# Beijing Oriental Yuhong Waterproof Technology Co., Ltd.

# **Sustainability Report 2020**





#### 北京东方雨虹防水技术股份有限公司 BEIJING ORIENTAL YUHONG WATERPROOF TECHNOLOGY CO,LTD.

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## **About the Report**

**Reporting Period:** This report is published annually.

**Scope of the Report:** Take Beijing Oriental Yuhong Waterproof Technology Co., Ltd. as the subject, including its subsidiary companies and branches, business division and production bases and other branch units.

**Reporting Period:** The reporting period is from January 1 to December 31, 2020. In consideration of continuity and comparison of disclosure, a part of information is extended back or forth on the basis of time.

**Abbreviations Used:** The word "Oriental Yuhong" or "the Company", "the Group" herein refers to Beijing Oriental Yuhong Waterproof Technology Co., Ltd.

**Report Compilation Principles:** Objectivity, standardization, sincerity, and transparency.

**Sources of Data:** Related information and data herein are from Beijing Oriental Yuhong Waterproof Technology Co., Ltd. and its wholly-owned subsidies or holding companies.

#### **Report Improvement:**

Take the *Sustainability Reporting Guidelines* (G4) of the Global Reporting Initiative (GRI) and national series standards on social responsibilities.

In the process of compilation of the report, stakeholders such as partners, employees, NGOs and others were invited to participate, and roles of the reports in stakeholders' communication and the corporate social responsibility performance monitoring are brought into play.

**Compilation Basis:** Compiled with reference to the *UN SDG Compass* and the *China CSR Report Formulation Guide* of the Chinese Academy of Social Sciences (CASS) (CASS-CSR4.0).

**Language:** The report is presented in Chinese and English.



Access to the report: The report is published only in electronic version. You can visit the Company's website http://www.yuhong.com.cn for an online PDF version, or scan the right side QR code to obtain the electronic edition. (Contact telephone: 010-59031914, Email: xiejj@yuhong.com.cn).



# **Sustainable Development Goals**

# **Oriental Yuhong and SDGs**

Sustainable Development Goals (SDGs)	Oriental Yuhong in Action
1 2 ST No poverty Zero hunger	The Company conducted the charity fund activity of "fulfilling corporate responsibility, supporting targeted poverty alleviation" in areas such as Fengnan Town, Liushuhuan Town, Heiyanzi Town in Tangshan, Liuzhai Village at the Xinyiyao Bay in Xuzhou and Qianyang Town in Shaanxi Province, and formulated profiles for the poverty-stricken to achieve targeted poverty alleviation.
Good health and well-being	Oriental Yuhong has organized voluntary blood donation for 11 consecutive years.
Quality education	The Company joined the education support activity on the theme that "Love Changes Destiny" organized by the Yunxi District Charity Federation by offering scholarships to impoverished students in No. 1 Middle School of Linyi County, Dezhou City for nine consecutive years.
5	Oriental Yuhong practices equal pay for equal work and respects female employees.  Besides, it provides the disabled with equal employment opportunities.



All production bases constantly promoted 5S management and lean production, kept improving the production site, and ensured energy-saving, safe, and efficient production.

The Company obtained the China Green Product Certificate, the CTC Green Product Certificate (CTC short for China Building Material Test & Certification Group Co., Ltd.), the China Environmental Labeling, the German GEV Certificate ("GEV" short for Association for the Control of Emissions in Products for Flooring Installation, Adhesives and Building Materials), and the French A+ Class for VOC emissions.

It pushed forward the R&D and application of green products featuring high performance and environmental protection.

Oriental Yuhong empowered green building and vigorously developed nearly zero energy buildings.

It earnestly drove energy-saving projects, such as PV power generation, low-temperature operation of heat conduction oil, solar heating, and boiler/air compressor waste heat reuse.

100% of its employees signed the labor contract and accessed social insurance.

The China National Accreditation Service for Conformity Assessment (CNAS) granted the certificate of National Accredited Laboratory to the Company.

The suppliers' meeting was regularly held. Procurement was open, fair, and just. Tendering management was sound.

Clean water and sanitation Affordable and clean energy







Oriental Yuhong has striven to create a responsible investment system, established a benchmark in the building material investment in China, and continuously deepened and improved the sustainable development model. In order to achieve its strategy of sustainable development, Oriental Yuhong has incorporated ESG standards into its business management effectively managed ESG risks, and identified corresponding business opportunities. Oriental Yuhong aims to become the most valuable waterproof enterprise across the world. Its corporate tenet is for the motherland, for the society, for customers, for employees, and for shareholders. The



Company has been compliant and honest, constantly improved its profitability and product and service quality, reinforced resource conservation and environmental protection, and contributed to sustainability of society.

#### **Corporate Governance**

We have always been committed to maintaining sound corporate governance to ensure steady and wholesome development and create sustainable economic benefits.

Category	Indicator	Performance in 2020
	Operating revenue	2,173,037.30 (Unit: RMB'0,000)
	Cost of sales	1,368,083.22 (Unit: RMB'0,000)
Financial performance	Operating profit	420,351.47 (Unit: RMB'0,000)
1 manetar per tor manee	Total taxes	190,115.14 (Unit: RMB'0,000)
	Net profit	338,680.97 (Unit: RMB'0,000)
	Total current assets	1,938,743.14 (Unit: RMB'0,000)
Products and services	R&D spending	46,365.37 (Unit: RMB'0,000)
Information disclosure	Information disclosure assessment by the Shenzhen Stock Exchange (SZSE)	A (Excellent)

#### **Social Performance**

We have actively shouldered our corporate social responsibilities (CSRs), created value for society, added benefits to the public, and acted as a responsible "corporate citizen".

Category	Indicator	Performance in 2020
	Number of employees	9919
F b	Employment contract signing rate	100%
Employee benefits	Coverage ratio of social insurance	100%
	No. of female employees	2120

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	Proportion of females in the management	23.29%
	No. of employees from ethnic groups	358
	Employee satisfaction	100%
	Investment in the care fund	972.65 (Unit: RMB'0,000)
Employee growth	No. of trainees of waterproof skills	4162
Employee growth	Coverage rate of employees training	100%
	No. of newly recruited employees	4685
Creation of jobs	No. of newly recruited employees younger than 35 years old	3850
	No. of newly recruited fresh graduates	128
Tax Payment according to laws	Growth rate of annual tax payment	19.93%
Public welfare and charity	Expenditures for public welfare 246.27 (Unit: RM	

#### **Environmental Performance**

Oriental Yuhong highlights the influence of production and operations on the environment. Therefore, it has constantly raised investment in environmental protection, pursued "green development, and built "Beautiful China".

Category	Indicator	Performance in 2020
	Main expenses for environmental protection	
	Main safety expenses	3018.7 (Unit: RMB'0,000)
Green development	Green manufacturing	National Green Factory
Green development	Green product certificates	China Green Product Certificate CTC Green Product Certificate China Environmental Labeling German GEV Certificate French A+ Class



## **Company Overview**

Oriental Yuhong, incorporated in 1995, has grown into an outstanding building material systems service provider in the past two decades, by providing high-quality and system solutions for tens of thousands of important infrastructure construction projects, industrial buildings, civil buildings and commercial buildings. It was listed in 2008 and recorded an operating revenue exceeding RMB20 billion in 2020. It obtained multiple domestic and international certificates, such as the EU CE mark, the EMICODE EC1, the U.S. FM Approved mark, and the Energy Star granted by the U.S. Environmental Protection Agency (EPA). Besides, it was granted honors like the 17th "National Quality Award", the 2017 "National Quality Benchmark", and the title of "Demonstration Enterprise in Technological Innovation of China". The Company won the National Science and Technology Progress Award Second Prize in 2019 and was included in 2020 Fortune China 500.



Oriental Yuhong has pursued quality and robust progress, focused on waterproof business, and extended its presence to the upstream and downstream and relevant industrial chains. It has developed a building material service system consisting of business segments, such as engineering waterproof, civil construction materials, non-woven fabrics, architectural coating, building renovation, energy saving and heat preservation, and mortars and powder. Oriental Yuhong holds more than 100 subsidiaries including Shanghai Oriental Yuhong Waterproof Technology Co., Ltd.,



HK Oriental Yuhong Investment Co., Ltd., and Oriental Yuhong North American Co., Ltd., etc. It has manufacturing, R&D, and logistic bases respectively in Shunyi District in Beijing, Jinshan District in Shanghai, Yueyang City in Hunan Province, Jinzhou City in Liaoning Province, Huizhou City in Guangdong Province, Xuzhou City in Jiangsu Province, Dezhou City in Shandong Province, Kunming City in Yunnan Province, Tangshan City in Hebei Province, Xianyang City in Shaanxi Province, Wuhu City in Anhui Province, Hangzhou City in Zhejiang Province, Qingdao City in Shandong Province. It has more than 80 advanced production lines. Especially, it has introduced over 50 sheet material production lines from United States-based R&D Systems and Italy-based Boato International. Moreover, it has adopted production equipment of polymer waterproofing materials of KraussMaffei, technologies of EIRICH and Siemens, and concept design of Bayer. It has realized whole-procedure automatic production and established the benchmark of high capacity, high precision, and high stability. In addition, its services cover a radius of 300km. Hence, it can reach the customer within 24 hours.

Oriental Yuhong pursues sustainable development continuously. It promotes the scale development with science and technology advancement, product excellence, service satisfaction, and safety & environmental protection. It has been authorized to build state key laboratory of special-purpose waterproofing materials, and has established national-certified corporate R&D center, academician work station, and post-doctoral work station, etc. With the ever-improving R&D system, the Company has built four R&D centers for product R&D, production technique and equipment, application technology, and construction engineering technology, respectively. It has also established a vocational technical institute that is designated to raise standardized construction services and skills and cultivate workers with global competitive edge. Furthermore, Oriental Yuhong has built a global excellence research center of waterproof coatings in the U.S. in order to keep up with the international R&D level.









As a provider of construction materials and systems, Oriental Yuhong has successfully applied various excellent products and services to buildings, highways, urban roads and bridges, metros, urban railways, high-speed railways, airports, and water conservancy facilities. Outstanding examples are China's representative buildings, e.g. China's Great Hall and 2008 Beijing Olympics including the Bird's Nest and the Water Cube, as well as important national infrastructure construction projects such as Beijing-Shanghai high-speed railway, and Beijing Metro. Oriental Yuhong has established long-term, friendly and stable strategic cooperation relationship with more than 300 large real estate developers such as Vanke, Evergrande and SUNAC. It has sold its products to families through nearly 2,000 house decoration companies and building material markets, for instance, Yenova Decoration, Kuoda, Yuanzhou, and Jinzhao.

Oriental Yuhong is always making efforts to realize the dream of a "globalized Oriental Yuhong", making contribution to building a harmonious habitat for people, and fulfilling the corporate vision of "building a durable and safe environment for human being and the society". With the implementation of Oriental Yuhong's international strategy, the products of company are exported to more than 100 countries and regions such as Germany, Brazil, Australia, the United States, Canada, Russia, Japan, Singapore, South Korea, Central Africa and South Africa.





#### Milestones in 2020

In January 2020, Oriental Yuhong was recognized as a "Most Trustworthy Listed Company for Investors" and awarded the National Science and Technology Progress Award Second Prize. Besides, it joined hands with Beijing GeoEnviron Engineering & Technology, Inc (BGE), its sister company, and Tiandingfeng Holdings Co., Ltd. (TDF), its wholly-owned subsidiary, to support the anti-pandemic construction projects of the "Huoshenshan Hospital" and the "Leishenshan Hospital" in Wuhan.

In February, it continued to assist in more than 20 emergent anti-pandemic construction projects based on the "Xiaotangshan Hospital" model of Beijing. It reasonably and orderly resumed work and production. Meanwhile, it was rated as a "Class-A Supplier" by Vanke Group for seven consecutive years.

In March 2020, Oriental Yuhong and its five brands were recognized as a 2020 Preferred Supplier and Service Provider Brand for Best 500 of China Real Estate Developers. With a brand preference rate of 36%, it was ranked top among the "Preferred Waterproof Brands for Best 500 of China Real Estate Developers" for nine consecutive years.

In April 2020, the Company obtained the Certificate of Registration of the trademark, "YUHONG", from the Canadian authority.

In May 2020, the Company was included in the "Top 50 A-share Listed Companies in Financial Health" and the "Top 50 Core Capitals" for 2020 A-shares



and granted the "Most Valuable Brand Award" at the 2nd China Branding Forum. In the meantime, it was included in the "2020 China Brand Evaluation" with brand strength of 939 points and the brand value of RMB13,189 million, up by 40% YoY.

In June 2020, Oriental Yuhong attended the 127th China Import and Export Fair (Canton Fair) online and won the "Award for Listed Company with Excellent Value of the Year".

In July 2020, the Company was included in the 2020 *Fortune* China 500. Its HDPE was authorized a Singapore patent for invention. Oriental Yuhong and its brands were granted multiple awards, including the "Influential Engineering Waterproof Brand".

In August 2020, the Company was included in the "14th (2020) Chinese Listed Companies Evaluation". On 11 August, the market cap of Oriental Yuhong (002271) surpassed RMB90 billion for the first time. Bituminous waterproofing sheet materials (modified bituminous), water-based waterproof coatings, and polymer waterproof sheet materials (plastic) obtained the "China Green Product Certificate".

In September 2020, Oriental Yuhong was included in the "2020 China Top 500 Private Manufacturing Enterprises" and the 2020 Top 500 Chinese Manufacturing Enterprises. It was rated as "Excellent" in the information disclosure assessment by the SZSE for six consecutive years. Besides, it obtained the qualification of occupational skill certification of 14 types of jobs including "waterproof workers".

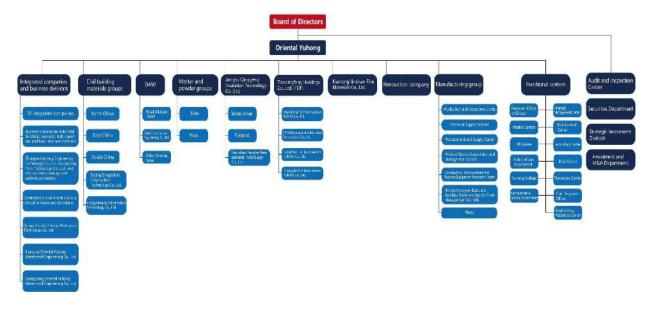
In October 2020, the Oriental Yuhong & SINOPEC Yanshan Petrochemical Joint Lab was inaugurated. Oriental Yuhong was ranked 23rd among the "2020 Beijing Top 500 Private Enterprises". It signed an investment agreement with Chengdu City Construction Investment & Management Group Co., Ltd. (CDCI) to initiate deep cooperation in green building materials.

In November 2020, Oriental Yuhong swept all rivals at the 2020 "China Building Material Industry Occupational Skill Competition -- Occupational Skill Competition of Building Waterproof Industry (Waterproof Workers)". Meanwhile, it obtained multiple honors. For example, it was included in the "Hurun China's Top 500 Private Enterprises in 2020". Its independently developed product, GES, won the 2020 Innovative Research and Excellent Procurement Block Technology Award. Five skilled workers were granted the title, "Construction Workers of the Year in China". Besides, the Company was recognized as a "2020 Demonstration Enterprise in Building Material Industry Regarding Integration of Informationization and Industrialization" and "2020 Demonstration Enterprise in Building Material Industry Regarding Intelligent Manufacturing" and awarded the 22nd CSR Award of Golden Bull Award for Listed Companies.

In December 2020, Oriental Yuhong won the "Jinyu Award" for seven consecutive years. Up to now, it has obtained 11 golds and six silvers. The Company was included in the "Top 50 Among Top 300 A-share Listed Companies Regarding Future Value for 2020". It also won multiple titles, such as the Organization of Managing Director of China Council for Brand Development (CCBD), "Respectful Enterprises of the Year", "First Batch of Demonstration Organizations Applying International/National Standards for Brand Evaluation", and "2020 Model of Targeted Poverty Alleviation". Mr. Li Weiguo was elected the President of the 8th China National Building Waterproof Association (CWA) Council and included in the "2020 China CEO 100".



## **Corporate Chart**



# **Business Ethics and Corporate Behavior**

Oriental Yuhong has conformed to all market rules, respected market laws and its peers, objected unfair competition in any form, and disdained vicious competition. It has cherished all intermediaries and its partners in the market and co-existed and sought common progress with them honestly and respectfully.

The Company obtains all from the market and for the market. It opposes corruption, black case work, and frauds and adheres to the business principles of "honest, trustworthiness, frankness, and openness". Additionally, it abides by business norms, ethical guidelines, all laws and regulations, and respects social customs and religious beliefs. It has built an integrated management system to support its excellent development by considering the excellent performance management model as its framework, compliant operations as its basic principles, process management as its core, and integration of informationization and industrialization as its means.



#### I. Mechanism of Social Responsibility Management

Oriental Yuhong has kept enhancing its modern corporate governance structure. It has properly handled the relationships among investors, decision-makers, and managers, and with stakeholders, while ensuring the return to investors. Moreover, it has strengthened the enthusiasm of all parties, reinforced its comprehensive risk resistance, and achieved sustainable development.

To fulfill social responsibility is the inner factor of Oriental Yuhong. Through whole system and multi-dimensional responsibility management concept, and starting from research and development, production, sales, construction and other aspects, Oriental Yuhong strives to provide much better products and services by more environmental friendly, more energy efficient, safer and more effective means, and implants the concept of responsibility into its daily production operation.

				Responsibil	ity concept			
G . 1	Clarification of social responsibility Communication and participation of stakeholders						olders	
Social responsibility management	Responsibility practices							
system	Corporate governance							
	Sustainable development	Human rights	Labor practices	Resources and environment	Fair operation	Customers	Community participation	Public welfare

Oriental Yuhong established a social responsibility work team, whose chief is Oriental Yuhong's President and whose members are General Managers of Oriental Yuhong subsidiaries and divisions, directors of different centers and factories. Members work in concert to push forward the social responsibility fulfillment of their units.



# II. Communication and Participation of Stakeholders

Stakeholder	Requirements and Expectations	Communication Method	Response
Governments	Complying with laws and regulations	Release of policies and instructions	Strictly complying with laws and regulations
Governments	Creating job opportunities	Expansion of reproduction	Providing adequate jobs
	Corporate governance	Easy IR Field survey	Performing robust operations and truthfully reporting operations and governance
Shareholders	Continuous growth of operating result	Regular release of reports and performance briefings	Perfecting information disclosure
	Salary and benefits	Employee survey	Multi-dimensional and detailed questionnaire
Employees	Training and growth	Exchange through WeMedia and the Yuhong College	Survey on training demands and media communication
	Career development	Face-to-face communication	Protection of employees' rights and interests
Customers	Customers  Quality products and services  Quality products and and after sales  DMS system		Project quality assessment
	Open, fair, and just procurement	Supplier meeting SRM system	Perfect tendering management
Suppliers	Qualification review	Seminars	Compliant and well-organized operations
	Honest management	Routine business exchange	Internal audit and inspection
Industry	Promoting quality improvement of the industry	Demonstrating product and service quality	Leading positive growth of the industry
Communities and	Participating in community development	Volunteer activities of employees	Contributing to society
social groups	Supporting public welfare undertakings	Charitable activities	Providing professional support

Stakeholder	Requirements and Expectations	Communication Method	Response
	Environmental protection	Energy saving and emissions reduction	Driving the realization of carbon neutrality

#### **Examples of communication with stakeholders**

Shareholders In 2020, Oriental Yuhong made a total of 157 public notices throughout the year, of which, four were made on a regular basis in order to ensure investors' timely supervision and transparent operation of the Company. The Company held five, 16, 18, and seven meetings of the General Meeting, the Board of Directors, special committees under the Board of Directors, and the Supervisory Committee, respectively, throughout the year to ensure standardized operations. In addition, the Company organized investor's visit and survey to the Company for many times, introducing to them the Company's production and operation conditions and development strategy, answering questions of the analysts about sales model, operating performance, investment growth, and research and development capabilities etc. At the same time, the Company also answered more than 100 telephone calls from investors, and replied 120 times of Internet counseling.

Customers In 2020, Oriental Yuhong received 10,723 visitors from 1,341 delegations, wherein 4,374 visitors were from 413 delegations in Beijing. Delegations primarily visited the Headquarters in Beijing and the coating and coil workshops, warehouses for finished products, labs, and exhibition halls of models of production bases. In particular, Vvupup.com shot a video on a "super factory" at a production base and had a deep understanding of the internal structure of the production base and product characteristics of Oriental Yuhong.

**Society** The COVID-19 pandemic broke out in January 2020. Oriental Yuhong devoted itself to emergent anti-pandemic construction projects nationwide. Front-line workers worked day and night against time. Upon completion of the Huoshenshan Hospital and the Leishenshan Hospital in Wuhan, the Company continued to join the construction of hospitals based on the "Xiaotangshan Hospital" model and "shelter hospitals" in other places in line with anti-pandemic requirements. Oriental Yuhong,



as a building material systems service provider, undertook a large number of waterproof tasks, urgently scheduled its teams, and made full use of every minute to support emergent anti-pandemic construction projects around the country, including Jingmen, Xiaogan, Suzhou, Bengbu, Xi'an, Guiyang, Xianyang, Harbin, Fengcheng, Linyi, Jinzhong, Zhuhai, Shenzhen, Beijing, Hanzhong, Huizhou, Lvliang, and Xinzhou.

