



2025

Sustainability Report

Promoting the Cohesive sustainability of textile and environmental protection industry.



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A Letter From the CEO: Let Color Shape a Bright Future

Sustainable development has never been a choice for Color Root—it has been our original aspiration, deeply rooted in our DNA since our founding in 2008. 17 years ago, when we embarked on the journey to develop eco-friendly reactive dyes to solve the severe pollution problems in the textile printing & dyeing industry, we carried not only a commercial vision but also a simple belief: chemistry can add color to the world, but it should not burden the planet.

Over the past year, the global economy has undergone profound adjustments, industrial and supply chains have faced restructuring, and climate challenges have become increasingly severe. Against this backdrop, Color Root has steadfastly adhered to the strategy of "From green products to green industrial chain", using technological innovation as a spear and responsibility as a shield to steadily advance on the path of sustainable development.

This report records our efforts and breakthroughs over the year: Continuous progress on the product front—annual R&D investment exceeded RMB 66 million, with 159 patents testifying to our innovation footprint. The launch of Colourzol SP-EC and OS-W series, breakthroughs in revolutionary processes such as "low-temperature water dyeing" and "waterless printing", bring us closer to the dream of "zero discharge". Our products have obtained more than ten international authoritative certifications including bluesign®, ECO PASSPORT, and ZDHC (Level 3)—not only honors but also a solemn commitment to global customers.

Deep cultivation in the circular economy—we invested nearly RMB 100 million to build a solid waste resource utilization project, becoming the first benchmark enterprise in Hubei Province to obtain fly ash resource utilization qualification. Our solid waste recycling rate reached 96.56%, and the water reuse rate increased to 45.8%. We not only realize resource circulation in our own production processes but also provide sustainable waste disposal solutions for many enterprises in the chemical industry. Turning "waste" into "source" is our deepest understanding of "circularity".

Self-imposed pressure on environmental management—compared to the 2022 baseline, waste gas emissions were reduced by 74.75%, wastewater discharge decreased by 21.62%, and the combined photovoltaic and waste heat power generation exceeded 5.5 million kWh. Behind these figures lies the persistent pursuit of "green manufacturing" by Color Root people and an active response to China's "3060" carbon goals.

Yet what makes me even prouder than the data is the sense of responsibility demonstrated by our people. Nearly 70% of our employees come from rural areas. 640 rural families have stable income because of Color Root; more than 20 veterans have found new career stages here; a female senior executive was awarded the provincial "Women's Meritorious Pacemaker" title, proving that ability and contribution are never defined by gender at Color Root. We deeply understand that the value of an enterprise lies not only in the profit it creates, but also in how many people it empowers and how many families it warms.

We continue to organize the "Protecting the Mother River" public welfare activities, enabling employees to contribute to the ecological protection of the Yangtze River and Han River; we have established industry-university-research bases with universities, set up the "Color Root Scholarship", and cultivate more high-quality talents for the industry.

Looking ahead, challenges stay severe. Textile and apparel low-carbon transition has a long way; chemical green revolution is emerging. From proposing sustainability in 2024 to making it our long-term strategy in 2025, we pioneered a full-chain traceable closed-loop from waste to disposal in our industry.

The upcoming Ecological Environment Code guides our green transition and strengthens our mission: traceable resources, verifiable steps; more R&D, circular economy, employee care, social return. This report is our annual answer to clients, partners, and society, and a self-review. Each page holds our sweat and wisdom; every commitment will be tested by practice.

Finally, I would like to thank every customer who trusts Color Root—your trust gives us the impetus to move forward; every hardworking employee—your perseverance makes dreams a reality; all partners and friends—your support enables us to go steady and far. Let's walk hand in hand, let color shape a bright future.



Joseph Liu
CEO of Color Root

A handwritten signature in black ink, appearing to be 'Liu Jia' (Liu Jia) in Chinese characters, written in a stylized, cursive manner.