**Employees** The Company has implemented an equity incentive policy for middle and senior management, core business and technical personnel. The Company has launched three phases of equity incentives to incentive recipients when they met the conditions, with a total of 3,200 incentive recipients in the three phases, and conducted two equity unlocking and two buyback cancellation in 2020 to return staff with true identity, true belief and true struggle. Employees are improving themselves, recognizing the corporate culture, and realizing their value and dreams through the platform of Oriental Yuhong.

**Suppliers** The "2020 Summit of China Top 500 Real Estate Developers" was jointly held online by the China Real Estate Association, the E-house China R&D Institute, and the China Real Estate Evaluation Center on 18 March 2020. The Evaluation Report on 2020 Preferred Supplier and Service Provider Brands for Best 500 of China Real Estate Developers was published at the same time. Oriental Yuhong as well as its brands, including Woniushan (building insulation), DAW (coating), Vasa (tile glue), Oriental Yuhong Building Renovation, and Lodi (diatom mud), were recognized as "2020 Preferred Brands for Best 500 of China Real Estate Developers".

Communities In the past few years, Oriental Yuhong organized several lecturers on waterproof benefiting the public in communities. It explained waterproof knowledge in detail, exchanged with residents, and answered their questions on waterproofing during home decoration. During the pandemic period in 2020, the Company actively responded to anti-pandemic demands in communities. It exerted great efforts to prevent and control the pandemic, while reasonably resuming work and production. Multiple defense lines were built to fight against the virus.



Industry In the recent years, Oriental Yuhong participated or presided over the revision of dozens of national or industrial standards, such as Environmentally friendly Building Materials and Decoration Materials Technical Requirements, Single Layer Waterproof Coiled Material Roofing Engineering Technical Specification, the Ceramic Tile Glue, the Waterproof Coating Film Under Bonding Layer of Ceramic Tile, the Pre-paved Waterproof Sheet Materials, the Measurement Methods of Active Ingredients and Hazardous Substance in Silane/Siloxane Preventative Agents, the Bituminous Raw Materials for Use of Waterproofing Materials Technical Requirements, the Technical Conditions and Evaluation Methods of Heat-reflecting Materials for Outer Walls and Roofs, the Root Penetration Resistance Waterproof Sheet Materials for Roofs with Plants, the Terminology of Bituminous Waterproof Sheet Materials, and the General Technical Specifications for Mobile Engineering Test Labs, and promoted the quality improvement of the waterproof industry.

**Society** On 26 January 2020, the 2020 Spring Festival Expert Party was held in Beijing. The event, on the theme of "Appreciation for You", was jointly held by the CWA and Oriental Yuhong. Participants reviewed the remarkable results and imagined the new prospects of the waterproof industry. Oriental Yuhong is looking forward to joining hands with more responsible experts to forging ahead and jointly bringing a better future to the industry.

Oriental Yuhong is a member of many social groups and organizations. For example:

China Association for Quality

China National Building Waterproof Association

China Real Estate Association

China Building Materials Federation (CBMF)

China Building Materials Companies Management Association

Beijing Federation of Industry and Commerce

Beijing Technology and Finance Promotion Association

Beijing Sci-tech Consultation Association

Beijing Building Materials Federation (BMF)

Beijing International Sci-tech Cooperation Bases League
Beijing Enterprise Technology Center Innovation Service League (BETC)

### **III. Identification of Substantive Topics**

Oriental Yuhong identified topics from many stakeholders by effective communication with stakeholders and reference with the Sustainability Reporting Guidelines so as to determine substantive topics on CSRs in the Oriental Yuhong Sustainability Report 2020.

Identification (of Topics from Many Stakeholders)	Торіс
Interaction at the WeMedia platform of Oriental	Standardized corporate governance
Yuhong	Compliant information disclosure
Customer's feedback	Operations and governance
Channel of social media	Quality management system of products &
Inquiry of and communication with investors	services
Community participation	Employee relationship/talent cultivation
Supervision by relevant government agencies	Fair and reasonable remuneration system
Work conferences of industry associations	Safe production management system
Survey on industry development trends	Energy conservation and consumption
Reasonable suggestions from employees	reduction/energy consumption
Survey on and online communication with	Profit to shareholders
shareholders	Labor protection
	Supply chain management
	Human rights of workers
	Compliant tax payment
	After-sales tracking service
	Policy support of suppliers
	Promotion of industry development

## **Anti-pandemic Efforts**

In the face of the COVID-19 pandemic in 2020, Oriental Yuhong actively responded to anti-pandemic arrangements nationwide by immediately establishing a



leadership team and a work team for pandemic control and prevention and adopting pandemic prevention and control measures to protect employee health and safety. The Company followed the idea of "one in difficulty and all will support". All its employees united to overcome the difficulties together. Oriental Yuhong, as one of the countless volunteers, upheld the guiding principle of "serving the country by developing industry, benefiting the people with good services", and worked together with people from all industries to fight against the pandemic with persistence, courage, and resolution as well as effective execution and action. In March 2020, Oriental Yuhong received a certificate of honor from the "Red Cross Society of China Wuhan Branch", commending its care and support for pandemic prevention and control in Wuhan.



## I. Anti-pandemic Examples

During the fight against the pandemic, Oriental Yuhong worked with its partners, branches, and subsidiaries in the country to rush to over 20 cities, including Wuhan, Jingmen, Xiaogan, Suzhou, Bengbu, Xi'an, Guiyang, Harbin, Zhuhai, Daya Bay, Huizhou, Shenzhen, Beijing, Jinzhong, Xinzhou, and Lvliang, Shanxi to assist in emergent anti-pandemic construction projects. The Company provided quality waterproofing materials and construction services to hospitals based on the



"Xiaotangshan Hospital" model in the above areas and protected the safety of medical workers and patients. In addition, it endeavored to fulfill its mission of "building a durable and safe environment for human beings and the society" in line with the guiding principle of "serving the country by developing industry, benefiting the people with good services".

**Example 1** Projects of the Huoshenshan and Leishenshan Hospitals: On 23 January 2020, front-line workers from Oriental Yuhong were sparing no effort to meet the deadline with good quality at the construction site of the Huoshenshan Hospital. At last, they completed the waterproof task ahead of the schedule. Soon, the construction of the Leishenshan Hospital in Wuhan started on 25 January. Oriental Yuhong's workers then rushed to the next construction site. Meanwhile, Jingmen Oriental Yuhong Construction Materials Co., Ltd. (hereinafter referred to as "Jingmen Oriental Yuhong") quickly sent materials to the Leishenshan Hospital in Wuhan, after learning the demand: The Oriental Yuhong SAM-921 high-strength self-adhesive bituminous waterproof sheet material unhesitatingly headed for the front line.

**Example 2** Project of Anlu, Hubei, based on the "Xiaotangshan Hospital" model: On 11 February 2020, Oriental Yuhong went to support the construction of an emergent anti-pandemic project in Anlu, Hubei. Jingmen Oriental Yuhong and Oriental Yuhong Wuhu delivered materials overnight -- Oriental Yuhong SAM980 polyester self-adhesive bituminous waterproof sheet materials.

**Example 3** Project of Heilongjiang based on the "Xiaotangshan Hospital" model: Heilongjiang Province urgently took over Hanan Branch, the Second Affiliated Hospital of the Heilongjiang University of Chinese Medicine and transformed it into a pandemic treatment center commensurate with requirements for the treatment of Category A infectious diseases. Harbin Oriental Yuhong Waterproof Engineering Co., Ltd., a partner of Oriental Yuhong, accepted the challenging waterproof task. Oriental Yuhong's front-line workers continuously worked for 10 hours overnight from 8:00 p.m. on 8 February to deliver the task in advance and saved one precious day for the project.

**Example 4** Emergency project in Suzhou City: On the evening of 31 January 2020, Oriental Yuhong transported materials to the Fifth People's Hospital of Suzhou. Besides, it formed a 20-worker construction team to assist in the construction. The project adopted Oriental Yuhong 1.5mmTPO sheet materials.



**Example 5** Anti-pandemic project in Bengbu City, Anhui: Phase I covering an area of 3,000m2 of the anti-pandemic project of the Fifth People's Hospital of Bengbu City was in progress on 1 February 2020.

**Example 6** Project of Beijing Xiaotangshan Hospital: On 1 February 2020, Oriental Yuhong received the construction task of the hospital. We immediately transported materials and workers to the construction site.

**Example 7** Renovation project of the People's Hospital of Xinzhou City, Shaanxi Province: Oriental Yuhong quickly deployed 1,700 square meters of SBS modified bituminous waterproof sheet materials from its partner factory and let Xinzhou Oriental Yuhong Waterproof Engineering Co., Ltd. complete the waterproof task.

**Example 8** Emergency project in Zhuhai: On 6 February 2020, the construction of the Fenghuangshan Zone, the Fifth Affiliated Hospital Sun Yat-sen University, kicked off. Fudatec under Oriental Yuhong offered XPS eco-environmental protection extruded polystyrene boards.

**Example 9** Project of the Jiangxi Fengcheng Shelter Hospital: On 19 February, 3,000 square meters of SAM-921 high-strength self-adhesive bituminous waterproof sheet material were delivered from the Oriental Yuhong Wuhu Plant to Fengcheng, Jiangxi. Oriental Yuhong supported Fengcheng to fight against the pandemic.

**Example 10** Project of the Daya Bay Shelter Hospital: On 26 February, Oriental Yuhong Huizhou Branch and TDF, Oriental Yuhong's subsidiary, sent required materials to the construction site. Oriental Yuhong Shenzhen Branch arranged the waterproof engineering to support the construction of the hospital.

## II. Well-organized Work Resumption

Work resumption stabilized employment, while production resumption, the economy. Oriental Yuhong exerted unrelenting efforts for pandemic prevention and control, adopted safety protection measures, and stabilized production. In order to provide a safe workplace for its employees, the Company created a three-level anti-pandemic organization and accountability mechanism. It strictly implemented national and community anti-pandemic controls, fully sterilized all areas, and prepared anti-pandemic supplies. Meanwhile, it investigated and tracked its



employees in real-time and offered anti-pandemic training. Employees who resumed work were strictly inspected before entering the Company. Work and production were orderly resumed. During the pandemic period, Oriental Yuhong and its branches and subsidiaries closely cooperated with each other. They reasonably planned work policies for the current stage. Multiple new work modes were practiced. For instance, employees were arranged to go to the workplace by avoiding the peak hour or worked from home. Online training, technical exchanges, and meetings were held. Furthermore, the Company timely responded to the demands of customers at home and abroad. It comprehensively guaranteed its service quality and vigorously promoted business development through rapid response and effectiveness.

Oriental Yuhong intensified production and quality management during the pandemic period. Besides, it resumed production orderly in production bases in Tangshan, Huizhou, Jinzhou, Deyang, Yueyang, Xuzhou, Xianyang, Shanghai, Laixi, and Puyang to achieve both "pandemic prevention and control and production resumption".





## **Chapter I Quality Management**

This chapter discusses the responsible behavior of the Company in the market economy. The market performance responsibility of an enterprise is divided into two parts, namely, the economic responsibility for its own wholesome development and the economic responsibility for other stakeholders in the market.

2020 marked the final year of the 13th Five-Year Plan, and was also an extraordinary year in the history of the People's Republic of China. In the face of grim and complicated domestic and foreign environment, particularly the severe impact of the COVID-19 pandemic, people across the country joined hands to press ahead with all tasks in prevention and control of the pandemic as well as economic and social development. In the new development stages, China pursued the new development philosophy, built the new development paradigm, and stood firm in the direction of high-quality development. Meanwhile, it conscientiously accomplished the tasks of "Six Stabilities", and comprehensively fulfilled the tasks of "Six Guarantees". As a result, China's economic operation improved quarterly and went back to normal gradually, showcasing remarkable resilience and capability of resistance to impact. In the meantime, however, the pandemic is still spreading across the globe. Unstable and uncertain factors in international situations are on the rise, so the foundation for the recovery of the domestic economy remains shaky.

#### I. Corporate Governance

#### (I) Operating Targets

During the Reporting Period, the Company adhered to its strategic positioning of high-quality and sound development, gave top priority to risk control, insisted on sound operation, innovation and technological leader, remain committed to centering on customers, and pursued long-term objectives and ongoing hard work. On the basis of quality products and professional system services, it provided customers with high-quality, professional and complete system solutions, built a one-stop system



service platform, made sustained efforts to become an extraordinary building material systems service provider, and dedicated itself to becoming the most valuable firm in the industry of building materials across the world. During the Reporting Period, the Company had always been oriented by customer demand. By focusing on advancing waterproof business, it extended business to the upstream and downstream and related industrial chains, and formed a system service system of building materials integrating such business sectors as engineering waterproof, civil building materials, energy conservation and heat preservation, building coating, non-woven fabrics, building renovation, special mortar, and building powder. It brought together its development advantages, harnessed synergy, and built a deeper and wider moat for the Company. Additionally, the Company continued to improve its belief and cohesive force by fully implementing corporate culture and core values which are based on common striving, long-term striving and hard striving.

In 2020, as the economic activities of the waterproofing industry continued to recover, the overall development of the industry showed a trend of going from low to high. The overall output growth of waterproof materials eased, but the growth in main economic indicators, including major business revenue of waterproofing industries above designated size (with major business revenue of more than RMB20 million) and total profits, met the expectations, and the industry benefits further improved. According to the statistics of China National Building Waterproof Association (CWA), in 2020, the output of waterproof building materials was expected to be 2,515 million square meters, and expected to grow by 3.6% year-on-year. From January to December, the major business revenue of 723 waterproof enterprises above designated size totaled RMB108.7 billion, representing a YoY increase of 4.6%. The total profits of enterprises above the designated size reached RMB7,397 million, up by 12.07% YoY.

During the Reporting Period, the Company recorded operating revenue of RMB21.73 billion, up by 19.70% from last year. Its total profits were RMB4,155



million, which rose by 60.32% from last year. Its operation status was largely consistent with the industry development.

Currently, with low concentration, market fragmentation and unhealthy competition, the domestic construction waterproofing industry features "many small firms in a large industry". Among the many waterproofing firms, only a few can provide good services, while the many others are of a small size with outdated technology and production technique. The market is flooded with counterfeit and shoddy products. And the industry is trapped in excessive lagged output capacity, unhealthy competition and environmental issues. In the recent years, with the rollout of quality inspection, environment inspection, safe production and green and energy conservation policies, a higher threshold for industry access, a product structure upgrade, higher quality requirements of downstream customers, as well as increasing competitiveness of large waterproofing companies, the waterproofing market is witnessing increasing concentration towards leading companies. Oriental Yuhong competes in the waterproof construction material industry, a segment of the construction material industry. Waterproof materials are functional materials indispensable for modern architecture. As cities keep growing, waterproof construction materials will be applied to more and more areas with great growth potential and prospects.

The Company ranks top in such respects as R&D strength, process equipment, application technology, marketing model, professional system service capability, and brand presence, and attains a prominent position in the industry. Main raw materials of products and their supply. Main raw materials required by the Company's production include asphalt, polyether, polyester asphalt, chain extender, emulsion, MDI and SBS modifiers, among others. The supply is sufficient and stable. Among them, asphalt is one of the main raw materials of the Company. During the Reporting Period, the prices of some raw materials represented by asphalt dropped, thus driving up the overall gross profit margin of the Company.



In 2020, Oriental Yuhong obtained total credits of RMB15,131 million from Industrial and Commercial Bank of China (ICBC), China Construction Bank (CCB), Bank of Communications, Bank of China (BOC), Agricultural Bank of China (ABC), the Export-Import Bank of China, CitiBank, HSBC, Standard Chartered, Hang Seng Bank, BEA, Bank of Beijing, China Minsheng Bank (CMBC), Ping An Bank, Bank of Ningbo, China CITIC Bank, Industrial Bank Co., Ltd. (CIB), SPD Bank, CGB, Huaxia Bank, China Everbright Bank (CEB), Hengfeng Bank, China Merchants Bank (CMB), China Zheshang Bank (CZBANK), Bank of Kunlun, Bank of Jiangsu, Bank of Nanjing, Bank of Cangzhou, Wuhu Yangzi Rural Commercial Bank, Huishang Bank, Zhongyuan Bank, Cathay United Bank, Beijing Rural Commercial Bank, and Shanghai Rural Commercial Bank (SRCB). Especially, China Construction Bank (CCB) rated the Company as Class 5. The Company and its holding companies are honest in operations with a favorable credit profile and without any interest or principal in arrears.

#### (II) Management Mechanism

On the basis of strict compliance with the original system regulations, Oriental Yuhong further improves its corporate governance structure, complies with the social ethics, business ethics, constantly perfects the system of Board of Directors and Board of Supervisors, and improves the Company's scientific management level.

Oriental Yuhong establishes systems of Shareholders' General Meeting, the Board of Directors, the Board of Supervisors, independent directors, and Board Secretary, with clear functions and powers, operation in coordination for effective checks and balances, and the Board of Directors consists of four special committees, namely, Strategy Committee, Audit Committee, Compensation and Evaluation committee, and Nomination Committee. Shareholders of the Company exercise their powers in accordance with the Company's Articles of Association, *Rules of Procedure of the Shareholders' General Meeting* based on the *Company Law*, *Security Law* and

other laws and regulations. Meanwhile, the Company perfected its policy system in

line with laws and regulations.

The Company Law of the People's Republic of China Labor Contract Law of

the People's Republic of China

Accounting Law of the People's Republic of China Administrative License Law

of the People's Republic of China

Trademark Law of the People's Republic of China Provisions on the

Administration of Qualifications of Construction Enterprises

Oriental Yuhong has properly handled the relationships among investors,

decision-makers, and managers, and with stakeholders, while ensuring the return to

investors. Moreover, it has strengthened the enthusiasm of all parties, reinforced its

comprehensive risk resistance, and achieved sustainable development.

In addition, the Company practiced the Basic Rules of Oriental Yuhong,

earnestly protected the interests of investors, disclosed major matters related to itself

in conformity with laws and regulations in a timely, accurate, truthful, and complete

manner so that the outside could promptly learn its finance, production, operations,

and governance.

The Company constantly perfected its policy documents. In accordance with the

revision of superior laws, it streamlined policies related to the standardized operation,

revised and perfected relevant clauses of some policies, and fulfilled approval

procedures of the Board of Directors and the General Meeting by law.

(III) Social Recognition

Oriental Yuhong has been recognized in society, thanks to its quality operations,

products, and services. Some of the honors and titles obtained by the Company in

2020 are listed below:

**Example: Industry recognition** 

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Industry Recognition	Honors and Titles
China National Building Waterproof Association	Gold Award of the Jinyu Award Silver Award of the Jinyu Award
China Building Material Test & Certification Group Co., Ltd.	China Green Product Certificate
China Real Estate Association Chinese real estate procurement platform (Youcaiyun.com) Qian Jin Ding Big Data Research Center	Benchmark Enterprise in Assessment Report on Development of Supporting Supply Chain and Performance Credit for Best 500 of China Real Estate Developers in 2020
Information Center of Building Materials Industry China Development Strategy Institute for Building Materials Industry	2020 Demonstration Enterprise in Building Material Industry Regarding Integration of Informationization and Industrialization 2020 Demonstration Enterprise in Building Material Industry Regarding Intelligent Manufacturing
China Real Estate Research Institute China Real Estate Association China Real Estate Evaluation Center	Top among the "Preferred Waterproof Brands for Best 500 of China Real Estate Developers (Oriental Yuhong)  Top among the "Preferred Insulation Material Brand for Best 500 of China Real Estate Developers (Woniushan)  Second place among the Preferred Foreign-funded Coating Supplier for Best 500 of China Real Estate Developers (DAW)  Fourth place among the Preferred Tile Glue Supplier for Best 500 of China Real Estate Developers (Vasa)  Preferred Special Products for Best 500 of China Real Estate Developers (Building and repair of Oriental Yuhong)
Building Waterproof Branch, the China Construction Industry Association (CCIA)	Four projects were included in the White Paper of Waterproofing Materials and Technologies of High-quality Projects (Version 2020)

# **Example: Capital recognition**

Capital Recognition	Honors and Titles
Fortune China Wealth Management	Fortune China 500

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Department, China International Capital Corporation Limited (CICC)	
ChinaDataPay.com Cj2p.com	Top 50 A-share Listed Companies in Financial Health
Eastmoney.com	"Top 50 Core Capitals" for 2020
STCN.com	14th (2020) Chinese Listed Companies Evaluation  Top 50 Companies Listed on SME Board
Hurun Research Institute	Hurun China's Top 500 Private Enterprises in 2020
Yicai.com and Caijing.com.cn Times Media Group and Value Line	Top 50 Among Top 300 A-share Listed Companies Regarding Future  Value for 2020

#### **Example: Service recognition**

Service Recognition	Honors and Titles
Vanke Group	2020 Material and Equipment Supplier (Class A)
Shimao Group	2020 Special Contribution Award for Strategic Supplier
China Merchants Shekou Industrial Zone Holdings Co., Ltd. (CMSK)	Excellent Supplier in Strategic Cooperation
Greenland	2020 Best Strategic Cooperation Award
Excellence Group	2020 Best Collaboration Award
Haierhouse	Award of Excellent Supplier for Year 2020

# (IV) Strict Quality Control

Oriental Yuhong, as a building material systems service provider, has deemed quality as its foundation. It has established a product quality supervision and management center and formulated strict product control procedures. In terms of quality operations, the Company considers "compliant operations" as its basic



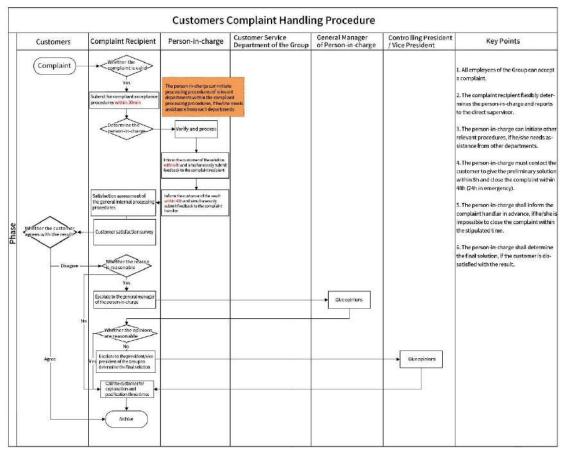
principles and "process management" as its core, upholds the concept of "quality first", and establishes good word-of-mouth through quality products and system services.

Relevant procedures in the whole business chain of Oriental Yuhong, such as R&D, procurement, production, inspection, sales, and construction, were disconnected, due to its rigid management and systematic restrictions. It took the Company a decade to interconnect its technology, products, management, and services and create a "Whole-Supply-Chain Management and Collaboration System for Unique Product Identity". From product R&D to procurement of raw materials, production process control, finished product inspection and control, and to sales and construction, each product has a unique identity based on a QR code, so it can be traced throughout the whole lifecycle. A five-in-one quality system ensures sound quality control. Additionally, in order to ensure product quality, Oriental Yuhong has set strict quality control procedures. There are five levels of inspection for the process from the entry of raw materials to the factory to the delivery of products outside the factory, which guarantees that products are qualified. In the meantime, Oriental Yuhong stresses quality control based on standards and applies one unified quality control standard for over 10 factories in the country. More than 1,000 internal control standards cover raw materials, intermediate products, and finished products. Therefore, products from all its factories boast consistent quality.

Oriental Yuhong has controlled product quality throughout the whole production process via the preventive quality control system and the third-party inspection and supervision model and endeavored to satisfy customers' quality requirements. The Company has centered on the guideline that "design is prerequisite, materials are basis, construction is key, and maintenance provides security" and conscientiously promoted the waterproofing system, the service system, and the comprehensive and standardized construction service system. Besides, it has incorporate construction services into product quality control and displayed the strong comprehensive strength as a building material systems service provider. Furthermore, Oriental Yuhong



considers the pursuit of excellence as the starting point of all work, keeps enhancing its core technical competitiveness, and strictly controls quality. Besides, it better adapts to the development trend of economic globalization, serves customers, and returns to society with quality products and services. The Company will continue to deepen its quality control, while improving its brand value. It will actively publish the reject ratio and fraction defective of relevant products in order to achieve open and transparent information disclosure and pursue perfection regarding quality control. Besides, it will stick to the idea that quality is the starting point of value and dignity.



## (V) International Business Operations

In 2020, Oriental Yuhong took differentiated measures in overseas market and formulated varied epitaxial and endogenous strategies. It created R&D platforms overseas and participated in increasing international exchanges and cooperation. At present, it has attracted the attention of mainstream foreign media, such as Bloomberg,



Associated Press News (AP), and Reuters. With the implementation of international measures, Oriental Yuhong is gaining a better reputation in the international market.

With the implementation of Oriental Yuhong's international strategy, the products of company are exported to more than 100 countries and regions such as Germany, Brazil, Australia, the United States, Canada, Russia, Japan, Singapore, South Korea, Central Africa and South Africa.

Example 1: Some of the international projects undertaken by Oriental Yuhong in 2020 are listed below:

Project Name	Product System
Oran Stadium of Algeria	TPO waterproof sheet material
Bank building project in Ethiopia	Base treatment agent
Huawei headquarters building	PU301 waterproof coating, acrylic acid HCA-101, elastomer
project in Angola	(SBS) bituminous sheet material and polymer cement JSA-101
Karachi nuclear power project in Pakistan	Polymer cement JSA-101 and GES310 waterproof coating
Maldives airport expansion	PMT-3020TPO and barium sulfate radiation-proof plastering
	mortars
Overseas tunnel of Saudi Arabia	Staple geotextile and composite waterproof board
Pokhara Airport of Nepal	Polypropylene filament geotextile
Zambia Telecommunications	Cement-based permeable crystalline waterproof coating and
(Zamtel) building	polymer cement JSA-101
New building of the Chinese	High-strength double-sided self-adhesive asphaltic waterproof
Consulate General in Dubai	sheet material
The Chinese Embassy in	Elastomer (SBS) bituminous sheet material and SAM930
Congo-Kinshasa	self-adhesive sheet material

#### Example 2:



In 2020, Oriental Yuhong was given the "Award of Excellent Supplier of the East Coast Rail Link Project for Year 2020" by the China Communications Construction Company (CCCC) East Coast Rail Link (ECRL) Project Management. In the new "Belt and Road" flagship project of ECRL, Oriental Yuhong provided strong support and guarantee. Throughout 2020, Oriental Yuhong supplied tunnel waterproofing systems for the project. As a result of the severe COVID-19 outbreak at home and abroad, unprecedented pressure and problems came one after another. For example, traffic was limited, shipping containers were scarce, and there were no vehicles to deliver materials in Malaysia. Under heavy pressure, Oriental Yuhong rose to the challenges following the service belief of "high efficiency and high quality". It ensured the timely and safe arrival of materials on the premise of strengthening pandemic prevention management and supporting protective facilities, which further enhanced the influence of Chinese enterprises and Chinese brands.





## II. Win-win Cooperation

In line with the concept of equality and win-win cooperation, Oriental Yuhong carried out in-depth cooperation with partners, maintained stable and efficient supply chain, continually promoted the concept of corporate social responsibility to supplier partners, actively expanded the development of the Company, its partners and the industry to jointly cope with challenges of environments and society of various types. With brand responsibility as its philosophy, Oriental Yuhong provided customers with the quality services of whole-process, multi-dimensions, and deep communication.



#### (I) Supply Chain Responsibility Management

Oriental Yuhong's major raw material suppliers are excellent domestic and foreign enterprises such as CNPC, Sinopec, Celanese, BASF, Basell, Wacker Chemicals. After years of cooperation, the Company went into close strategic relationship with the above-mentioned enterprises, and it is one of the largest clients of those enterprises.

Centralized purchasing is a major purchasing mode of Oriental Yuhong. With globalization, informatization, transparent procurement, honesty, environmental protection, and law observation as management concepts, Oriental Yuhong made win-win development with its upstream partners. The Company takes incoming inspection process, procurement management process, warehouse management process, production management process, appearance inspection process, quality management process, and technology management process as the main standards of site certification of the supplier to ensure supply product quality.

The Company also introduced surprise check to control product quality from the perspectives of technical research and development, process control, and warehousing logistics, and adopted long-term supplier access authentication system to carry on exchange and discussion in the technical aspects while ensuring product quality. Moreover, Oriental Yuhong adopted the attitude of vigorously supporting the dealers, relying on its distinctive brand positioning, forward-looking sales strategy, the Company assisted business partners to solve problems of financing and corporative operation, and provided complete technological support based on the principle of mutual trust, mutual benefits, equality and win-win prospect with the dealers. In view of the demand by a wide range of end-consumers for high-quality waterproof products, Oriental Yuhong makes itself accessible to the ordinary homes through large-scale domestic decoration companies and thousands of stores in building materials markets, such as Yenova Decoration, Kuoda, Easyhome, Gold Mantis, etc.



Committed to the comprehensive information-based, efficient and professional development of supply chain management, the Procurement and Supply Center kept improving the quality of internal services. It continuously improved the supply chain management capabilities of local factories' purchasing departments with the aim of minimizing the total cost of ownership (TCO); optimized various management indicators and performance appraisal programs, and effectively improved the effectiveness of supply chain management with a result-oriented approach; established an efficient supply chain from such aspects as corporate development, procurement management model, supplier performance and strategic supplier development, and promoted the continuous update of industry technologies and the continuous improvement of suppliers in multiple dimensions through joint development, so as to win the respect of peers and customers; became a partner with common values and achieved win-win results.

In 2020, Oriental Yuhong had technology exchanges with internationally renowned enterprises such as BASF, ExxonMobil, LyondellBasell Industries and Wacker Chemicals. Since its establishment, Oriental Yuhong has always adhered to internationalization and maintained close cooperation with many domestic and overseas chemical giants in multiple dimensions including technique, market, product and construction technology. Oriental Yuhong made unremitting efforts to create high-quality products and system solutions. It continuously carried out technological innovations to promote the sustainable development of the industry.

#### (II) Customer Responsibility Management

In recent years, Oriental Yuhong has transformed and upgraded from a service provider of waterproofing systems to a service provider of construction materials and systems, and has put forward the strategic vision of expanding to the national market. Currently, the Company has more than 30 manufacturing, R&D and logistic bases respectively in Shunyi District in Beijing, Jinshan District in Shanghai, Yueyang City



in Hunan Province, Jinzhou City in Liaoning Province, Huizhou City in Guangdong Province, Xuzhou City in Jiangsu Province, Dezhou City in Shandong Province, Kunming City in Yunnan Province, Tangshan City in Hebei Province, Xianyang City in Shaanxi Province, Wuhu City in Anhui Province, Hangzhou City in Zhejiang Province, Qingdao City in Shandong Province, Chuzhou City in Anhui Province, Puyang City in Henan Province, and Jingmen City in Hubei Province.



The Company's existing production capacity is fully utilized and business operations are in good condition. With the rapid development in recent years, market demand has been increasing and market capacity has been expanding. The Company will construct production bases in eastern, northern, northeast, southern and southwest China to further expand its capacity. Moreover, it aims to achieve full market coverage and a national strategic footprint.



The Company has more than 80 internationally advanced production lines so far. The annual design capacity of the production lines includes approximately more than 600 million square meters of waterproof sheet materials, approximately 1.5 million tons of waterproof coatings, approximately 3 million tons of mortar products, approximately more than 4.2 million cubic meters of thermal insulation materials, nearly 500,000 tons of building coatings and approximately 250,000 tons of non-woven fabrics.

List of Invested Projects Announced by Oriental Yuhong

Project Location	Invested Project
Wuhu, Anhui	Project name: Oriental Yuhong Green Building Materials (Wuhu) Industry Demonstration Park Main project details: Green civil building materials such as new energy-saving insulation sealing materials, waterproofing materials and functional coating materials
Huadu, Guangzhou	Project name: Oriental Yuhong Greater Bay Area Green Building Materials Industrial Park and International Green Building Materials Center Project details: Comprehensive layout of the Company's production line of green building materials products
Baoding, Hebei	Project name: Oriental Yuhong Green Building New Materials Industrial Park Project details: DAW waterborne coatings, energy-saving insulation materials, polymer coils, special mortars, etc.
Yangpu, Hainan	Project name: Oriental Yuhong Hainan Yangpu Comprehensive Industrial Park of Green and New Materials  Project details: Construction in two phases, covering modified bituminous waterproof sheet materials, waterproof coatings, polycarboxylic acid high-performance water reducers and polyurethane or other building materials, supporting production and office facilities, etc.
Qidong, Jiangsu	Project name: Oriental Yuhong New Building Material Production Base Project details: Green civil building materials such as bituminous sheet materials, waterproof coatings and special mortars, logistics and warehousing, etc.

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Project Location	Invested Project
Jiangjin, Chongqing	Project name: Green Building Material Production Base of Oriental Yuhong and Headquarters in the Chengdu-Chongqing Economic Zone Project details: R&D and manufacturing of products such as the waterproofing materials for new construction, energy-saving insulation sealing materials, new functional coating materials, special mortars and green civil building materials; economic project of the headquarters in the Chengdu-Chongqing Economic Zone
Changde, Hunan	Project name: Changde TDF Non-Woven Fabric Project Project details: Various industrial nonwovens (non-woven fabrics), asphalt fabrics and related raw materials
Changchun, Jilin	Project name: Green Building Material Production Base of Oriental Yuhong and Regional Headquarters  Project details: R&D and manufacturing of products such as waterproofing materials, energy-saving insulation materials, civil building materials, special mortars, building coatings and powder materials; project of the regional headquarters
Shenyang, Liaoning	Project name: Green Building Material Production Base of Oriental Yuhong and Liaoning Regional Headquarters  Project details: R&D and manufacturing of products such as waterproofing materials, energy-saving insulation materials, civil building materials, special mortars and building coatings; project of the Liaoning regional headquarters
Nanchang, Jiangxi	Project name: Oriental Yuhong Jiangxi Production Base Project details: Construction of waterproofing material production workshops, thermal insulation material production workshops, comprehensive production workshops, supporting storage, corporate complex office and R&D buildings, etc.
Jinan, Shandong	Project name: Oriental Yuhong Shandong Regional Headquarters and Green Building Material Production Base Project details: Shandong regional headquarters; R&D and manufacturing of products such as the waterproofing materials for new construction, energy-saving insulation sealing materials, new functional coating materials, special mortars and green civil building materials
Shaoyang, Hunan	Project name: Oriental Yuhong New Material Production Project Project details: Production of new materials and supporting projects

Project Location	Invested Project
Zhengzhou, Henan	Project name: Oriental Yuhong Green Building New Material Production Base Project details: R&D and manufacturing of products such as waterproofing materials, energy-saving insulation materials, civil building materials, special mortars and building coatings

Oriental Yuhong provided effective system solutions for customers according to their requirements. The specifics of the high-quality professional services provided by Oriental Yuhong for customers in 2020 are as follows:

Area	New Construction and Repair Schemes (Copy) (Including System Solutions)	Technical Support (times)	Bidding Documents and Qualification Examinations (Copy/Time) (Including Aided Bidding)
Northern China	3942	1873	2842
East China	1725	827	1073
South China	2504	2534	1052
Total	8171	5234	4967

## (III) Consumer Rights Protection

In China's building waterproofing market, fake and authentic products are strangely jumbled together. Counterfeiting has become a serious concern. To protect customers' rights and interests, Oriental Yuhong provided customers with two product authenticity inquiry ways: telephone inquiry and online inquiry. It also set up "Brand Rights Protection Department" and announced tip-off telephone line. After getting tip-off information, Oriental Yuhong will make analysis and arrange special persons to make investigation and collect evidences. Then it will help law



enforcement authorities to crack down on fake products, so as to protect customers' lawful rights and interests.

Oriental Yuhong will resolutely pursue criminal liability for cases involving counterfeits that meet the criteria for case filing. It will strive for the maximum criminal liability imposed on the suspects and will not accept any form of compensation or understanding. In 2020, 14 counterfeiting cases were filed with the public security organs. Specifically, 17 persons were criminally detained, three persons were given sentences, and 120,000 square meters of waterproof sheet materials and 1,800 kilograms of waterproof coatings were seized.

All staff participate in the fight against counterfeiting together. All personnel of the Company are required to actively report behavior and incidents that involve counterfeiting, disrupt market order, or damage the Company's brands. In the field of market circulation, infringement cases are mainly reported to the local market supervision bureaus for administrative investigation; if the value of a case is large and the case meets the criteria for criminal case filing, it should be directly reported to the economic investigation department of the public security organ. With the assistance of law enforcement authorities, the origins of the goods will be traced, whether in building material markets or in project sites, in order to reassure consumers that all materials purchased and used under Oriental Yuhong's brands are genuine.

## (IV) Let Industry Operate Under the Sun

As the president unit of the China National Building Waterproof Association (CWA), Oriental Yuhong contributed much to the development of the industry and promoted the standardization of the industry. With low concentration and unhealthy market competition, the domestic construction materials industry features "many small firms in a large industry". There are many manufacturing enterprises, but only a few can provide good services, while the many others are of a small size with outdated technology and production technique. The market is flooded with counterfeit

and shoddy products. And the industry is trapped in excessive lagged output capacity, disorderly competition, and safety and environmental issues. Oriental Yuhong enters the market with strong self-discipline. In line with its best international counterparts, Oriental Yuhong insists on disclosing information on its responsibility performance, maintains quality management, and takes practical actions to safeguard a healthy, just and fair competition environment, so that the industry can operate under the sun.



## **Chapter II Scientific and Technological Innovation**

This chapter covers the responsibilities of the Company to its customers, including the production of high-quality products, the provision of good services, the promotion of scientific and technological innovation, and the protection of basic rights and interests of customers.

In accordance with company conditions and industry conditions, Oriental Yuhong took "making scientific and technological innovation; serving the country by industry development" as corporate guidance. It built up an improved scientific & technological innovation system, and carried out the concept of independent innovation in construction and engineering practices. On the foundation of domestic and overseas advanced innovation results, it led the industry's development tendency, pushed forward industry development and improved its own and the industry's capabilities of sustainable development.

### I. Innovation Mechanism Leads Development

Based on the technological innovation strategy, the Company established a scientific research platform integrating product R&D, production technique, application technology, engineering technology, detection and tests, overseas R&D and strategic reserves. It formed a "Carrier Battle Group" that covers "system design, materials development, construction and technological service", and subsequently undertaken a number of national projects, such as the State "863 Program", State Key New Product, and the National Torch Plan etc.

#### **Scientific Research Platform**

Product R&D	Product R&D Center
Production technique	Production technique and equipment R&D center
Application technology	Application technology R&D center
Engineering technology	Construction engineering technology R&D center

Detection and tests	CNAS- and CMA-certified standardized laboratory	
Overseas R&D	Global excellence research center of waterproof coatings	
Strategic reserves	National Key Laboratory of Special Waterproof Materials Polymer waterproofing material and product R&D platform Polymer material R&D center	

For personnel allocation, Oriental Yuhong has 439 technological R&D personnel, one expert enjoying the special allowance of the State Council and 25 experts honored "Technology Leaders". It has successively introduced 13 post-doctoral personnel (including four in 2020) and has employed five academicians from the Chinese Academy of Engineering and seven international famous scientists. Fifteen guest professors from the United States, Canada, Hong Kong, as well as domestic higher learning institutions and research institutes have conducted research or participated in technology exchanges with Oriental Yuhong and given instructions successively.

The Company has technological cooperation with universities including Sichuan University and Beijing University of Chemical Technology in the form of open projects. To study the industry and education integration model for Oriental Yuhong and higher learning institutions, the Company has established official contacts with 23 colleges and universities in 16 provinces and cities across the country. By the Spring Festival of 2021, the Company had ensured cooperation with 14 institutions of Project 211/Project 985, three key universities and six general universities. It took the lead in signing strategic cooperation agreements with two "Double First-Class" universities, Through Central University Chongqing University. South and "industry-university-research" coordinated development, the universities and the Company cooperated in depth in such fields as talent cultivation, scientific research, and scientific and technological services, closely integrating industry and education to promote mutual benefit, win-win and common development.

The Company encourages chemical experts to participate in national, ministerial, provincial and other external talent cultivation. In 2020, one expert was awarded the 24th Beijing Outstanding Young Engineer, one expert was selected into the Young Elite Scientists Sponsorship Program by the Beijing Association for Science and Technology, and one expert won the title of Special-Allowance Technician of the People's Government of Beijing Municipality.

In terms of mechanism guarantee, in order to reward organizations and individuals that have made contributions to the Company's scientific and technological progress and technological innovation activities, the Company has formulated the *Incentive Measures for Scientific and Technological Achievements*. It launched the 7th Scientific and Technological Achievement Award selection in 2020. A total of 16 scientific and technological achievements were awarded. Moreover, the Company has established the *Incentive Policy for R&D Personnel* and the *Management Policy for Intellectual Property Achievements*, among others, to reward achievements including patents and papers. The implementation of different incentive policies has effectively stimulated the enthusiasm and creativity of R&D personnel and ensured the efficient operation of all R&D work.

Example: On 16 December 2020, the 5th meeting of the 1st Academic Committee of the National Key Laboratory of Special Waterproof Materials of Oriental Yuhong was held in Beijing. At the meeting, a detailed report was made on the overall operation, talent team building, research projects and scientific research results obtained during the preparation period of the past five years, as well as on future work planning. Oriental Yuhong will continue to strongly support the construction of the National Key Laboratory of Special Waterproof Materials, give equal importance to national requirements and corporate development, actively assume social responsibilities, vigorously cultivate scientific research talent, improve



and implement expert opinions, and solve problems in the field of building waterproofing.

#### II. Innovation Platform Gathers Strength

Oriental Yuhong built up internal and external R&D platforms, strengthened cooperation with enterprises and colleges, and carried out multi-layered cooperation of production, academy, and research.

Adhering to the concept of "Technology First, Innovation Foremost", over the past many years, the Company has established cooperative relations with a large batch of scientific research institutions and world-famous chemical engineering enterprises, such as Lehigh University of the United States, Beijing University of Chemical Technology, Institute of Chemistry, Chinese Academy of Sciences, the Dow Chemical Company, BASF etc. The Company has established "Emulsion Polymerization Experiment Center" with Lehigh University of the United States, and has achieved dozens of technological results through joint research and development with Beijing University of Chemical Technology, Qingdao University of Science and Technology, such as high weather-proof pure polyurea elastic coasting, spray type high concentration self-hardening rubber asphalt paint etc.; and has also jointly developed talents with a number of higher learning institutions, such as Beijing University of Chemical Technology, Tianjin University, and Hubei University of Technology etc., by means of scholarship, and promoted sound cooperative relations with higher learning institutions.

In connection with its strategic development, product quality and construction and service requirements, the Company has continually identified corresponding laws and statutes and various rules and regulations, so as to meet the requirements of various parties, and bring resource advantages to the Company for its sustainable development.



# Example 1: Oriental Yuhong and Wacker Chemicals held the seventh "Innovation Day"

On 14 December 2020, the seventh "Innovation Day" event of Oriental Yuhong and Wacker Chemicals was held in Beijing. After a decade of partnership, the two companies have established a stable and win-win cooperation mechanism. This year has been the seventh consecutive year for them to jointly hold the "Innovation Day" event. During the period of the event, their technical teams and R&D teams held in-depth exchanges on the ongoing cooperation projects and cooperative development projects under planning. On top of the technical strengths of the joint lab, the two sides will further enhance strategic cooperation and leverage stronger technological competitive strengths in fields such as building waterproofing and architectural coatings.