ABOUT COLOR ROOT



01

Company profile

Color Root is a Chinese company specializing in textile solutions and industrial waste management. As a leading manufacturer of reactive dyes, we are the only domestic producer of high-fixation eco-friendly reactive dyes with full backward integration. With over 30,000 tonnes annual output and sales for five consecutive years, we rank top in the reactive dye segment. In the fields of water treatment and waste management, we have designed and implemented a series of innovative and effective solutions, and operate the largest solid and hazardous waste landfill disposal center in China.

Founded: 2008



Annual production capacity of dyestuff is over **50,000** tons.



Annual production capacity of basic chemical raw materials is over **580,000** tons.



Annual production capacity of intermediates is over **57,000** tons



Total approved disposal capacity of industrial solid waste (including hazardous waste) is over **14** million cubic meters



Capacity of by-products and resource utilization products is over **1million** tons.

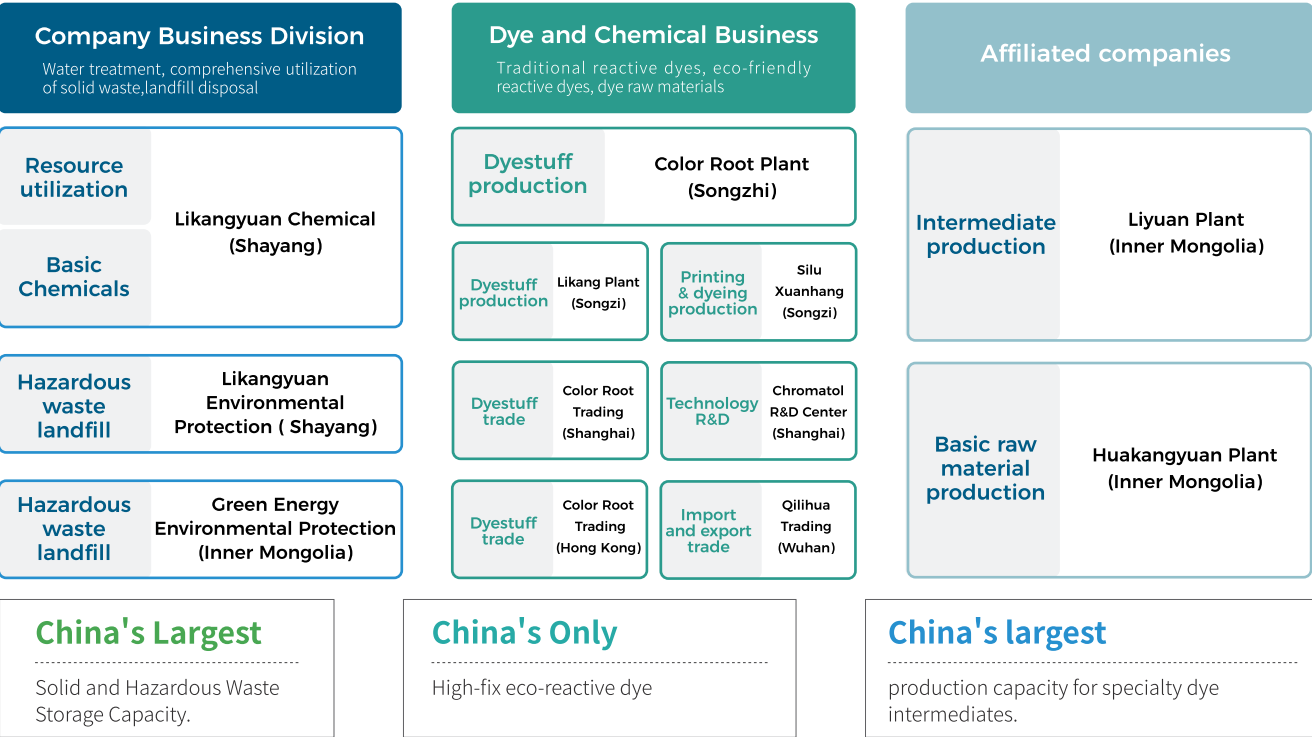


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Business Structure

We have built a whole industrial chain covering basic chemical raw materials, chemical intermediates, dye synthesis, and solid/hazardous waste disposal. To strengthen our leading position in eco-friendly textile chemicals and environmental technologies, we established the Chromatol Eco-Chemical R&D Center in Shanghai and built three production bases in Songzi (Hubei), Shayang (Hubei), and Alxa (Inner Mongolia). The company has been recognized as the second batch of national-level specialized and innovative "Little Giant" enterprise, ranked 74th among Hubei Top 100 Private Manufacturing Enterprises, and designated as a "Golden Seed" company in the province's pool of potential listed enterprises.