# Example 2: Oriental Yuhong and Wanhua Chemical had cooperative R&D exchanges

In order to strengthen the joint R&D of the upstream and downstream, lead the healthy development of the industry through product innovation, and achieve a win-win and mutually complementary innovation cooperation model, on 29 August, the R&D, production and procurement management teams of Oriental Yuhong visited the headquarters of Wanhua Chemical Group Co., Ltd. in Cishan, Yantai.





### III. Innovative Results Demonstrate Strength

Many of the Company's products have passed international certifications. Among them, the **GES-300** solvent-free single-component polyurethane waterproofing coating has passed the German GEV environmental protection inspection and obtained EC1+ certification. High-performance multi-material multi-layer polymer coils for waterproof protection of underground spaces, TPO waterproof sheet materials and a variety of polyurethane products have been exported to the United States, Germany, Singapore and other countries, and have been used in multiple major international projects such as Singapore's MRT, an international airport of Israel and a railway tunnel in Uzbekistan, receiving recognition from users. According to appraisal by the China Building Materials Federation (CBMF), the three technologies and achievements of "Key Technology and Application of High Water-Resistant Polymer Cement Waterproof Coating", "Near-Zero VOC Solvent-Free MDI System Single-Component Polyurethane Waterproofing Coating" and "R&D and Application of Complete Green and Intelligent Technologies and Equipment for Polymer Membrane-Based Self-Adhesive Bituminous Waterproof Sheet Materials" in 2020 have reached the internationally leading level, filling the international gap. Another achievement, "Technology and Application of Modified



Resin Corrosion-Resistant Waterproof Layer System for the Protection of Porcelain-Like Concrete", has reached the internationally advanced level.

Major innovation projects: The Enterprise Technology Center of Oriental Yuhong has undertaken three National Torch Plan projects, two national key new product technologies, one National 863 Plan project and 150 independently innovative products. 36 core technologies have passed the appraisal of scientific and technological achievements. It has also edited or co-edited 41 national/industry/local standards as well as 44 corporate standards, atlases and construction methods.

Patents: As at 31 December 2020, the Company had a total of 961 valid patents (294 inventions, 592 utility models and 75 designs), including three foreign valid patents (one from the United States, one from Australia and one from Singapore).

#### IV. Innovation Application Examples

#### (I) Application Technology Research and Promotion

The Application Technology Center of Oriental Yuhong is located in Shunyi, Beijing, covering an area of 1,000 square meters. It consists of a comprehensive R&D department for application technology and basic topics, an R&D and promotion department for part systems, a technical support service department and a comprehensive management department. Oriental Yuhong's application technology research mainly includes four directions, namely research on application technology of new products (identification of application risks, determination of application scenarios and refinement of application advantages), research on application technology of existing products (solution of practical application problems, research on product durability, improvement of construction methods, as well as R&D and upgrading of tools and machines), research on application technology of part systems (maintenance of system durability and reliability, as well as R&D and promotion of part systems in different fields) and research on overall application technology of the



industry (mastery of the overall situation of the industry and continuous improvement of product application experience).

The Company carried out targeted technological innovation based on the performance of different products. The following are the main testing projects that the Company was running or had completed in terms of main products and construction systems in 2020:

#### **Example 1: Research on the compatibility of different waterproofing materials**

Project profile: At present, various waterproofing materials are often compositely used in the industry, such as composite coil coatings, composite polymer bituminous sheet materials, and composites of different coatings. Although there are clear requirements for the compatibility of waterproofing materials, testing methods and evaluation bases are not in place, making verification and regulation impossible. In order to ensure the reliability of waterproofing systems, the Company has invested a lot of manpower and material resources to classify various types of waterproofing materials, test and reproduce common composite practices on the market, conduct research from the two aspects of material quality and construction method, and accumulate test data.

Test progress: The sample preparation has been completed, part of the test content has been completed, and phased research results have been obtained.





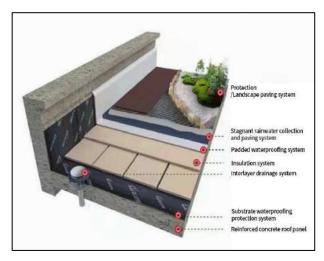
Research on the Compatibility of Different Waterproofing Materials

Example 2: R&D and promotion of part systems - EDEE industrial prefabricated roofing system



Project profile: EDEE industrial prefabricated roofing system contains a complete set of green prefabricated roofing system above the floor of the roof structure. Waterproofing materials, heat preservation materials and pressure paving surfaces are involved. Compared with traditional roofing systems, the EDEE roofing system has advantages such as resistance to water channeling, easy maintenance and renovation, short construction period and light overall load. With three patents, this roofing system is a novel green prefabricated roofing system.

Test progress: The EDEE roofing system has passed the level-13 wind uplift resistance test, and a test report has been obtained. Now the system is under the roof insulation performance test in extreme cold areas. In addition to the above tests, the EDEE roofing system has undergone application tests such as the anti-channeling test, zero-slope drainage, roof maintenance efficiency and other performance tests. The EDEE roofing system has been successfully applied in many projects, among which the Xiongan Design Center, Hulunbuir Beijiang Pearl and Harbin Duiqing Food Industrial Park are example projects. Impressive application effects have been obtained.





EDEE industrial prefabricated roofing system

#### Example 3: Research on the aging mechanism and durability of waterproofing materials

Project profile: Through the natural exposure aging test of waterproofing materials, the pattern of the mechanical properties of waterproofing materials and the attenuation of waterproof performance over time was obtained. At the same time, an accelerated aging test of this type of waterproofing material was conducted. With two research methods, the durability of waterproofing materials was evaluated, and the



service life of the sample waterproofing material was estimated. Special indicators of the durability of roof waterproofing materials were summarized and promoted. Meanwhile, with durability evaluation, industry-leading test data were provided for the durability tests of new and old products, so as to achieve product differentiation. Through the research of this project, the pattern of the attenuation of roof waterproofing materials with service time can be obtained. This pattern is the fundamental basis for the process of material deterioration. These basic data will support the durability research of waterproofing materials, and facilitate the mutual confirmation of the accelerated aging test and the fatigue loading test of waterproofing materials, from which the reliability and service life of the material can be inferred.

Test progress: At present, as the construction of exposure sites as well as the release of exposure samples in Beijing, Jinzhou, Xianyang and Huizhou have been completed, the natural aging research of major products of Oriental Yuhong has been carried out. Meanwhile, the researches on artificially accelerated aging of some types of waterproofing materials have been conducted, from which phased test results have been obtained.





Research on the aging mechanism and durability of waterproofing materials

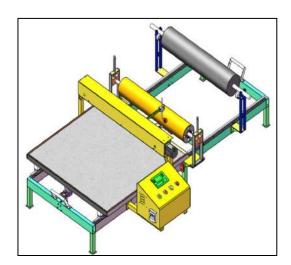
Example 4: Constant hot melt testing machine for SBS modified bituminous sheet material

Project profile: SBS/APP polymer modified bituminous waterproof sheet material is the most widely used waterproofing sheet material in China. Previously,



we evaluated its application performance by manually heating its surface to melt, then observing its appearance and evaluating it by the bitumen gloss, surface flatness, oiliness and other indicators. As a matter of fact, such tests were very susceptible to the stability of manual operation, such as the baking speed, baking angle and flame scale. In order to ensure rigorous and accurate results of the application performance evaluation, this equipment was specially developed to ensure completely consistent baking time, baking speed and flame scale. Since variables were eliminated during the tests, more accurate results of the construction and application performance of different types of sheet materials could be obtained more rapidly.

Test progress: This equipment has been developed, manufactured and applied to the evaluation of the application performance of different hot melt sheet materials. Comparatively ideal expected results have been obtained.





Constant hot melt testing machine for SBS modified bituminous sheet material

**Example 5: Water bath heating tank (polyurethane heating)** 

Project profile: Since the viscosity of polyurethane intensifies in winter, the efficiency of manual rolling/scraping is low, with high construction labor intensity, construction difficulty and uncertain coating thickness. The cost is higher due to a waste of materials. The water bath pre-heating equipment is used for construction with polyurethane in winter. The heating temperature can be set according to the site



and environmental requirements, and constant temperature control can be realized after the equipment reaches the preset temperature. With this equipment, we have effectively resolved the difficulty in manual roll coating of polyurethane with high viscosity during waterproofing construction in winter. Polyurethane is basically a fluid liquid when it is heated to above 40°C, which is convenient for manual roll/scratch coating.

Test progress: The 220v water bath heating tank with an electric heating tube has been launched to the market and mass-produced. The Company is designing the electromagnetic heating water bath structure, and prepares to conduct performance tests according to the single-phase 220v and three-phase 380v heating schemes. Technical solutions are reserved.





Water bath heating tank

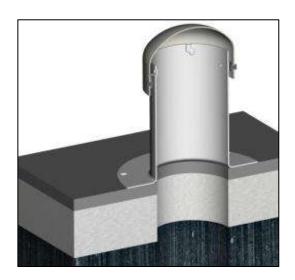
#### **Example 6: Roof exhaust hood**

Project profile: The roof exhaust hood is classified under the technical area of roof moisture resistance and exhaust. The roof is comprised of a reinforced concrete structure layer, an insulation layer, a leveling layer, a waterproof layer, and a protective layer which are sequentially arranged. Particularly, the vertical and horizontal exhaust channels are arranged in the insulation layer, and the exhaust channels are connected with the upper roof exhaust hood extending out of the roof.



The exterior surface of the extended roof exhaust hood is seamlessly covered with a waterproof layer and an additional waterproof layer. With the above-mentioned roof exhaust system, the vertical and horizontal exhaust channels are arranged in the insulation layer, and the exhaust channels are connected with the upper roof exhaust hood extending out of the roof. As a result, the air in the insulation layer can be timely discharged, which effectively prevents the roof from cracking and destruction due to the pressure of freezing water and air, and prolongs the service life of the roof.

Test progress: The structural design and performance test of the roof exhaust hoods with a diameter of 120mm and a height of 250mm have been completed, and related mass production has been conducted. The roof exhaust hoods with a diameter of 60mm and a height of 220mm, a diameter of 70mm and a height of 550mm, and a diameter of 120mm and a height of 550mm can be produced based on orders.





Roof exhaust hood

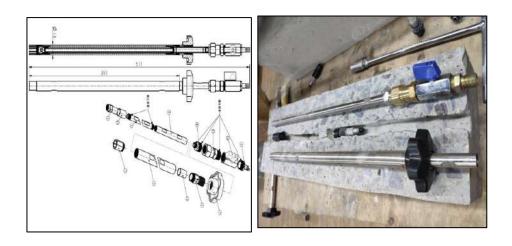
#### **Example 7: Deep grouting kit**

Project profile: Deep grouting is a set of deep grouting maintenance system and construction methods to tackle leakage from basement side walls and floors, which enables the grouting on the leaky water surface of the concrete structure layer of a building to solve the leakage problem. Deep hole drilling is conducted with a special



lengthened diamond water grinding bit. Then the original large-flow, high-pressure and quick-connect grouting needle is directly inserted into the deepest part of the concrete structure. With the help of the customized ultra-high-pressure and large-flow grouting machine, the sealing material is directly injected into the leaky water surface. In addition, another grouting head can be placed in the middle section of the deep hole for second or more grouting according to the leakage situation.

Test progress: The structural design and performance test of two deep grouting heads (all-metal and metal-plastic) with a diameter of 18mm, and a special grouting device for deep grouting heads with lengths of 150mm, 270mm and 500mm have been completed, and related mass production has been conducted.



Deep grouting kit

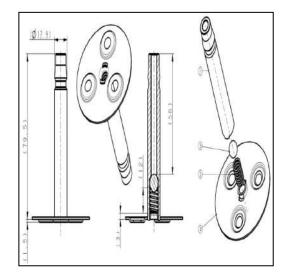
**Example 8: Interlayer grouting kit** 

Project profile: Interlayer grouting is a set of maintenance system and construction methods by remaking the waterproof layer to tackle leakage from basement roofs and roof slabs, which enables the grouting on the leaky water surface of the concrete structure layer of a building to remake the waterproof layer and solve the leakage problem. The original large-flow and quick-connect interlayer grouting head is directly inserted into the part between the concrete structure layer and the



waterproof layer. With the help of the customized ultra-high-pressure and large-flow grouting machine, the sealing material is directly injected into the leaky water surface.

Test progress: The structure design and performance test of the interlayer grouting head with a diameter of 13mm have been completed, and related mass production has been conducted.





Interlayer grouting kit

#### (II) Innovative Marketing System

In order to enhance its sustainable competitiveness, Oriental Yuhong has continuously surpassed itself in the "Whole-Supply-Chain Management and Collaboration System for Unique Product Identity" by linking and integrating technologies, products, management and services at all levels and deriving support from the system of informationization and industrialization integration. The "Whole-Supply-Chain Management and Collaboration System for Unique Product Identity" of Oriental Yuhong is a platform built for quality. It took ten years to develop this system. With QR codes as the information transmission medium, the Internet was made use of to connect upstream and downstream supply chains externally and connect information silos and integrate resources internally.



As a global provider of systematic building material service, Oriental Yuhong has developed partnership with many dealers and partners which can rapidly grasp the latest sales policies and promotional schemes through the DMS system, make timely business adjustments, replenish goods and place orders. Customer orders from all over China were sent to the SAP system through the DMS. The order information was centralized to the Beijing production and operation center, at which logistics specialists were designated to allocate the orders to the optimal production factory according to the distribution radius, production capacity, arrival time, inventory and other factors. The optimal allocation of resources was thereby achieved.

Oriental Yuhong made full use of the advantages of the Internet+ to achieve synergy with suppliers and manage the demand and service process. The release of purchase demands, bids and quotations, contract execution, order confirmation, shipment notification, quality control and complaints, invoicing and collection could be conducted in the SRM system. The well-established reputation of Oriental Yuhong is earned with the superior quality. With intensive raw material tests, mid-control tests and finished product tests, the Company ensured high quality, high standards and strict requirements. After inspectors of the quality supervision center went through the standard testing actions, the inspection data would be automatically transmitted to the cloud center. In the LIMS quality inspection system, the quality data from R&D, production and inspection were compared to promote the improvement of product quality.

#### (III) Innovative Management Model

Oriental Yuhong accepts all kinds of new methods and new patterns that dare to break the routines, committed to providing customers with the best quality products and services. Oriental Yuhong has earnestly implemented the principle that integrates "production process automation, commerce operation electronization, networked mode of management, and intelligent decision-making", continually attempted



informationalized in-depth application based on actual situation, and directed production through informatization means, which has provided not only new thoughts to science and technology innovation and management, but also powerful guarantee in improving products research and development and energy-saving and security etc.

Example 1 The Company gave priority to the development of a digital marketing platform dedicated to customer service in terms of information technology development, and integrated the customer simulation experience, CRM customer relationship management system, dealer business management system, mobile applications, WeChat platform and other systems to achieve zero-distance communication between enterprises and customers through this platform. By doing so, the degree and scope of interaction between enterprises, markets and users has been greatly expanded. Through the development of information systems and the mutual integration between systems, the internal management, and the office and decision-making efficiency of each department has been improved. More convenient services were provided to customers, which won the recognition of customers and facilitated the expansion of market shares. The Company was recognized by the Ministry of Industry and Information Technology as a pilot institution for the "integration of informationization and industrialization" and became one of the first enterprises that have passed the evaluation of "integration of informationization and industrialization".

**Example 2** Oriental Yuhong put forward the new operation and management idea of "platform + maker". On the one hand, it emphasized the development of corporate platforms, covering the efficient building of public security functions such as brands, R&D, production, logistics, warehousing, markets, HR and finance. On the other hand, front-line team members (makers and partners) were attracted and cultivated, and became those who are "brave to fight and good at fighting". It was not only a change of the management style, but more importantly, a change of the talent concept and an effective model which suits the development of modern market economy and where individuals and organizations could be united for a long time, grow together, and share responsibilities and value.



## **Chapter III Resources and Environment**

The Company's responsibilities and contributions in terms of energy conservation and emission reduction, climate change and environmental protection mentioned in this Chapter mainly cover green management, green production and green operations.

To leave a green environment to our descendants, Oriental Yuhong tried its best to reduce environmental influence caused by its operation, production, and construction. The Company proactively developed itself into an economical and eco-friendly enterprise. With energy-saving and emission-cutting concept, as well as the technology and management system, the Company continuously increased energy utility rate and efficiency, made circular use of resources and reduced pollutant emission. It emphasized the environment factor, actively responded to China's green and low-carbon development, developed green and low-carbon operational modes to reduce carbon emission, and facilitated the actualization of goals related to climate actions such as "peak carbon dioxide emissions by 2030 and carbon neutrality by 2060" through actual efforts.

#### I. Green Management

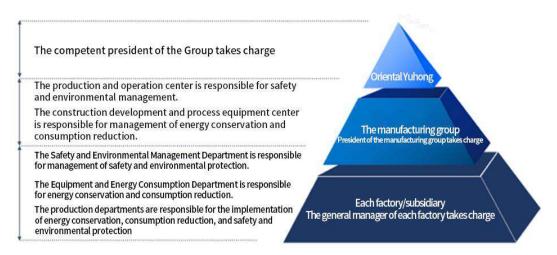
#### (I) Structure of Environmental Management

Oriental Yuhong has established and improved the environmental management system, carried out publicity and education activities about environmental protection, promoted environmental responsibilities related to the supply chain, continuously regarded "green production and low-carbon environmental protection" as the management direction, and advanced routine, systematic and standardized environmental management. By doing so, we further quantified the environmental management performance and specifically evaluated the environmental impact.

The Company has established a standardized environmental protection system which comprises the Group, centers, and factories/subsidiaries, and conducted management based on the principle of local area management and three-level management. Institutions at different tiers have adopted the system where chief executives take charge. The level-1 management departments are managed by the Group, with the competent president taking charge. The president of the manufacturing group is responsible for the level-2 management departments. The production and operation center is responsible for safety and environmental management, and the construction development and process equipment center is



responsible for management of energy conservation and consumption reduction. The general manager of each factory/branch/subsidiary is responsible for the level-3 management departments. The Safety and Environmental Management Department is responsible for management of safety and environmental protection. The Equipment and Energy Consumption Department is responsible for energy conservation and consumption reduction. The production departments are responsible for the implementation of energy conservation, consumption reduction and safety and environmental protection.



The Group has developed a system of environmental management policies and formulated corresponding environmental management policies for planning, execution, inspection and improvement. In-depth exploration of green management models was conducted. The Group improved the organization and management system of energy conservation, effectively consolidated the management foundation of energy conservation and emission reduction, and adhered to the green, environmental and low-carbon concept throughout the whole process of R&D, production and application.

#### Establish and improve the environmental management system

Oriental Yuhong has established and improved the GB / T 24001-2016 environmental management system, and developed relevant plans and other environmental management policies for implementation, inspection and improvement. We carried out publicity and education activities about environmental protection, promoted environmental responsibilities related to the supply chain, continuously regarded "green production and low-carbon environmental protection" as the management direction, and advanced routine, systematic and standardized environmental management. By doing so, we further quantified the environmental management performance and specifically evaluated the environmental impact. The



Company continuously increased its investment in environmental protection and strengthened review to ensure that 100% environmental protection acceptance for new renovation and expansion projects of all factories and 100% standardized emissions of facilities for environmental pollution control. In-depth exploration of green management models was conducted. The Group improved the organization and management system of energy conservation, effectively consolidated the management foundation of energy conservation and emission reduction, and adhered to the green, environmental and low-carbon concept throughout the whole process of R&D, production and application.

So far, more than ten production and logistics bases of Oriental Yuhong, including Shanghai, Yueyang, Jinzhou, Xuzhou, Huizhou, Kunming, Tangshan, Xianyang, Wuhu, Jiande, Laixi, Puyang, Deyang, Jingmen and DAW Jiande, have been certified by the quality management system, environmental management system and occupational health and safety management system. Nine production and logistics bases have been approved by the energy management system. Eight engineering companies, including Beijing Oriental Yuhong Waterproof Technology Co., Ltd., Shanghai Yuhong New Material Technology Co., Ltd. and Guangdong Oriental Yuhong Waterproof Engineering Co., Ltd., have obtained the certification of the three ISO systems. The Group has obtained 88 certificates of China Environmental Labeling (ten rings certification). Specifically, the production and R&D logistics bases in Tangshan, Jinzhou and Huizhou have been successively selected for the green manufacturing demonstration list of the Ministry of Industry and Information Technology.

In 2020, by virtue of continuous improvement of environmental protection facilities and the environmental management level, active investment in environmental protection facilities and conscientious fulfillment of social responsibilities for environmental protection, the production and logistics bases of Oriental Yuhong in Xianyang, Puyang and Tangshan passed the A-level environmental performance evaluation in the national key environmental areas. Oriental Yuhong thus became one of the first enterprises in the waterproofing industry to pass the A-level evaluation.

(II) Support for Green and Low-carbon Development Empower green buildings and promote sustainable development

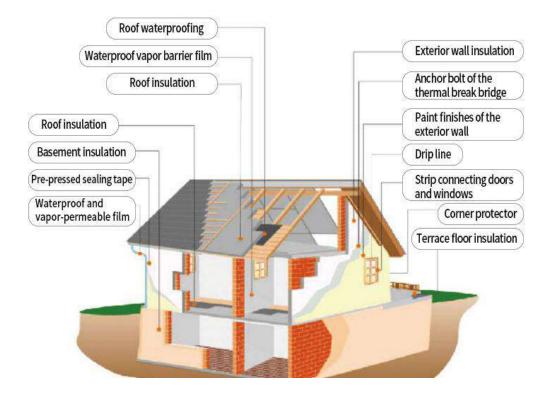


In response to the national strategy of "greening" buildings, and to better meet consumers' demand for environmentally friendly houses, Oriental Yuhong has been conducting R&D in green building materials, and actively fulfilling its corporate social responsibilities. It called on the industry to build a green industry chain, and provided durable, high-quality and green protection throughout the entire life cycle to promote sustainable development of the whole industry by focusing on energy conservation and efficiency enhancement.

The Ministry of Housing and Urban-Rural Development issued the "13th Five-Year Plan" for the Development of Construction Energy Conservation and Green Building. The document required that by 2020, more than 10 million square meters of model building projects with low energy consumption and nearly zero energy consumption should be conducted. Moreover, the Ministry encouraged the development of zero-energy buildings and construction pilots of positive-energy buildings. In September 2019, the government issued the first guiding standards, Technical Standards for Nearly Zero Energy Buildings, to provide a clear definition of nearly zero energy buildings through national standards. As at March 2021, 27 provinces, autonomous regions and municipalities directly under the Central Government, including Beijing City, Hebei Province, Henan Province, Shandong Province, Tianjin City, Shanghai City, Anhui Province, Jiangsu Province, Zhejiang Province and Chongqing City, have issued policies related to ultra-low/nearly zero energy buildings.

Nearly zero energy buildings refer to buildings that adapt to climate characteristics and natural conditions, adopt efficient fresh air and heat recovery technology, minimize the heating and cooling needs of the building, and make full use of renewable energy to provide a healthy and comfortable indoor environment with less energy consumption and meet the basic requirements of green buildings through an envelope structure with better thermal insulation and airtightness.





Woniushan Building Energy Conservation affiliated to Oriental Yuhong has created the "HEEC near-zero energy building service system", China's first five-in-one near-zero energy EPC solution that integrates consulting, design, purchase, construction, and operation and maintenance. It has established long-term, stable and in-depth partnership with top institutions in near-zero energy consumption at home and abroad, such as the German Energy Agency (DENA), the German's Passive House Institute (PHI), the China Academy of Building Research, the Beijing Energy Conservation and Environmental Protection Center, and the Hebei Academy of Building Research. The Company has developed the first full-life-cycle software platform for zero-energy buildings in China - "HEEC Intelligent Platform for Nearly Zero Energy Buildings", which integrates the design module, construction simulation module, consultation and verification module, construction management module, product traceability module, IoT energy consumption monitoring module, and operation and maintenance warning module. The green concepts of paperless design, waste-free construction and lossless operation and maintenance were thoroughly practiced.





Example 1 Building E of the headquarters of Oriental Yuhong located in the Beijing Economic-Technological Development Area, with a building area of 12,173 square meters. It adopts 270mm thin stone wool board for the exterior insulation system of the exterior wall, aluminum curtain wall for the exterior wall, 270mm extruded polystyrene board for the roof insulation system, 2cm extruded polystyrene insulation board for the indoor floor, and the coil waterproof system for the roof. The efficient fresh air and heat recovery system enables heat exchange between fresh air and exhaust air through the heat recovery device to recover the energy in the exhaust air. It demonstrates remarkable effect of energy conservation when ensuring comfort in the building. Compared with a building with 65% energy conservation performance, the project can help us save 120 tons of standard coal per year, and reduce 345 tons of carbon dioxide per year and RMB750,000 of heating and cooling cost per year.

Example 2 The office building of the Baoding Xushui North R&D Center, is located in Xushui District, Baoding City, with a building area of 1,800 square meters. It was fully designed and built with the HEEC system. Moreover, a new-generation external insulation system was adopted. With the IoT energy consumption monitoring system, the project can be continuously managed, operated and maintained after it is put into operation. Besides, better operation strategies can be developed. Compared with a building with 65% energy conservation performance, the project can help us save 19 tons of standard coal and reduce 51 tons of carbon dioxide per year.



## Energy conservation and emission reduction through nearly zero energy projects

So far, the Company has applied its thermal insulation materials to an accumulative area of 1,342,100 square meters through its nearly zero energy projects. By the domestic standard of a building with 65% energy conservation performance, zero energy projects can save 46,973,500 degrees of electricity and 14,092 tons of standard coal and reduce carbon dioxide emissions by 38,048 tons per year. By the domestic standard of a building with 75% energy conservation performance, zero energy projects can save 40,263,100 degrees of electricity and 12,078 tons of standard coal and reduce carbon dioxide emissions by 32,613 tons per year.

Statistics of Energy Conservation and Emission Reduction of Major Projects

Note \* (65): By the domestic standard of a building with 65% energy conservation performance/\*

(75): By the domestic standard of a building with 75% energy conservation performance

Project	Construction	Electricity Saved (kW·h)		onstruction (kW·h) Carbon Saved (kg)		(Kg)	
Name	Area (m²)	(65)	(75)	(65)	(75)	(65)	(75)
Rizhao Shan Shui Long Ting	5,407	189,245	162,210	56,773.5	48,663	153,288.4 5	131,390.1
Residential Lab Building in the Nantong Sanjian Industrial Park Featuring Superlow Energy Consumption and Green Buildings	45,333.44	158,6670. 4	1,360,003 .2	476,001.1 2	408,000.9 6	1,285,203 .024	1,101,602 .592
Beijing (Caofeidian) Modern Industry Development Pilot Area	190,000	6,650,000	5,700,000	1,995,000	1,710,000	5,386,500	4,617,000
Shandong Urban Construction Vocational College	21,000	735,000	630,000	220,500	189,000	595,350	510,300
Zhejiang College of Construction	460	16,100	13,800	4,830	4,140	13,041	11,178



Statistics of Energy Conservation and Emission Reduction of Major Projects

Note \* (65): By the domestic standard of a building with 65% energy conservation performance/\*

(75): By the domestic standard of a building with 75% energy conservation performance

Project	ject Construction		Electricity Saved (kW·h)		Carbon Saved (kg)		Emission Reduced (kg)	
Name	Area (m²)	(65)	(75)	(65)	(75)	(65)	(75)	
Passive and Superlow Energy Consumption Building at 74 Kongjiali, Hangzhou	1,079	37,765	32,370	11,329.5	9,711	30,589.65	26,219.7	
Yueshang Nanhu Passive Villa	600	21,000	18,000	6,300	5,400	17,010	14,580	
Zhangjiakou Landun Zijinwan	8,477.5	296,712.5	254,325	89,013.75	76,297.5	240,337.1 25	206,003.2	
Beiqijia Town Nine-year School, Beijing	29,013	1,015,455	870,390	304,636.5	261,117	822,518.5 5	705,015.9	
Sample Passive House of Tangshan Jidong Development Integrated Housing Co., Ltd.	850	29,750	25,500	8,925	7,650	24,097.5	20,655	
Tea House of the Passive House at the Xiongan Vanke Green R&D Center	74	2,590	2,220	777	666	2,097.9	1,798.2	
Sample Passive House of Tangshan Jidong Development Yandong Construction Co., Ltd.	311	10,885	9,330	3,265.5	2,799	8,816.85	7,557.3	
Building E of the Yizhuang Headquarters of Oriental Yuhong	12,173	426,055	365,190	127,816.5	109,557	345,104.5 5	295,803.9	



Statistics of Energy Conservation and Emission Reduction of Major Projects
Note \* (65): By the domestic standard of a building with 65% energy conservation performance/\*
(75): By the domestic standard of a building with 75% energy conservation performance

	Construction Electricity Saved				Emission Reduced		
Project Name	Construction Area (M²)	(kW·h)		Carbon Saved (kg)		(kg)	
	72.0 ( )	(65)	(75)	(65)	(75)	(65)	(75)
Xingyang Jianhai Contemporar y Park Yue MOMA	182,351	6,382,285	5,470,530	1,914,685 .5	1,641,159	5,169,650 .85	4,431,129
Dorm Building of the Ruicheng Technology Research Center in Datong City	11,737.19	410,801.6 5	352,115.7	123,240.4 95	105,634.7 1	332,749.3 365	285,213.7 17
B9 and B10 of Greenland Yulan Garden, Jinan	105,964	3,708,740	3,178,920	1,112,622	953,676	3,004,079 .4	2,574,925 .2
Sample Passive House of Wan Jing Xin Cheng in Renqiu City	438	15,330	13,140	4,599	3,942	12,417.3	10,643.4
28# Shoukai Hua Xi Long Yuan in Taiyuan City	10,500	367,500	315,000	110,250	94,500	297,675	255,150
Lihang Guan Tang Fu in Shijiazhuang	200,000	7,000,000	6,000,000	2,100,000	1,800,000	5,670,000	4,860,000
Lihang Tang Yue Fu in Shijiazhuang	62,345.84	2,182,104 .4	1,870,375 .2	654,631.3 2	561,112.5 6	1,767,504 .564	1,515,003 .912
Shoutang·Ch uang Ye Jia	286,300	10,020,50 0	8,589,000	3,006,150	2,576,700	8,116,605	6,957,090
Zhengzhou Wufang Science Museum	3,822	133,770	114,660	40,131	34,398	108,353.7	92,874.6
Xinxiang Yunsong·Jin Hua Fu Yu	92,362	3,232,670	2,770,860	969,801	831,258	2,618,462 .7	2,244,396 .6
Sino-German Ecopark Pass ive House	66,000	2,310,000	1,980,000	693,000	594,000	1,871,100	1,603,800
Guli·East China Nearly Zero Energy	800	28,000	24,000	8,400	7,200	22,680	19,440



Statistics of Energy Conservation and Emission Reduction of Major Projects

Note \* (65): By the domestic standard of a building with 65% energy conservation performance/\*

(75): By the domestic standard of a building with 75% energy conservation performance

Project	Y (K VV III)			Carbon S	saved (kg)	Emission Reduced (kg)	
Name	Area (m²)	(65)	(75)	(65)	(75)	(65)	(75)
Exhibition and Experience Center							
Project in Xushui, Baoding	1,800	63,000	54,000	18,900	16,200	51,030	43,740
Yangzhou Vanke Temporary Command Center & Rowing Center	2,000	70,000	60,000	21,000	18,000	56,700	48,600
Harbin Vanke Passive Business Box	904	31,640	27,120	9,492	8,136	25,628.4	21,967.2
Total	1,342,101.97	46,973,56 8.95	40,263,05 9.1	14,092,07 0.69	1,2078,91 7.73	38,048,59 0.85	32,613,07 7.87

Effective conservation of consumables through prefabricated construction

Oriental Yuhong, as a valuable enterprise in the chain the industrial chain, has proposed the EDEE roof system, the prefabricated construction envelope structure sealing and waterproofing system, and the FD dry underfloor heating system as well as solutions like prefabricated coatings and prefabricated and integrated insulation and decoration of inner and outer walls, satisfied the requirements of prefabricated construction, and protected building safety with innovative services.

Specifically, the Company has developed the EDEE green prefabricated roof system by integrating functions, such as waterproof, insulation, wind resistance, protection, and landscape (optional), which features green eco-protection, reduced leakage probability, and prolonged service life of the roof system. All the materials and components used in the system are produced in the factory and assembled on-site. Therefore, consumables, resources, and time can be saved to the maximum extent. The construction period can be shortened by 30%-45%. Moreover, the system is economic, effective, and light. It ensures the maximum service life of each material and component. The designed service life is up to three decades. In addition, 85% of the system can be recycled at the end of the service life.

Oriental Yuhong has kept expanding its industrial value chain, while focusing on its main businesses. It has exerted efforts for building coatings and energy conservation and heat preservation, connected multiple dimensions of the industrial chain, and put forward diversified solutions to usher in the prefabricated construction era. Prefabricated construction will be a long-term trend in the industry. The prefabrication rate will hopefully increase, as technology turns more and more mature and systems, more perfect. Prefabricated construction is safe, eco-friendly, green, and energy-saving, so it is easy to maintain and update. Meanwhile, both resource consumption and pollutant emissions are reduced, making it a preferred choice for green buildings. Currently, Oriental Yuhong has applied prefabricated construction to the Harbin Duiqing Food Industrial Park, the Xiongan Design Center, and the Rong Fu Garden, Inner Mongolia.

**Example 1** DAW under Oriental Yuhong has proposed five solutions regarding inner and outer prefabricated walls, namely, the elastic anti-crack solution, the fungus-resistant and easy-to-clean solution, the solution with pollutant resistance and high weatherability, the organic fireproof solution, and the eco-friendly and energy-saving solution, to address issues of coatings for prefabricated construction in a multi-dimensional and all-round manner.

**Example 2** Fudatec is committed to the development and production of insulation materials and prefabricated interior decoration products and systems. It centers on FD dry underfloor heating system, explores the BIM application. Furthermore, it has deeply probed into intelligent tools and applications, by connecting systems and software and utilizing energy saving calculation, heat engineering calculation, VR visualization, and construction simulation, so as to provide convenient services to prefabricated interior decoration and information-based building.

#### (III) R&D and Application of Environmental Protection Technology

Oriental Yuhong has persisted with the original aspiration and mission of "building a durable and safe environment for human beings and the society" for a long time to lead sustainable development in the industry. The Company has attached great importance to quality and eco-protection and adhered to the concept of "green design, green production, green construction, and green building" for its product production and use. In the meantime, it has carried out extensive and deep cooperation with excellent suppliers at home and abroad to jointly drive the R&D and production of high-performance, green, and eco-friendly products.

**Design of Carbon Reduction/Negative Carbon Emissions** 



The green roof, as an essential part of green urban infrastructure construction, has been widely applied in many cities in China. The green roof is a greening method where plants are planted in the soil paved on the roof or containers or modules on the roof. Hence, building roofs and tops of substructures can be covered with plants. Generally, a green roof consists of the roof structure layer, the leveling layer, the heat insulation layer, the slope layer, the general waterproofing layer, the root penetration resistance waterproof layer, the drainage (storage) layer, the soil layer, and the plant layer. The current product series of Oriental Yuhong cover the heat insulation layer, the general waterproofing layer, the root penetration resistance waterproof layer, and the drainage (storage) layer.

The Company has introduced multiple green roof waterproof design plans, after years of innovative R&D and accumulation of experience. Especially, ARC701, ARC711, and bituminous coating combined construction technology have been applied to form the root penetration resistance waterproof layer of the roof and the top of an underground parking lot. Plants can be planted for beautification. Besides, carbon sequestration and oxygen release are prominent. The output of ARC701 and ARC711 amounted to 64,615,000 square meters in 2020.

The waterproofing system of a green roof is composed of two systems, that is, the "non-curing composite root penetration resistance sheet materials" system and the "polymer composite root penetration resistance" system. The former system allows the root penetration resistance waterproof layer and the roof structure layer to fully stick to each other to avoid water leakage. Meanwhile, with non-curing composite root penetration resistance sheet materials, the workload of hot melting can be reduced, which not only shortens the construction period, but also raises the waterproofing performance. For the latter system, synthetic polymer sheet materials, thermoplastic polyolefin (TPO) waterproof sheet materials, or high-density polyethylene (HDPE) waterproof sheet materials are mainly used to build the root penetration resistance layer. Synthetic polymer sheet materials are characterized by better endurance, chemical stability, and simple construction without fire. Hence, carbon emissions during construction can be significantly reduced.

**Example 1** The cold sticking and combination technology for special reflective thermal insulation sheet materials and bituminous coatings for the green roof is updated from the traditional 4+3 double waterproofing design to the 4+2 sheet material and coating combination waterproofing design. In addition, the high-performance bituminous coating cold sticking construction plan replaces the complete melting combination system. Fuel



consumption can be reduced by 75%, while carbon dioxide emissions, over 75%. In the meantime, the waterproofing system becomes more reliable and durable. In other words, the service life is prolonged.

**Example 2** Oriental Yuhong has started to develop passive waterproofing and energy-saving products since 2015. Its passive waterproofing and energy-saving products were certified by the "Kangjv Certification Body" in July 2017 and included in the Catalog of Passive Houses in November 2017. As at 2020, more than 300,000 square meters of special polymer modified bituminous waterproof sheet material had been applied to nearly zero energy buildings. The Company will continue to push forward energy saving technology for buildings and meet the demand for nearly zero energy buildings in China.

**Example 3** The special non-curing rubber bituminous waterproofing coatings and systems are commensurate with the construction trend and policies related to leakage, energy conservation and emission reduction, and the low-carbon economy. The core product, special non-curing coatings, featuring internationally advanced special modified bituminous technology, can be used together with bituminous sheet materials through the hot adhesion method. The special non-curing melting temperature has decreased by 50 °C. At least 40,000 tons of carbons are reduced each year.

Some Application Projects of Green Roof and Passive House in 2020

Project Name	Applied Materials
Underground waterproofing project in 1#-4# residential buildings and in underground garage zone A, R2 Class 2 residential land (38 items including residential buildings), Plot 01-0128A, Caiyu Township, Daxing District	SBS hot melt sheet material, ARC-711 sheet material for resistance to root penetration and SPU-301 coating
Underground waterproofing project in 8#-12# residential buildings, 14#-16# residential buildings, 20#-24# residential buildings, 26# residential building, underground garage zone C, R2 Class 2 residential land (38 items including residential buildings), Plot 01-0128A, Caiyu Township, Daxing District	SBS hot melt sheet material, ARC-711 sheet material for resistance to root penetration and SPU-301 coating
Engineering in the project of resettlement houses and supporting facilities in noise area of Beijing Daxing International Airport (Yufa Cluster B) (No. 5 Construction Section)	SBS hot melt sheet material, ARC-701 sheet material for resistance to root penetration and PCC-501 coating
Procurement of waterproof materials by the waterproofing project department of North China Company (project of Science and Technology Exhibition Center in High-tech	Non-curing material, PCC501 and JSA; SBS hot melt sheet material and ARC-701 sheet material for resistance

Project Name	Applied Materials
Development Zone)	to root penetration
Procurement of waterproof materials and geotechnical materials for Phase II project of No. 4 rail transit in Chongqing Municipality  Professional waterproofing subcontracting engineering in the project of Plot C under the Phase I project of	PMH3080 and waterproof sheet material of resistance to root penetration SBS hot melt sheet material and ARC-701 sheet material for resistance
Project of targeted resettlement houses in Matouzhuang Village, Houshayu Town, Shunyi District (15 items including 1# residential buildings (resettlement houses))	to root penetration SBS hot melt sheet material, SPU-301 coating, JSA-101 coating and ARC-701 sheet material for resistance to root penetration
Haiyue Mingdi Project	HDPE coil, BH2, non-curing material, SBS hot melt coil, ARC-701 coil for resistance to root penetration, and cementitious capillary crystalline waterproofing coating
Sales of 30 items including 04-1# rental housing of collectively-owned land (waterproof materials)	Non-curing material and SAM930 self-adhesive sheet material SBS hot melt sheet material and ARC-701 sheet material for resistance to root penetration SPU301
Underground waterproofing subcontracting engineering in the project of resettlement houses and supporting facilities in noise area of Beijing Daxing International Airport (Yufa Cluster B) (No. 6 Construction Section)	SBS hot melt sheet material and ARC-701 sheet material for resistance to root penetration
Procurement project of waterproof materials in the rental housing project in Plot F01-01, Neighborhood F01, Unit S010601, Nanpu Community, Huangpu District	Cementitious capillary crystalline waterproofing coating, ARC-711 sheet material for resistance to root penetration and SPU301
Professional waterproofing subcontracting engineering in the project of resettlement houses and supporting facilities in noise area of Beijing Daxing International Airport (Lixian Cluster B) (No. 4 Construction Section)	SBSIPYPE3 +3mm hot melt sheet material; SBSIPYPE3mm hot melt sheet material+ARC-701 sheet material for resistance to root penetration; SPU-301 coating 1.5mm thick; JSA-101
Project of Plot P5CC-X, Luneng Lingxiucheng	JSA101, SPU301, PBC328, SBS hot melt sheet material, ARC-701 sheet material for resistance to root

Project Name	Applied Materials
	penetration and SPU311
Project of China Railway 12th Bureau Group Co., Ltd. regarding resettlement houses in Cluster D2, Rongdong Area, Xiongan New District  Waterproofing engineering in the project of resettlement houses and supporting facilities in noise area of Beijing Daxing International Airport (Yufa Cluster B) (No. 7 Construction Section)	SBS hot melt sheet material, ARC-701 sheet material for resistance to root penetration and JSA-101  SBS hot melt sheet material, ARC-711 sheet material for resistance to root penetration and SPU-301
Project of Zhihui Lingying Town, Tangshan	SBS hot melt sheet material, ARC-711 sheet material for resistance to root penetration and SPU-301
Project of resettlement houses and supporting facilities in noise area of Beijing Daxing International Airport (Lixian Cluster B) (No. 5 Construction Section)	SBS hot melt sheet material, ARC-711 sheet material for resistance to root penetration and SPU-301
Waterproofing engineering in the construction project of Plot XDG-2019-53 by Wuxi Wangyu Metro Ecological Property Co., Ltd.	JSA-101, SAM930 self-adhesive sheet material, HDPE polymer self-adhesive film pre-paved waterproof sheet material and ARC-701 sheet material for resistance to root penetration
Project of West Zone of Shichuang Yigu Industrial Park (24 items including 1# scientific research building)	SBS hot melt sheet material, ARC-711 sheet material for resistance to root penetration, JSA-101 and SPU-301
Project of China Railway 15th Bureau Group Co., Ltd. regarding shared supporting facilities in No. 2 Section, three major public buildings, Central Green	SBS hot melt sheet material, ARC-711 sheet material for resistance to root penetration, JSA-101, SPU-301, PCC501 and BPS202
Roofing in the project of Xuesi Road	1.2mm "Zhanwuji" self-adhesive waterproof sheet material (PET); passive house roofing: PBW620, PBW630 and PBW660
Waterproofing construction work around passive house roofing and underground of main building	PBW630 and PBW650

Green products facilitate energy conservation and environmental protection effectively



Oriental Yuhong has set up technology R&D centers for near-zero energy consumption and exhibition centers in East China and North China. It integrated the resources of parts and components for near-zero energy consumption at home and abroad, and built a high-tech moat of its own products by introducing, developing and integrating new technologies. It can product its own graphite-modified molding polystyrene boards, mineral wool boards/strips, environmental-friendly XPS boards, adhesives and plastering mortar, alkali-resistant coated medium-alkali fiberglass mesh, anchors preventing thermal bridging, waterproof and vapor-proof membranes, waterproof and vapor permeable membranes, finishing mortar, among other waterproof and thermal insulation products of near-zero energy consumption.