Company Business Division



Development Strategy

We always adhere to the strategy of "From green products to green industrial chain", persist in R&D innovation, comprehensively promote eco-friendly reactive dyes, and maintain a leading position in this field. We continue to promote industrial integration, link the upstream and downstream of the textile printing & dyeing chain, facilitate cross-segment resource complementarity between chemical and environmental businesses, and build core competitiveness in differentiated areas. We remain embracing the concept of sustainability, actively respond to the carbon neutral strategy, promote sustainable products, resource recycling, ecological protection, human rights assurance, and commit to fulfilling corporate social responsibility.

From green products to green industry chain

Strengthening the synergy between solid waste treatment and production link

Reverse logistics and recycling system:
Establish reverse logistics system in the printing & dyeing plant, dyestuff plant and raw material plant, and send the recyclable wastes generated in the production process back to the comprehensive utilization link of solid waste in time to reduce waste.

Production process improvement

Upgrading of printing, dyeing and dyestuff technology:
Adopt more Eco-friendly and efficient printing, dyeing and dyestuff technology to reduce pollutant emissions and improve product quality.

Synergy in the whole industry chain

Whole industry chain support:
Adopting the synergistic development strategy of the whole industry chain of chemical engineering → printing & dyeing → environmental protection, and the whole industry chain setup from the development of dyestuff, production of intermediates and dyestuff, to the research of Eco-friendly printing & dyeing process and equipment, and finally to the Eco-friendly resource utilization, enabling Color Root to obtain more synergistic effect between business segments.

Sales Network

With Shanghai as a hub, we have established the Chromatol Eco-Chemical R&D Center, radiating R&D, technical service and sales centers globally. Chromatol focuses on R&D, production, sales of textile chemicals and application technology, adopting characteristic and differentiated product strategies to provide customers with premium products and the best dyeing solutions, improving their market competitiveness and economic benefits.

With a strong R&D and technical service team, we develop high-end textile dyes and auxiliaries that are green, energy-saving, and emission-reducing, independently innovating dye structures, multi-active groups and chromophores. Our products have been certified by European environmental agencies, widely recognized by domestic and international users, with high market influence and share.

During the reporting period,
Our products are exported to five continents

30+

countries and regions, ranking the forefront in the global reactive dyes industry.



Historic Evolution

The founding of Color Root dates back to 2008. At that time, to solve the problem of large amounts of wastewater in the printing & dyeing industry, the founder formed a team, invested funds, and developed the first generation of eco-friendly reactive dyes, which significantly improved dyeing efficiency and reduced wastewater discharge, aiming to promote sustainable development of the industry from the source.