Fuda, a subsidiary of Oriental Yuhong, signed the *Contract concerning Extruded Polystyrene HCFC Phase-out Project* with the Foreign Environmental Cooperation Center, Ministry of Ecology and Environment. It has completed the general technical transformation of replacing HCFC foaming with CO2 foaming, thus making products more environmental-friendly, and passed the acceptance of the Ministry of Ecology and Environment. In 2017, the United Nations awarded the certificate of honor for "valuable contributions and effective in protecting the ozone layer". Fuda adopted CO2 as raw material for foaming agent to produce high-performance environmental-friendly XPS boards, and directly consumed around 177.42 tons of CO2 in 2020, growing rapidly at an annual rate of 35%-45%. Additionally, the adoption of this environmental-friendly foaming agent and flame-retardant technology system by Fuda produces substantial environmental benefits to reductions in greenhouse gases. Adopting CO2 foaming technology is a feasible technical option for "carbon emissions peak around 2030" and "carbon neutrality by 2060".





By focusing on this new eco-friendly material, a series of new application technology systems have been developed and extensively applied to numerous projects, such as high-strength dry floor heating panels, high-strength thermal



insulation and decorative tiles, thermal insulation and sound insulation flooring tiles, integral bathroom substrates, basement sidewall panels, offshore wind power generator bases and other product systems. Besides, these systems have been successfully applied to thermal insulation of building walls, buildings of passive ultra-low/near-zero energy, roof insulation, insulation for refrigerators, HVAC system, municipal roads and bridges, integrated utility tunnel, dry floor heating, sound insulation of building ground, and other fields, and were widely recognized by customers. Therefore, Fuda became a strategic supplier for many top 100 real estate companies (TOP 50), industrial customers (Huawei, BOE, OPPO, etc.), as well as cold chain logistics companies (Baoneng, JD, Cainiao, etc.).

As per the definition stated in relevant national standards, green products in China are products that meet the requirements of environmental protection, are harmless or less harmful to the ecological environment and human health, consume less resources and energy, and have high quality throughout their life cycle. The selection of assessment indicators follows the principles of close attention paid by consumers, urgent need for consumption upgrade, considerable ecological and environmental impact, combination of green product and quality, as well as green products and companies throughout the product life cycle. In 2020, three categories of Oriental Yuhong's products were awarded the "China Green Product Certificate" by China Building Material Test & Certification Group Co., Ltd. The "China Green Product Certificate" is a certificate of honor issued to a company by a certification body on behalf of the state. Such certification was awarded to three categories of Oriental Yuhong's products, namely, asphalt-based waterproof sheet material (asphalt-modified), water-based waterproof coating, and polymer waterproof sheet material (plastic).









In the meantime, Oriental Yuhong kept promoting its special polymer modified bituminous waterproof sheet materials for buildings of near-zero energy consumption. Currently, more than 300,000 square meters of such materials are used in total. Oriental Yuhong and its brands are included in the directory of selected products for passive low-energy buildings by Kang-Ju Construction Parts Certification Center for seven consecutive years.

**Example 1** The new TPO polymer waterproof sheet material of Oriental Yuhong uses thermoplastic polyolefin elastomer as the main raw material, and is made by co-extrusion and rolling from imported high-quality TPO resin, supplemented by flame retardant, light screener, antioxidant, light stabilizer, reinforcing fabrics, etc. Such new material has passed the green product certification, the U.S. certification of Energy Star, the U.S. certification of Cool Roof Rating Council (CRRC), etc. The TPO polymer waterproof sheet material is an exposed waterproofing membrane. Its light-colored surface is highly ultraviolet-proof, and reflects most sunlight. Compared with conventional roofing, this material can effectively reduce the indoor temperature by 3-4 °C in summer, thereby cutting energy consumption of air conditioning. Therefore, it is energy-conserving and eco-friendly. The test data of the U.S. CRRC show that approximately 10%-30% energy is conserved.





**Example 2** Different from the ordinary exposed waterproof sheet material, the heat insulation self-adhesive asphalt waterproof sheet material of Oriental Yuhong is thinner ( $\leq$  2.0mm). It is produced by self-adhesive technique without consuming any heat source. Furthermore, on its surface, this material employs white heat insulation membranes which can effectively reflect light and heat (a test conducted in summer sunny days indicates that roof temperature can be reduced by 25%). As a result, the asphalt membrane can be better protected, extending the service life of waterproof membrane. Beyond that, the energy loss caused by indoor cooling in summer and heating in winter can be reduced significantly, thus cutting carbon emissions.



#### (IV) Building of Green Supply Chain

Oriental Yuhong has incorporated the principles of environmental protection into its mechanism for supplier management. Starting from the source of raw material extraction, production process, final consumption and other processes, Oriental Yuhong has formulated actionable green procurement standards and green procurement management programs that cover testing, certification, and implementation. This measure aims to minimize the adverse impact on the environment directly or indirectly, boost resource efficiency, and provide end consumers with green, healthy and eco-friendly products.

Oriental Yuhong puts green procurement in place. When procuring raw materials, it prioritizes the use of products with low-carbon production processes. Regarding consumer goods such as office supplies, it prefers products that are easy to recycle, in an effort to ease the environmental loads of the industry chain via green procurement.

**Example** The Company has established more stringent procurement grading standards and management procedures based on national standards. Aside from the product assurance approach of requiring raw material suppliers to provide both products that meet regulations and third-party testing, it also requires such suppliers to offer internationally-recognized chemical safety and quality instructions to take precautions from the source.

#### II. Performance of Environmental Governance

# (I) Policies and Industry Standards for Environmental Protection Emission of waste gas and pollutants

Integrated Emission Standard of Air Pollutants (GB 16297-1996) is applied to non-fugitive emission of waste gas in the sheet material workshops of Oriental Yuhong (emission concentrations of non-methane hydrocarbons, benzo(a)pyrene, asphalt fumes and particulate matters shall not exceed 120 mg/m³, 0.3 mg/m³, 40 mg/m³ and 120 mg/m³, respectively). The standard limit set out in the Emission Standard of Air Pollutants for Cement Industry (GB 4915-2013) is applied to non-fugitive emission of waste gas in the mortar workshops (emission concentrations of particulate matters shall not exceed 10 mg/m³).

The standards specified in the *Integrated Emission Standard of Air Pollutants* (GB16297--1996) are applied to the fugitive emission of non-methane hydrocarbons and particulate matters at boundary (emission concentrations of particulate matters and non-methane hydrocarbons shall not exceed 1.0mg/m³ and 4.0mg/m³,



respectively). The special emission limits for air pollutants stated in the *Emission Standard of Air Pollutants for Boiler* (GB 13271-2014) are applied to non-fugitive emission of the Company's gas-fired boilers (emission concentrations of nitrogen oxides, sulfur oxides and particulate matters shall not exceed 150 mg/m³, 50 mg/m³ and 20 mg/m³, respectively).

The standard limit stated in the *Emission Standard of Cooking Fume (on Trial)* (GB18483-2001) is applied to canteen fumes (emission concentration of fumes shall not exceed 2.0 mg/m<sup>3</sup>).

#### Sewage discharge

The *Integrated Wastewater Discharge Standard* (GB 8978-1996) is strictly applied to sewage discharge. The standard is not lower than the Class III discharge standard: PH:6--9; BOD, COD, ammonia nitrogen and suspended solids shall not exceed 300 mg/L, 500 mg/L, 45 mg/L and 400 mg/L, respectively.

#### **Noise emission**

Class 3 standard stated in the *Emission Standard for Industrial Enterprises Noise* at *Boundary* (GB12348--2008) is applied to noise emission (noise limits for day time and night time are 65 decibels and 55 decibels, respectively).

## **Solid waste**

The Standards for Pollution Control on the Storage and Disposal Site for General Industrial Solid Wastes (GB18599-2001) is applied to general solid wastes, and the Standard for Pollution Control on Hazardous Waste Storage (GB18597-2001) to temporary storage of hazardous solid wastes.

The above standards are strictly applied to all pollutant emissions. If local standards are stricter than national ones, the former shall prevail. All plants complied with the guidelines, standards and requirements of the *Technical Specification for Application and Issuance of Emission Permit-General Part* (HJ942-2018) issued and implemented by the Ministry of Ecology and Environment on 8 February 2020. The Company performed stringent self-inspection and review in all respects including basic production facilities, product output, pollution processes, treatment facilities, permitted emission levels of major pollutants, self-monitoring, and ledgers and records of environmental management, and all plants obtained the national emission permits.

## (II) Energy Conservation and Consumption Reduction

Oriental Yuhong carried out 5S management and lean production continuously in different production bases. Through rectification, production sites became clean and orderly, and production processes became safe and highly efficient. At the same time, the Company strengthened system management, to ensure standard and scientific management, and improve operation efficiency of the system.

**Example 1** In Puyang Plant, energy loss is reduced by renovating thermal insulation of pipelines and recycling of condensate. Regarding overhaul and technical innovation, thermal insulation is installed in repaired and new pipelines to decrease thermal loss. Meanwhile, steam condensate was not collected in the past, but now pipes are installed to collect such condensate for use in waterborne coating workshops, thereby effectively reducing the waste of water resources. Besides, the gas usage falls by means of technical innovation, adjusting air-fuel ratio and ensuring complete combustion.

**Example 2** In Deyang Plant, regular lights in the office area is replaced by sensor lights to save power and enhance the awareness of energy conservation. On top of that, heat exchangers increase, and residual heat in boilers is reused, in order to minimize the waste of thermal energy.

**Example 3** In Jiande Plant, check valves are installed in the head tank to prevent hot oil in the pipeline to flow to the head tank, thus leading to thermal loss. The temperature falls from 120 °C to 45 °C, hence saving 10% of gas consumption.

**Example 4** In Jiande DAW Plant, RMB500,000 was invested in renovation for energy conservation and reduction: 1) The transformer used to be SCB11 with Level III energy consumption, and is now replaced by SCB13 with Level II energy consumption; 2) The lights in workshops and living areas are replaced by sound-activated lights and optical control lights; 3) The ventilation in the R&D building of oily materials is replaced by separate activated carbon fans and Class A workshop VOC equipment separation 4 base material tank mixing and floor-type dispersers to increase frequency converters.

**Example 5** Pneumatic transport blowback system in the coating workshops were transformed to increase impulses. Previously, the workshops needed to turn on two 55 kw air compressors simultaneously, but now they only need to turn on one compressor only, hence saving 50% of energy.

**Example 6** Thermal insulation is installed on the top of asphalt mixing tank to minimize thermal loss. The surface temperature of the mixing tank used to be 55 °C, but after thermal insulation, the temperature of its top is now 20 °C, therefore substantially reducing thermal loss.

**Example 7** Application of renewable technologies and resources for production with low-carbon emissions, recycling of recycled materials, and zero carbon emissions technology. Technology for EO recycling and re-use makes EO recycling possible, and burning of raw carbon can be avoided. Carbon emission drops by 10%.

Other Major Energy Consumption and Emission Indicators of Oriental Yuhong

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Energy Consumed		Unit	Indicator
	Natural gas consumed	Natural gas consumption (m3)	175,098,690.6
	Gasoline	Gasoline consumption (t)	19,556
Diesel	D	Diesel consumption (t)	
COD emission (t)	COD emission (t)		323.555
Water	Water consumption (t)		32.65108

# Details of Energy Indicators in Some Production and Logistics Bases of Oriental Yuhong

Item	Shandong Laixi				Guangdong Huizhou		Yunnan Kunming	Hebei Tangshan
Energy consumption per unit of output value (tce/RMB10,000) (ton of standard coal/RMB10,000)	0.09	0.09	0.08	0.10	0.08	0.06	0.07	0.10
CO2 emission (t) CO2 emission per RMB10,000 operating revenue (t)	0.22	0.22	0.21	0.27	0.19	0.16	0.18	0.25
Item	Anhui Wuhu	Hangzhou Jiande		Hubei Jingmen	Sichuan Deyang	Shaanxi Xianyang	DAW Yueyang	DAW Jiande
Energy consumption per unit of output value (tce/RMB10,000) (ton of standard coal/RMB10,000)		0.09	0.08	0.09	0.08	0.08	0.06	0.03
CO2 emission (t) CO2 emission per RMB10,000 operating revenue (t)	0.20	0.22	0.20	0.22	0.20	0.20	0.16	0.08

# (III) Investment in Environmental Protection

Producers must be responsible for the waste caused in the production. In accordance with this principle, Oriental Yuhong carried out environmental evaluation, increased environmental investment, unified production site management, and



strengthened control and treatment on pollutants and wastes, to reduce influence on community and surrounding ecological environment.

Statement on Oriental Yuhong's Main Investment in Environmental Protection

Type	Item	Input (Unit: RMB'0,000)		
Prevention	Prevention and testing	195.86		
Solid waste	Solid waste treatment	802.15		
	Activated carbon and caustic soda flakes	36.02		
	Transformation of dirt catchers/boilers and chimneys	124.30		
Air	Asphalt smoke treatment	2371.80		
	Transformation into low-NOx boilers	208.00		
	Investment in other environmental protection facilities	388.17		
Water	Treatment of domestic and industrial wastewater	313.79		
Noise	Noise reduction devices	26.20		
Electricity	Equipment insulation and lighting	292.35		
	Greening	706.60		
Others	Emergency response pool	14.85		
- Culcio	Governance of surrounding environments	35.48		
Total	RMB55,155,700			

**Example 1** In 2020, Huizhou Plant invested over RMB4 million in asphalt smoke treatment. It replaced previous environmental protection facilities with regenerative thermal oxidizers (RTO), the state-of-art environmental protection technology in China, tremendously reducing asphalt smoke emissions. Meanwhile, Huizhou Plant invested RMB240,000 in transforming natural gas heat conduction oil boilers into low-nitrogen combustion ones, reducing oxynitride emissions.

**Example 2** Jingmen Plant invested RMB250,000 in collecting respiratory exhaust in asphalt storage tanks and the discharge area through pipelines for organized emissions after treatment in RTO incinerators, preventing pollution arising from unorganized emissions. At the same time, Jingmen Plant installed two sets of VOCs online monitoring facilities in the exhaust pipes of the two RTO incinerators for supervising operation and emissions of environmental protection facilities in workshops.



**Example 3** Laixi Plant invested RMB3.5 million in building RTO asphalt smoke treatment devices, greatly reducing air pollutants including particulate matters (PM), non-methane hydrocarbons (NMHCs) and stench. Its emission standards are stricter than national and local ones.

Example 4 Puyang Plant completed three major environmental improvement projects in the year: 1) Unorganized collection was changed to organized collection for environmental protection in workshops of polyurethane (PU) and waterborne coatings. A new set of bag-filtering dust precipitator came into use. In line with the principle of "all dust should be collected as far as possible", Puyang Plant changed unorganized treatment to organized treatment. 2) Unorganized collection and treatment in the asphalt tank area and the PU tank area were changed to organized collection and treatment. Also, Puyang Plant used new pipelines retrofitted with fans to collect unorganized emissions on top of tanks for treatment in RTOs, dealing with odor on the site. 3) Puyang Plant installed the bulk material access control system and installed the online monitoring system in exhaust chimneys. Through the bulk material access control system, emission standards for vehicles were automatically identified, and vehicles under the national V emission standards could not enter without lifting boom barriers. The online monitoring system could be connected to the system of the local environmental protection authority to monitor whether enterprises' emissions breached the standards and whether pollution prevention facilities operated as expected.

**Example 5** Xuzhou Plant invested more than RMB8 million in transforming previous "water spray + electrostatic adsorption" environmental protection facilities in coil workshops into RTO systems, achieving total treatment capacity of 70,000 cubic meters/hour. VOCs emission reduction amounted to 3.1053 tons/year. Meanwhile, Xuzhou Plant installed two sets of VOCs online monitors to ensure effective operation of environmental protection facilities.

**Example 6** In 2020, to respond to the call of environmental protection, Chuzhou TDF reduced use of coal. After communication with the local environmental protection bureau, it phased out a water-coal slurry heat conduction oil boiler and put into operation two natural gas heat conduction oil boilers and a natural gas steam boiler at the end of 2020. Moreover, to meet the ultra-low emission requirement, TDF transformed low-NOx burners of three natural gas boilers, reducing the emission concentration of oxynitride from 150mg/m3 to 50mg/m3 and achieving ultra-low emissions. The three new natural gas boilers were at a cost of RMB7.5 million.



**Example 7** In 2020, Chuzhou TDF equipped Workshop I with new VOC treatment facilities, and put into operation the VOC facilities in Workshops II, III and IV.

**Example 8** In 2020, Chuzhou TDF added online monitoring equipment to its sewage treatment stations to timely acquire the sewage discharge data and adjust the operation status of sewage treatment facilities as appropriate, aiming to achieve discharge standards.

## **III. Green Operations**

## (I) Standard Construction of Oriental Yuhong

Oriental Yuhong strictly abides by the following building principles: reducing site disturbance, respecting local environment, paying attention to climate, saving energy, reducing environmental pollution, increasing environmental quality, carrying out scientific management, and ensuring construction quality, so as to reduce construction disturbance and influence to the surrounding environment to the minimum level.

Oriental Yuhong acted as a forerunner in the industry to propose the philosophy of standard construction. By integrating concepts of standard construction and reasonable management, it formed a series of procedures for standard whole-chain service, including sound and professional pre-job training for waterproofing technicians, unified and standard construction process, clean and safe construction environment, and strict and transparent construction management.

Standard construction of Oriental Yuhong benefited its customers and led the industry. With continuously improved quality standards, Oriental Yuhong has been highly recognized by its customers. Oriental Yuhong adopted premixed combustion for its independently developed hot-melt paving waterproofing coil machines. While improving the combustion efficiency, it protected the environment without emissions of CO or NOX. Moreover, the machines were lightweight and small. In addition, Oriental Yuhong was equipped with multiple mechanic construction devices to improve construction efficiency and reduce energy consumption of manual operation.

**Example 1** Oriental Yuhong had the independent intellectual property right of the "Rainbow Cyclone" non-curing rotary heating device, which had a sample and light structure and an overall weight of 33kg. Omni wheels were installed underneath the device, making it easy to move. The device also had a digital temperature control system featuring highly accurate temperature control. With dynamic rotary heating in constant temperature, materials



would not be overheated or carbonized, nor would they start fire. Thus, the performance of materials would not be affected.

**Example 2** The Xtreme Z45 electric waterproofing coating sprayer is applicable to PU, non-curing, polymer cement-based, asphalt and other waterproofing coatings, providing a smooth and stable spray width. Compared with manual roll coating, the sprayer can improve surface quality and reduce cracks, bubbles and reworking. Meanwhile, its labor costs are 40% less than those of manual rollers. In addition, the sprayer is easy to operate and carry.

**Example 3** Oriental Yuhong imported equipment from Graco Inc. Such equipment enjoys reliable quality, stable pressure and proportion, and long service life. It is applicable to waterproof coatings such as polyurea and foaming polyurethane with a high flow rate and construction efficiency. The maximum flow rate could reach 10.6L/min. The equipment has a range of functions including multiple protective and monitoring measures such as alarms, warnings, pressure derivation and overtemperature.

**Example 4** Oriental Yuhong cleaned up the floating slurry on the surface of the base to improve the adhesion of the waterproofing layer to the concrete substrate. With high cleaning efficiency and a small number of operators, it was easy to achieve mechanization. As no compressed air was used and no large compressed air stations were required, no moisture was generated when the substrate was cleaned up. With its own dust removal device, the equipment did not generate dust.

In promoting mechanization construction, Oriental Yuhong paid attention to the integration of practice with training, organized many times of construction competition and field training, and promoted company-wide mechanization construction.

#### (II) Green Life

To enrich spare-time life of employees, create harmonious corporate culture, and achieve goals of happy work and green life, branch companies and subsidiaries of Oriental Yuhong organized clubs of reading, hiking, jogging, badminton and basketball, provided relevant training, and engaged in green practice.

**Example 1** Oriental Yuhong held the event of "Being Honorable and Polite Yuhong People", advocating for frugality and environmental protection in the Company. Through self-discipline and self-motivation of employees, the Company endeavored to improve quality of Yuhong people and maintain a positive atmosphere.

**Example 2** The Company launched the event of "Being Healthy and Energetic Yuhong People", advocating for moderate exercise, weight management and smoking cessation.



Based on self-discipline of employees, the Company granted cash bonus to employees participating in the event and meeting certain standards.

**Example 3** The Company held the event of "Being Professional Yuhong People Taking Delight in Learning", encouraging its employees to be ready to learn and become professional, to seek progress, and to improve their personal intellectual literacy.

Example 4 In collaboration with Beijing GeoEnviron Engineering & Technology, Inc (BGE), the Company held an online sports meeting with the theme of "Joint Pandemic Prevention and Control · Healthy Jogging", encouraging staff to take part in sports in a safe environment. To maintain vitality and health, Oriental Yuhong launched the online sports meeting for its staff. Via the third-party sports APP, performance and data were recorded online for real-time competition. Meanwhile, both indoor and outdoor modes could be selected. It was introduced that a total of 39 teams, including 14 representative teams of Oriental Yuhong and seven of BGE, participated in this online sports meeting. They practiced the corporate spirit of "all success hinges on human effort", and passed on positive energy.



# IV. Planning for Green Development

As proposed in the government work report in 2021, "the period covered by the 14th Five-Year Plan will be the first five years in which we embark on a new journey to build China into a modern socialist country in all respects. We should have an accurate understanding of this new stage of development, fully apply the new development philosophy, and accelerate our efforts to create a new development pattern to promote high-quality development. By doing so, we will set the stage for building a modern socialist country in all respects." The 14th Five-Year Plan for Economic and Social Development and Long-Range Objectives through the Year 2035 sets major quantified objectives and tasks for economic and social development



during the 14th Five-Year Plan period and proposes new thinking and requirements for ecological environment protection.

While proactively seeking corporate development, Oriental Yuhong has earnestly implemented the new development philosophy, promoted high-quality development via "green" and low carbon, and valued environmental protection. In response to climate change, it adhered to the path of sustainable development as always, practiced the philosophy of "building a system for green architecture and construction materials", led the architectural material industry to comprehensively achieve green, energy-saving, low-carbon and environmentally friendly construction goals, strengthened green upgrading and transformation of the Company, and built a green manufacturing system. Oriental Yuhong kept working hard to achieve the beautiful vision of improving the life cycle of buildings.

### (I) Promotion of Clean Energy

China's energy structure has long been dominated by coal, resulting in low energy efficiency. Vigorously supporting clean energy development, the Company conducted distributed PV power generation and electricity storage projects more vigorously in its production and logistics bases. At present, it has completed bidding of PV design of its production and logistics bases put into operation at the first batch, and reserved PV support brackets for the bases under construction.

Joining hands with leading enterprises in the PV industry, the Company will push ahead with the atlas and standards of the roof PV waterproofing integrated system, lead the industry development, and better serve its customers. PV power stations in the Company's production and logistics bases meet the *Code for Design of Photovoltaic Power Station* (GB50797-2012), *Technical Requirements for Connecting Photovoltaic Power Station to Power System* (GB/T 19964-2012), *Standard for Design of Cables of Electric Power Engineering* (GB50217-2018) and *Technical Standard for Photovoltaic System on Building* (GB/T51368-2019).

In the future, Oriental Yuhong will proactively promote energy-saving projects including PV power generation, low-temperature operation of heat conduction oil, solar heating, and boiler/air compressor waste heat reuse, and strive to achieve peak carbon emissions per RMB10,000 of operating income by 2050.

#### (II) Performance of Green Production

With the production and operation center at the center of its driving force, the Company has promoted certification as green plants, and established and improved



the management objectives and assessment mechanisms regarding safety and environmental protection, energy conservation and emission reduction, and social responsibility. Based on the green plant standards of the MIIT, certification of the three ISO systems and certification of China Environmental Labeling, the Company has actively made efforts in management of safety, environmental protection, occupational health and energy in its production and logistics bases. The Company seized the opportunity of national environmental performance grading for self-improvement. All of its plants in national key environmental areas met Grade A standards, and environmental protection facilities in new plants were all installed following the Grade A standards.

#### (III) Emission and Consumption Reduction

Oriental Yuhong proactively participated in transactions at the electricity market. It reached strategic cooperation in electricity sales business with power generation plants such as Datang International Power Generation Company, aiming to improve fuel management, program management and production stability of power generation enterprises, especially thermal power enterprises and better reduce carbon emissions arising from power generation.

The Company vigorously promoted the use of advanced pollutant treatment processes and advanced treatment facilities such as RTOs in its production and logistics bases to treat exhaust gas arising from asphalt waterproofing coils, asphalt coatings and others. Compared with the traditional electrostatic dust removal and alkaline cleaning processes, the advanced processes reduced more than 50% of the PM emissions, nonmethane hydrocarbon emissions and odor emissions, and VOCs emission treatment efficiency could reach up to 95%. Meanwhile, the Company carried out energy-saving transformation of air compressors to further improve the energy efficiency level of air compressors in its plants. Moreover, the Company reduced energy consumption of appliances and equipment with huge electricity consumption. According to the standards of Hefei Institute of Mechanical and Electrical Research, the power-to-weight ratio of innovative energy-saving air compressors was measured, showing that the air compressors could save more than 20% of energy.



# **Chapter IV Safety Responsibility**

This chapter is about policies and measures used for ensuring employee safety, including the establishment of an organizational system for safe production, formulation and implementation of safe production policies, and adoption of effective protective measures.

Safety is basic support of the Company's operation, and is the top priority of the Company. Following the principle of "safety first, prevention first", the Company implemented the safety responsibility policy at all levels to prevent any accident. Oriental Yuhong has fostered awareness of "all employees participating in safety management", improved its safety management system, established safety policies, organized safety education and training, and improved safety awareness and crisis management skills to ensure stable production and normal operation of the Company.

## I. Safety Management System

In accordance with national safety monitoring & management laws and regulations, Oriental Yuhong strengthened safety system construction, and revised and improved some safety management systems, including *Safe Production Responsibility System*, Safety Education Management System, *Safety Inspection Management System*, Safe Production Reward & Punishment System, and Dangerous Chemical Safety Management System, etc. It also elaborated the safety responsibility.

Example 1 Safety management policies in production and logistics bases of Oriental Yuhong

System of responsibility in safe production	Firework management system	System for safety hazard inspection
System for safety education and management	System for occupational health management	Management measures for honesty and self-discipline
System for safe production inspection	Management system for reporting and dealing with workplace accidents	Management system for entering and leaving plants of Oriental Yuhong
System for rewards and punishment for safe	Management system for fire safety	Coordinated management system for safety in plants



production		
Management system for labor protection supplies	Management system for safe use of electricity	Management measures for limited working space
Management system for safety of hazardous chemicals	Emergency management system for fire accidents	Management regulations on safety penalties in production and operation centers
Management system for equipment safety	Management system for emergency response to chemical leakage	Management measures for dealing with work accidents in production and operation centers
Management system for special operation safety	Management system for safety of construction of external personnel	Management regulations on assessment of safety credit reward points of employees in production and operation centers
Management system for high-place operation safety	Management system for safety of trainees, trainers and inters	Management system for employee transportation safety
Management system for smoking ban	Management system for forklift safety	Regulations on wearing safety helmets
Management system for cargo transportation safety in plants	Management system for changes	Management system for electrostatic and explosion-proof safety

Example 2 Responsibility System of Manufacturing Center for Environment and Safety

In accordance with national laws and regulations, it defined the responsibilities of each post for environmental protection and production safety to prevent environmental and production safety accidents and assume legal responsibilities for dereliction of duty and consequences of accidents. It stuck to the principle of "safety must be guaranteed in production and business management, and whoever is in charge shall be responsible" and strictly implemented the production safety responsibility system by carrying it out at every level. It stuck to the principle of "lifelong responsibility system", i.e. nobody could be exempted from liability after transferring if violations against laws and regulations arose during his/her term of office but with ill consequences occurring in subsequent term of office of other people, which caused criminal offense or administrative sanction or serious environmental or safety accident; the Company would punish him/her as alike as those in term of office. The



Company reserved the right to hold the responsible person legally liable even if he/she left office or retired.

**Example 3** Oriental Yuhong safety information management system has been launched in each production and logistics base, bringing scientific, systematic and convenient safety management, and achieving resources sharing in system management.

**Example 4** It has set up and implemented the management system of safety conference and the management system of safety inspection both at all levels. A safety competition system based on process and initiative indicators has been established and implemented, which integrated accident prevention into routine work and greatly stimulated the enthusiasm of all departments in the production and logistics bases to compete with, learn from and surpass each other, achieving excellent results.

Each system and each clause have been implemented in every department, workshop, construction site and post. Suitability and effectiveness of systems and operating instructions were reviewed annually to revise unqualified items and improve the rules and regulations.

#### **II. Safe Production**

Oriental Yuhong carried out safe production responsibility system, which covered the whole network of construction and staff, to ensure the fulfillment of safe production responsibility. It also completely carried out safe production standardization and HES safe production system.

To ensure the fulfillment of safety management system, the Company set up special safety management department in different factories and arranged professional safety management persons.



Oriental Yuhong established a consolidated safety management team, with safety management directors of different factories as team members and production & operation director as leader. The team was responsible for safety management of different factories. Long-term coordination mechanism was set up and safety information and resources was shared. Members worked together to ensure the accomplishment of safe production objective of the whole production & operation system.

Input Details for Safety Production in Main Production Bases of Oriental Yuhong

Туре	Item	Input (Unit: RMB'0,000)
	Procurement, maintenance, repair and testing of fire-fighting equipment	190.05
	Lightning protection and anti-static maintenance, repair and testing	31.27
	Maintenance, repair, testing and inspection expenses of special equipment	219.20
Equipment and	Expenditure on safety signs & warnings and publicity	65.78
facilities upgrading, reconstruction,	Safety protection upgrading, reconstruction and maintenance expenses of mechanical equipment	207.62
maintenance and testing	Upgrading, reconstruction and maintenance expenses of fall prevention facilities in high-place operation	45.70
	Upgrading, reconstruction and maintenance expenses of safety facilities in hoisting operation	32.50
	Upgrading, reconstruction and maintenance expenses of safety facilities in inflammable and explosive places	73.97
	Improvement, reconstruction and maintenance expenditure of other safety equipment and facilities	146.93
Emergency rescue	Expenditure on equipping and maintaining emergency rescue equipment and on emergency drills	86.98
Rectification against hidden trouble	Expenditure on evaluating, monitoring and rectifying major sources of danger and latent danger of accidents	281.58
Evaluation and consultation	Expenditure on production safety inspection, evaluation, consultation and standardization	153.83
Prevention and control of	Expenditure on provision and renewal of safety protection articles for on-site operators	355.19
occupational diseases	Expenses related to physical examination of occupational diseases and occupational hazard factors	65.57



Туре	Item	Input (Unit: RMB'0,000)
	testing	
Training and education	Expenditure on publicity, education and training of production safety	41.52
Four "New"s	Expenditure on promotion and application of new technologies, new standards, new processes and new equipment	807.74
Safety culture	Expenditure on enhancing the Company's total participation in safety culture and safety incentives	68.85
Others	Other expenditure directly related to production safety	144.42
Total	3018.7 (Unit: RMB'0,000)	

**Example 1** Production and logistics bases of Oriental Yuhong launched the safety month campaign in June and November successively. The campaign aimed to train the safety management personnel and employees in important posts to further strengthen their emphasis on safety work and crisis management capability. To ensure production safety, all staff must enhance their safety and environmental protection professionalism, adhere to the idea of safe development and environmental protection, effectively prevent safety accidents and improve production safety.

**Example 2** The fire safety of production and logistics bases was the last line of defense to prevent the occurrence and expansion of fire accidents. To deal with shortage of fire-fighting equipment, the production and logistics bases regularly checked the fire-fighting equipment, added more fire monitors in the asphalt tank area and meanwhile supplemented supporting fire hoses, which have all in place now. In 2020, fire drills were conducted in each production base to deal with emergency fire accidents with quick response and handling. In October, an inter-factory fire safety competition was organized to facilitate learning, which developed the employees' on-site handling capability and improved the linkage handling ability between the factories and local fire departments.

**Example 3** At the beginning of 2020, each production and logistics base signed letters of safety responsibility with the management personnel above the level of group and team leader of the Company to ensure the participation of all staff and the effect of joint management, achieving the goal of "zero" safety accident throughout the year and effectively curbing safety accidents. Safety training was conducted for



factory staff on a regular basis, which improved the safety awareness of constructors and laid a good foundation for avoiding safety accidents.

**Example 4** To improve the grasp of all staff on the *Regulations on the Administration of Safety Penalty of Manufacturing Group*, each department studied the *Regulations* on every morning meeting and safety cases were shared every day. Factories organized exams on *Regulations on the Administration of Safety Penalty of Manufacturing Center* to improve the safety awareness and mastery of personnel at all levels and to secure their safety.

## **III. Product Safety**

To ensure the safety of Oriental Yuhong products, the Company has taken the following measures to strictly control product quality and ensure product safety.

- 1. Oriental Yuhong has passed the authentication for quality management system, environmental management system, occupational health and safety management system, measurement management system, CE, CTC, CRCC, Chinese environmental labeling, etc. It strengthened and improved the operation of management system. Its products meet safety standards stipulated by domestic and international rules and regulations, and hidden safety risks for customers and society are eliminated.
- 2. Liquid asphalt and emulsion are stored in sealed tanks and transported with sealed pipe, thus ensuring air insulation. In the product preparation process, safety protection measures shall be fulfilled to avoid hidden risks that the product may bring to workers in the workshop.
- 3. Product packages meet safety standard and have no leakage risk. Safety technology instructions are posted on products to inform customers of safe storage, safe transport, safe application procedures, safety precautions, and emergency treatment measures.



- 4. The production, storage, transportation, use, and application of dangerous products shall be carried out in accordance with legal safety precaution measures, to ensure the safety of enterprise, employees, the public, and society.
- 5. Product quality safety is taken care of by pulling system. The QR code is applied for the management of output and input of warehouse to achieve first-in-first-out of materials and improve the efficiency of material turnover. Product quality tracing is made in the whole process.
- 6. The Company has established a product tracing system, which gives each product an identity code and enables all-round traceability to the processes in the product life cycle. By scanning the identity code of the product to query the information of each specific product, such as its production workshop, production team, the person in charge of research and development of the product formulation process, and product packaging and product use cycle, to monitor the cycle process of each product and prevent the application of counterfeit and shoddy products in the production.

# IV. Social Safety

As an important social organism, enterprises must focus on social safety for the normal operation in the economic and social activities. The following is the implementation of the relevant measures to ensure social safety of Oriental Yuhong:

- 1. The whole company strictly promoted the "Basic Rules of Oriental Yuhong", which explicitly stipulates that the Company abides by business norms, ethical guidelines, all laws and regulations, and respects social customs and religious beliefs;
- 2. The Company clarified the responsibility of the incumbents for the safety construction of the society and community, and strictly prohibited any behavior endangering public safety;



- 3. The Company strengthened the education of public safety for incumbents, including prohibiting illegal entertainment and assembly activities, complying with traffic safety regulations during the commute, ensuring the safety of driving, and avoiding causing adverse effects on the public;
- 4. The Company increased the investment in environmental protection of the plant, invested a lot of human and material resources in the treatment of pollutants, strictly controlled the discharge of pollutants and eliminated the environmental impact on the surrounding communities;
- 5. As a corporate citizen, Oriental Yuhong constantly strengthened social safety measures. The Company organized interactive safety and fire drills, conducted fire emergency and rescue drills for employees, issued first aid manuals to employees, publicized emergency rescue knowledge, and built a safety atmosphere of "everyone pays attention to firefighting and everyone participates in firefighting";
- 6. The Company organized lectures on anti-terrorism and traffic safety to raise the awareness of all employees on anti-terrorism and traffic safety.

Examples Yueyang Plant, Deyang Plant, Jiande Plant, Xuzhou Plant, Shanghai Plant, etc. actively linked up with local development zone management committee, fire brigade, district and county departments to conduct fire drills to improve the fire management level of factories while contributing to community safety.





# **Chapter V Human Rights and Labor Practices**

This section covers legal compliance, response policies, protection of basic employee rights and benefits, compensation and benefits, occupational health, employee development and employee care, etc.

Employees are the most precious resources and wealth of an enterprise. Oriental Yuhong treasures highly the value of its employees. Adhering to the corporate tenet of "for the motherland, for the society, for customers, for employees, and for shareholders", in combination with the Company's developmental stage, industry features, and talent structure characteristics, Oriental Yuhong exerted efforts to explore relevant effective approach, sparing no efforts to maintain the legitimate rights and interests of its employees. In 2020, the Company continuously created internal and external communication channels without boundaries, highlighted protection for the rights and interests of vulnerable groups, and strengthened security, environmental protection, and occupational health management; at the same time, built a multi-dimensional and solid employees care system, implemented diversified staff incentive policies, straightened out all employee career development channels, continuously promoted their growth and development, continually improved employee satisfaction, made great efforts to guarantee the realization of rights and interests of the employees, rewarded employees and contributed to the society wholeheartedly.

# I. Building of Talent Team

Putting the people-centered development philosophy into practice, Oriental Yuhong recruited 126 fresh university graduates in 2020, introduced American scientists, extensively absorbed excellent talents from both home and abroad, and won the national and provincial talent award. The Company adheres to its practice of retaining talent through cause, through benefits, through environment, and through



emotional attachment, optimizes its talent team structure, and jointly promotes the lasting foundation of enterprise development.

## (I) Employee Composition by Specialties

Professional Type	Number of the Professionals
Production person	2603
Salesperson	3077
Technicians	1861
Financial staff	301
Administrative personnel	2077
Total	9919

# (II) Education Background of Employees

Education Background	Number of People	Proportion in the Total Employees
Master or above (including Master)	356	3.60%
Bachelor's degree	3854	38.93%
College or below (including college)	5709	57.47%
Total	9919	100%

# II. Vulnerable Groups

# (I) Fair, Just, and Nondiscriminatory Recruitment Policy

The Company complies with the international convention on labor and human rights, abides by the Labor Law of the People's Republic of China, Labor Contract Law of the People's Republic of China and the Trade Union Law of the People's Republic of China, advocates recruitment policy of equality and non-discrimination,



prohibits any acts of discrimination in recruitment, compensation, benefits, and promotion, gives fair treatment of employees of different nationality, race, and cultural background, fully respects the habits and customs of employees of all nationalities, respects employee's rights to freedom of religious belief; focuses on promoting employment of women and minorities, and continually creates for employees a just, fair, harmonious, and humanistic working environment.

## (II) Protection of Women's Rights and Interests

Women's rights are one of the important rights of the human rights. The Company respects female employee career development, and practices equal pay with equal post for both men and women employees. Women employees enjoy completely equal political rights, and under equal conditions, promotion favors female employees. As at 31 December, 2020, the number of female employee is 2120. In Trade Union management, employee general assembly and other important decision-making meetings, female employees enjoy equal rights and status.

The Company cares for women employees' physical and mental health, strictly abides by the relevant state provisions, fully guarantees female employees "3-period" holidays, strictly prohibits female employees from participating in the 4th grade heavy manual works, strictly prohibits female employees from cold water and low temperature operation during menstrual period. Considering the special needs of female employees, in connection with hospital suggestions, during the different stages of pregnancy of female employees, the Company supplements them with additional antenatal care holidays. After birth holidays, the post return rate of female employees will each 100%. During "March 8th" (International Women's Day) each year, female employees have welfare vacations.

## (III) Vulnerable Group Protection

The Company protects practically the legitimate rights and interests of the disabled and other vulnerable groups; the Company also participates in recruitment



fair specially prepared for the disabled every year, and provided for the disabled many posts of employment opportunities, such as sales representative, construction manager, and internal or office work.

#### **Example Yuhong Care Fund**

Since 2013, Oriental Yuhong has set up the "Yuhong Care Fund" to promote the Company's fine tradition of "one in difficulty and all will support" and to carry forward the spirit of "for the motherland, for the society, for customers, for employees, and for shareholders". Every year, the Company provides financial assistance to employees and their children who have difficulties in life due to medical treatment, education and natural disasters, and provides care and sympathy to outstanding employees who are dedicated to their work. The Company attaches great importance to the health of employees. In addition to routine medical check-ups, the Company subsidized families who were experiencing difficulties due to major illnesses, with a focus on serious illnesses and family difficulties, and has spent a total of more than RMB10 million.

# III. Basic Rights and Protection

# (I) Protection of Basic Human Rights

Oriental Yuhong has established a strict human resource management system, strictly prohibiting and resisting the recruitment of any form of child, strictly avoiding the occurrence of forced labor, as a result, no recruitment of child and forced labor has never occurred so far.

The Company advocates "border-less communication" concept, and actively builds internal and external no-boundary communication channel. Employees may report all kinds of human rights issues or problems that they have encountered or may possibly occur across departments, cross-posts, cross-regional via office software, enterprise email, petition, report box and other kinds of online and offline channels. To the impeachment and petitions of employees, the Company will investigate and deal with in time, and each investigation will reach its conclusion, and will never



delay. In 2020, there was no, not even one, report of violation of human rights or petition occurred.

## (II) Upholding of Labor Rights and Interests

The Company has set up Trade Union organization in accordance with relevant provisions. At the same time, the Company has set up business committee to encourage employees to actively participate in enterprise innovation, business management, to listen to the voice of the operation front line, and respect the rights and interests of employees at the grass-roots level.

The Trade Union has set up labor dispute mediation committee and labor dispute mediator team, adheres to its practices of deep engagement with employees, listens to their voices through various channels, carefully answers hot, difficult and focus issues of their concern. To the major issues or problems reflected by employees, the Trade Union adheres to the principle that "consulting must be replied, complaints must be dealt with, and processing or treatment must have a result".

Employees' labor relation, salary & benefit, labor protection, work time, holiday system and other events that are in close relation with employees' interests are discussed by employee representative conference strictly in accordance with related policies and regulations. The conference fully listened to opinions and adopted suggestions of the staff, then negotiated, announced, and specified them in collective contracts.

# (III) Employee Satisfaction

Oriental Yuhong continuously makes investigation on employees' satisfaction. Centering on key factors influencing employees' satisfaction, including fair opportunity, development space, cultural atmosphere, salary & benefit, Oriental Yuhong made the investigation on the satisfaction degree of different levels of employees via office system and WeChat APP. The investigation identified key



factors influencing employees' satisfaction, specified detailed improvement measures, and effectively improved employees' satisfaction.

## IV. Employment and Recruitment

# (I) Employment Security

The Company established and improved labor system and regulated employment management. The rate of signing labor contracts with employees was 100%. The Company improved the system of posts to meet the demands of market and corporate development. The Company also established competitive employment system and gradually optimized employment structure, to avoid overuse of part-time laborers provide a secure employment system. In November 2020, the list of Top 100 Best Employers in China 2020, awarded by Zhaopin and Peking University Social Survey Research Center, was unveiled. Relying on the excellent talent strategy and rapid response to the market and continuous improvement in organizational effectiveness, Oriental Yuhong was awarded the "Top 100 Best Employers in China 2020".

## (II) Local Employment Promotion

In 2020, the Company insisted on localization recruitment policy, under equal conditions, priority was given to the hiring of local staff, which, relying on the rapid local business development of the Company, strongly promoted the local employment rate. With its continuous strategic map expansion, the Company had set up wholly owned subsidiaries in Beijing, Guangdong, Shenzhen, Tianjin, Sichuan, Kunming, Nanjing, Shandong and Jiangsu respectively; established a production, R&D logistics bases in Beijing, Shanghai, Hunan, Liaoning, Guangdong, Jiangsu, Shandong, Yunnan, Hebei, Shaanxi, Anhui, Zhejiang, Henan, Hubei, Jiangxi, Guangxi, etc., which had greatly increased the local industrial aggregate economic volume, promoted the employment of local residents, and played a positive role in promoting the optimization of industrial structure and enriching industrial categories.



## (III) Campus Recruitment

In 2020, Oriental Yuhong carried out promotion and publicity activities in 80 colleges and universities across the country, organized a total of 62 campus talks, participated in 7 two-way selection meetings, and accepted 128 current year's graduates.

## V. Remuneration and Incentives

The Company boasts a perfect compensation incentive system. Based on its post value evaluation and in accordance with the principle of remuneration level marketization, the Company defines its salary according to post. Once the post changes, the remuneration will adjust accordingly. It gives priority to efficiency, renders remuneration according to performance, takes count of justice, and at the same time, conducts regular salary review and adjustment, gradually improves all forms of medium and long-term incentives, strives to provide employees with stable, attractive, and relatively more perfect compensation system, and enjoys together the achievement of enterprise development, supports the grass-roots staff, and commits to training industry-leading technical staff and building a first-class team of craftsmen.

The Company has implemented equity incentive policy for middle and senior management, core business and technical personnel. The Company has launched three phases of equity incentives to qualified recipients, with a total of about 3,200 incentive recipients in the three phases, and conducted two equity unlocking and two buyback cancellation in 2020 to return staff with true identity, true belief and true struggle.

Furthermore, Oriental Yuhong has improved social insurance and housing provident fund systems. It paid insurances for employees' endowment, medical treatment, unemployment, employment injury, maternity and housing provident fund, with 100 percent coverage for all the employees. Meanwhile, the Company specially bought accident insurance for employees who went on business trip throughout the



year. It also bought accident and commercial insurance for employees who went on business trip of training or group activity, making employees work comfortably and feel free to go on business trip.

On the basis of the annual assessment for excellent and advanced units and individual employees, the Company supplemented the category of the Figures Moving Yuhong, according to which, advanced collectives and individuals with outstanding performance and fast growth in terms of engineering, technology, management, function, and sales etc., would be commended, and the awards were conferred especially to those front-line personnel fighting at the grass-roots level and ordinary sales personnel who had always set new records.

## VI. Welfare Benefits and Care

Oriental Yuhong treats employees as family members, committed to building four welfare care systems, included life & assistance, health & safety, holiday & care welfare, team building & vocation. For each significant day, Oriental Yuhong always tries to achieve "love, no miss". On staff birthday or wedding day, the Company sends its birthday gift, new wedding gift money at the earliest time possible; during the Spring Festival every year, the Company also, with full gratitude, extends its sincere greetings and New Year's gift to the parents of employees. The Company rewards the grass-roots staff whose children are admitted to top universities.

## VII. Health and Safety

# (I) Occupational Health and Safety System

The Company puts the health and safety of employees in the first place, establishes a perfect occupational health and safety management system, forms a systematic safety operation and operating procedures, sets up a departmental safety officer responsibility system, carries out regular identification and inspection of danger sources in workshops, laboratories and other places, organizes regular occupational disease medical examination activities for employees working in the



relevant areas, establishes employee occupational health management files, and creates better work environment and conditions for employee health.

The Company arranges regular medical check-ups for all employees every year, and designs various medical check-up programs according to various perspectives such as gender, age, nature of work and medical history, and has invested a total of RMB710,000 in medical check-ups for employees in 2020.

### (II) Labor Protection

The Company has built a standardized labor protection system, equipped with perfect labor protection supplies and safe operating tools, and regularly conducts practical and theoretical training to help them master the standardized operating procedures, the correct use of protective equipment and personal labor protection supplies to enhance the self-protection skills of employees.

In addition, the Company also focuses on creating a safe culture and a safe working environment. The Company has set up occupational health and safety warning signs at production sites. The Company carried out regular testing of dust, noise, toxins and other occupational hazards, and commissioned qualified occupational health services to conduct annual health monitoring of occupational hazard jobs. The Company has timely upgraded the dust, toxic and noise protection facilities and eliminated outdated processes and technologies to improve the working environment in the workplace.

The Company strictly followed the national regulations to give subsidies to prevent heat stroke, and regularly distributed heat stroke medication and drinks during the high temperature season. In severe cold and heavy foggy weather, the Company promptly adjusted the working hours and content to protect the safety and health of employees in special environments.

**Example** In the face of the pandemic in 2020, there was no time to delay in strengthening labor protection in company. Oriental Yuhong and subsidiaries and



divisions cooperated with and complied with local government regulations and requirements, planning office systems reasonably for the current stage, and adopting the form of staggered office arrival + home office to promote the resumption of work and production in a scientific and orderly manner. The Company took measures such as disinfection of all areas, protection of protective equipment, strict verification of entering the workplace, and tips on pandemic protection to ensure a safe work environment for employees.

### (III) Prevention and Control of Occupational Diseases

The Company fully implemented the Law of the People's Republic of China on Prevention and Control of Occupational Diseases, focused on occupational health and safety supervision of employees and prevention and control of occupational disease, and continuously improved construction working conditions and prevented, controlled and eliminated occupational disease hazards. The Company gave occupational health care medical check-ups to employees engaged in work with occupational hazards before starting work, during work and before leaving work, and the results were all entered into the staff files timely and accurately. The Company timely followed up and reviewed the historically diagnosed occupational cases, and promptly organized patients who require hospitalization after the treatment in specialist hospitals, relieving employees of their worries. For employees in special jobs, a health care allowance and recuperation system was in place as required, and the incidence of occupational diseases among employees has been consistently reduced.

### (IV) Psychological Health

The Company incorporated mental health management into routine management, paid attention to the psychological changes of employees, took the initiative to grasp the psychological state of different employees in different periods, correctly allocated and transformed manpower to help employees to solve the physical and mental



pressure caused by the fierce market competition and relieve their anxiety and promote their mental health.

In order to reduce or eliminate factors that lead to occupational mental health problems and establish a positive and healthy work environment, the Company improved the physical environment at work on the one hand, and improved the soft environment at work through organizational changes, leadership training, team building, job rotation and employee career planning on the other hand.

### VIII. Development and Training

In line with the concept of harmonious symbiosis and common development between employees and the Company, Oriental Yuhong provided employees with opportunities to further enhance their skills and knowledge from the perspective of overall development, promoting the development of the Company with personal development of employees and enhancing the personal value of employees with corporate development, and building an inter training system with rich contents including new employee, management staff, professional sequence and partner, etc. In addition, the Company set up the Yuhong College to increase the training and qualification of industrial workers. The Company also works with external suppliers to continuously optimize the training enjoyment platform, enrich the training tools and increase the training content to promote the mutual growth of employees and the Company.

With the principle of "job-competence" as the centerpiece, Oriental Yuhong planed learning development paths for each key talent in the Company from a career management perspective, designing personalized training courses for different employees in the Company and providing a fast track to career development for employees.



Yuhong College	Yuhong Vocational Technical Institute			Yuhong Business School	
	Special certificat	Leadership customized development			
HR department	Professional sequence			Essential capability	
	Lean production series	Project management series		Product knowledge series	
		Technical capability series	Marketing series	Professional capability series	
	Innovation R&D series			General capability series	

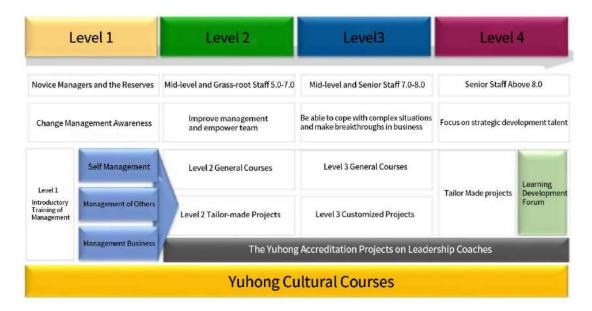
### (I) Training

To ensure the organized and effective progress of learning development, the Company established a three-dimensional system architecture consisting of training mechanism management system, training resources management system and training operation management system. In 2020, the Company endeavored to optimize the academic credit system and the quality learning development project, improve the efficiency of the ELB platform as well as the form and content of training, provide better learning experience for the staff and strengthen the training's role of promoting organizational revolution and business innovation.

Adhering to the philosophy of "eliminating the false and saving the true", in 2020, Oriental Yuhong fully improved the organizational structure, operation process and management system of training and made further efforts to define the strategic positioning, development strategy, resource building goals and operation guidelines. The Company made a comprehensive review of the curriculum system, the teacher system, the evaluation system and the knowledge management system, gave more



support to the development of the leadership project and encouraged the commercialization of mature projects based on industries and markets outside the Company.



### Panorama of leadership development

Institutional guarantee: the Company has established the points-based learning system, the staff tutorial system, honored good students and good teachers on a regular basis, encouraged staff to attend the accreditation of professional qualifications and senor and mid-level professional titles. Employees could enjoy benefits like paid leave and reimbursement of accreditation cost during preparation. Employees who were active to learn and good at learning were preferred candidates for promotion and were rewarded.

**Digital learning:** employees could carry out outward training, theoretical training and practice drills in flexible and multiple ways such as G Live Streaming, E-learning, Lexiang Live Streaming and off-line case sharing and discussions.

**Professional teachers:** the Company has established strategic partnership with associations of experts in waterproof industry and higher education institutions and invited experts and prominent teachers to give lectures regularly. Meanwhile, the



Company has established an internal system of lecturer training and accreditation so that abundant good teachers were pooled.

Customized courses: the Company provided targeted training from various perspectives based on the position sequence, ranks and different professional positions.

### Differentiated training for different staff

Trainee	Forms of Training	Training Objectives	
Management Cadres	Lectures by internal and external tutors; extra-curriculum practice	To improve staff's corporate culture identity, leadership and expand their horizons	
non-manageme nt staff	On-the-job training; sharing of internal lecturers	To improve staff's corporate culture identity and professional skills	
Partners	Lectures of internal and internal and external lecturers	To learn about corporate culture identity, product knowledge, construction crafts and process etc.	

### (II) Career Planning and Development

In 2020, the Company introduced professional consultancy institutions, established and optimized the qualification system based on the Group's development strategy. Five classifications and 26 sub sequences were set as guidelines for staff's vertical professional development, horizontal comprehensive development, professional routes and management of different career paths.

According to the evaluation method in the professional behavior evaluation system combining the qualification standard, the professional development plan and the competence model, employees were encouraged to do job rotation and get promotion by normal development, internal competition or accelerated promotion.

The Company strengthened performance feedback and improvement by having face-to-face conversation with staff each quarter and taking talent cultivation as part of department manager's main responsibilities. The Company also introduced a series



of testing and evaluation tools to carry out evaluations based on sub sequences, positions and to promote professional development with the help of 360 Degrees Evaluation and other off-line evaluation tools.

The business sequence, whose professional development path used to be management, now has a multichannel development mechanism aside from management so that different kinds of talents are provided with development paths.

### (III) Occupational Skill Training

Oriental Yuhong established the Yuhong College, with internal staff training as its focus, to carry out training in marketing, cadre and project management. Six branches of Oriental Yuhong Vocational Technical Institute, the vocational skill training base of construction waterproofing industry were set up in Shanghai, Guangzhou, Kunming, Sichuan and other places to carry out skill training for waterproofing workers. In September 2020, the Institute was approved of occupational skill level certification qualification by the Beijing Occupational Skill Level Evaluation and Management Center. It could grant occupational skill certifications of 14 professions such as waterproofing workers, decorators, coating workers, salesmen, waterproof coil workers for corporate employees, partners, construction workers. The Yuhong College continued to promote the integration of industry and education by setting up Oriental Yuhong Mater Studio in Guangzhou City Construction College, Urban Vocational College of Sichuan, Xvzhou College of Industrial Technology, Jiangsu Urban and Rural Construction College to cultivate skilled talents in universities together with enterprises.

In 2020, the Yuhong College granted certificates to a total of 4126 skilled workers including waterproofing workers, decorators, waterproof coil workers through its national training. Meanwhile, it suspended classes instead of study during the pandemic by setting up online classes and Tiktok live broadcast rooms. 162 hours



of online technology classes on 32 kinds of subjects were recorded and went online. 289 times of live streaming were done on Tiktok, attracting more than 110,000 students to watch.

**Example** Yuhong College selected and cultivated good students to participate in various professional skill contests. In 2020, students was selected to take part in two national professional skill contests: waterproofing contest and tiling contest, wining four champions and 1second place. All of the five winners were awarded as the National Technical Experts.

### (IV) Internal Training for Employees

The Business School of Oriental Yuhong, established in 2020, valued the knowledge accumulation inside the Company and the cultivation and development of personnel based on levels and sequences.

The internal training which included 104 novice trainings of 836 hours with 5,658 people attended and 24 leadership training of 455 hours covering 1,179 people, totaled 3,862 times, 4,470.25hours and covered 63,429 people. In this way, the internal knowledge acquisition system of Oriental Yuhong was built.





# Chapter VI Benign Interaction between Enterprise and Society

The chapter involves community responsibility with regard to targeted poverty alleviation, charity, love transmission, voluntary service and etc.

Responsibilities construct the future, persistence passes on hope. As the advocate for sustainable development of the industry and the performer of responsibilities, Oriental Yuhong has always fulfilled the mission of "creating an enduring and safe environment for the humankind and the society", and promoted the virtuous interaction between businesses and the society so as to build itself into a first-rank enterprise that is highly responsible for the society.

### I. Targeted Poverty Alleviation

The Company made all efforts to contribute to building a harmonious living environment. It enhanced measures to ensure organizations and services and strengthened the enforcement of policies, set up a targeted poverty alleviation group and the support team and followed up the practical implementation. The supervisory departments supervised implementation in final stages. Therefore, different levels of the Company were coordinated, the planning and measures of targeted poverty alleviation were fully progressed and implemented. As the private enterprise leading the promotion of social responsibility and the disclosing social responsibility, Oriental Yuhong fully took the corporate social responsibility. On the one hand, the Company incorporated targeted poverty alleviation into its strategic development, improved the building of corporate culture, regulated its ethical behaviors and pro-actively carried out specific activities to support poverty alleviation. On the other hand, the Company called for all walks of the society to support poverty alleviation and do what they can do to create a sustainable and sound living environment. Thanks to outstanding fulfillment of corporate social responsibility over past years, the Company was named



as the 2020 Model of Targeted Poverty Alleviation at the Third Social Responsibility Conference.

Example Oriental Yuhong took actions to provide paired assistance for poverty alleviation.

Through stable and organized operation that ensured the Company's sustainable development, stabilized employment and improved income Oriental Yuhong formed a sound situation conducive to giving full play to corporate advantages and promoting poverty alleviation at the same time. Meanwhile, the Company focused on assistance for targeted poor areas. It conducted the charity fund activity of "fulfilling corporate responsibility, supporting targeted poverty alleviation" in areas such as Fengnan Town, Liushuhuan Town, Heiyanzi Town in Tangshan, Liuzhai Village at the Xinxiyao Bay in Xvzhou and Qianyang Town in Shanxi Province, promoted paired assistance work named "Assistance from One Hundred Enterprises for One Hundred Villages", actively helped local poverty-stricken households with registration so as to realize targeted poverty alleviation.



### II. Support for Public Welfare.

According to its development direction and strategic focus, Oriental Yuhong took industrial development, education, environmental protection and community construction as priorities of support for public welfare. Oriental Yuhong was a strong advocate for and participant of public welfare. It took business as the field of support



for public welfare and made it a routine. The Company has organized the Voluntary Blood Donation Week for ten years in a row. Every November, it organized voluntary blood donation and public welfare activities of "serving the people and refusing the leakage" in successive years to provide leakage repair services for vulnerable groups and to support environmental protection. The Company and its employees jointly contribute to the social public welfare.

## Example 1 Oriental Yuhong broadcast positive energy and popularized the brand.

In March, 2020, Oriental Yuhong participated the activity of "Billions of Commercials: the Spring Campaign" held by Xinchao Media and People's Daily Digital Communication, broadcast the commercials in 18 cities across the nation to spread positive energy. In this joint public campaign, Oriental Yuhong, themed on "those with shared purpose win, those who hang together prosper" spread positive energy and called for the public to weather the trying times together. Oriental Yuhong's public social ads valued at over RMB1.7 million covered mid-level and senior communities in 18 mainstream cities including Beijing, Shanghai, Guangzhou, Shenzhen, Hangzhou, Chengdu, Xi'an, Wuhan, Zhengzhou, Suzhou, Changsha, Kunming, Sanya. These ads placed on more 5,000 units attracted more than ten million views in total and were watched by 3,000 to 1 million people.

### **Example 2 Oriental Yuhong held charity waterproof training lectures**

In response to the industrialization of the country's construction and in order to improve the waterproof design of buildings, on September 27, 2020, Oriental Yuhong held a charity lecture on waterproof training in Kaili, Guizhou Province, which attracted over 400 locals from institutions such as building, construction, supervision, survey, design, inspection, property of projects under construction.

### III. Donation

As an enterprise with social responsibility as its own mission, the Company gave back in terms of education support, environmental protection, culture promotion, social care and so on, took actions to shoulder social responsibility so as to promote



stable and harmonious development of businesses and the society. It incorporated social responsibilities into its development, combined improvement of corporate culture building and promotion of social responsibilities, called for all fields of society to dedicate to social public welfare activities, a sustainable and vicious living environment as well the creation of both corporate values and social values.

## Example 1 Oriental Yuhong set up scholarships to sponsor academic high achievers and poor students.

Ever since 2008, Oriental Yuhong set up "Oriental Yuhong Specialized Scholarship for Beijing University of Chemical Technology", aiming to help aspiring youths from low-income families and students good at both study and moral to finish school and to promote exchanges and cooperation in technology, talents and other aspects between the school and the Company. Each year, about 30 high achievers won this scholarship. Tiandingfeng Holdings Co., Ltd., the subsidiary of Oriental Yuhong donated RMB200,000 for the ninth period scholarship of the Linyi First Middle School. This was the seventh donation since the year "Tiandingfeng Scholarship" was set up to sponsor high achievers and students from low-income families to study hard and motivate good teachers to work hard each year.



Example 2 Oriental Yuhong visited firefighters to promote the most beautiful spirit.



Liu Xiaojun, director of the Yueyang Oriental Yuhong Plant, together with managers of the manufacturing base visited the Yunxi Fire Brigade in Yueyang. They comforted the firefighters in the front line of rescue, brought goods for summer heat and expressed gratitude for fire drills and fire security training and guidance provided by the fire brigade for a long term.



### **Conclusion**

Oriental Yuhong attributes all its business success and progress to the era, the motherland, generous support of customers, and concern and care of society. Gratitude and empathy are the basic characteristics of its corporate culture and principle of CSRs of Oriental Yuhong.

—Li Weiguo, Chairman of Oriental Yuhong

### **Feedback on the Report**

Thank you for reading the sustainability report of Oriental Yuhong. We'd appreciate your opinions and suggestions in order to keep improving our reporting. Please kindly fill in the feedback form. Thank you sincerely!								
Overall comment of the  Report								
Very good ( )	Good ( )	General ( )	Bad()	Very bad ( )				
2. Does the Report comprehence the Company?								
Very good ( )	Good()	General ( )	Bad()	Very bad ( )				
3. Does the Report respond to information?								
Very good ( )	Good()	General ( )	Bad()	Very bad ( )				
4. Is the information disclose complete?								
Very good ( )	Good()	General ( )	Bad()	Very bad ( )				
5. How is the readability of the Report (i.e., logic thread, content design, language, and format)?								
Very good ( )	Good()	General ( )	Bad ( )	Very bad ( )				
6. Is there any information the								
7. What suggestions do you								

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