- 2008 Hubei Color Root Technology Co., Ltd. incorporated. - 2009 Built China's leading high-fix eco-reactive dye production base with complete intermediate supporting. - 2010 High-fix eco-reactive dye project commenced production. - 2011 Reactive dye capacity expanded to 20,000 tons. Color Root established 2008	- 2012 Undertook the National Industrial Revitalization Project for fine chemical intermediates of high-fix eco-reactive dye. - 2013 Undertook the National Special Project for International Science and Technology Cooperation on collaborative research for Multi-functional reactive dyes and dyeing technologies. - 2013 Undertook the Hubei Provincial Major Science and Technology Innovation Special Project on Multi-functional reactive dyes and low-salt, low-alkali dyeing technologies. Undertaking national-level R&D projects 2012	- 2014 Established Inner Mongolia Liyuan Technology Co., Ltd. and completed the Inner Mongolia Intermediates Production Base. - 2014 FL Multi-functional Reactive Dyes with high lightfastness and high perspiration and lightfastness were included in the National Key New Product Program Project List. Established a production base in Inner Mongolia 2014	- 2017 Reactive dyes sales exceeded 30,000 tons, entering top tier of domestic dye industry. - 2018 CHROMA (Shanghai) Chem-Tech Co., Ltd. was established to create high-end brand for global dye market. Launched a new eco-friendly brand 2018	- 2019 Completed the construction of the Likangyuan Chemical Raw Materials Production Base and established Hubei Likangyuan Chemical Co., Ltd. - 2023 Obtained 5-year hazardous waste landfill operation license from Hubei Department of Ecology and Environment. - 2024 Invested in Phase I of 350,000 tons/year waste salt resource utilization project. - 2025 Obtained 1-year hazardous waste resource utilization operation license March 2026 License renewed to 5-year term. - In March 2026, the company's "Hazardous Waste Management License" for the resource recovery of hazardous waste, which had a one-year validity period, was renewed for a five-year term. Expanded into the field of eco-friendly chemicals 2019 2025
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Corporate Culture

In 2025, we launched a company-wide initiative to build brand consensus across the entire value chain. Through extensive solicitation of ideas and democratic voting, we ultimately established "Green future through better chemistry" as Color Root's shared pledge. This marks a significant milestone, as the concept of sustainable development has evolved from a corporate strategy into a deeply held belief and shared commitment to action among every employee and partner.

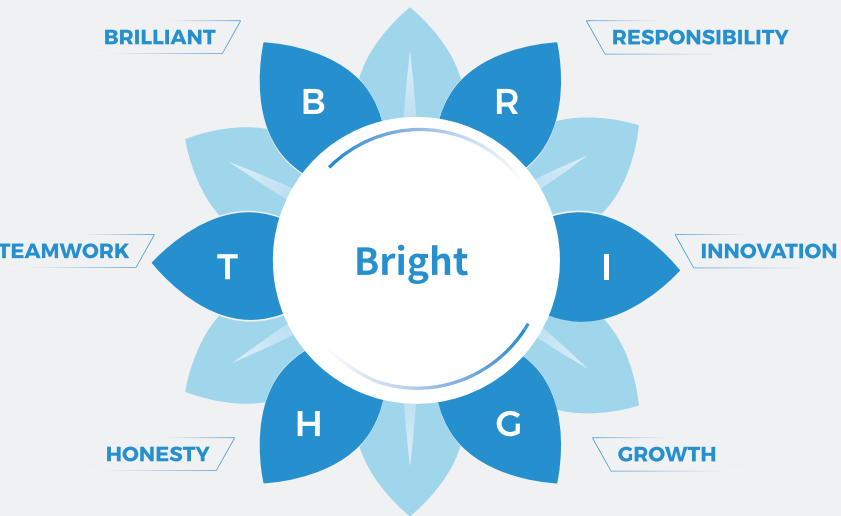
Vision

Mission

Become a pioneer enterprise with long-term trust and sustainable development.

Lead the dyestuff chemistry industry with technological innovation, promote sustainable development with conceptual innovation, and contribute to a win-win situation of the value chain with service innovation.

Values



Honors and Qualifications

Enterprise Honors

- State-level Specialized and New Key "Little Giant" Enterprise
- High-tech Enterprise
- Hubei Top 100 Private Enterprises in Manufacturing
- Hubei Engineering Research Center for Reactive Dyes
- 17th Contract and Credit Keeping Enterprise of Hubei Province in 2024
- Hubei Province's Annual Advanced-Level Smart Factory
- 2024 Hubei Province Manufacturing Single-Champion Enterprise
- 2025 Provincial-Level Green Manufacturing Factory
- 2025 Provincial-Level Leading Enterprise in Integrated Domestic and International Trade
- National Four-Star Customer Satisfaction Enterprise
- AA-Rated Enterprise for Market Quality and Credit

International Environmental Protection Certification

-  **203** pcs
Products passed bluesign® System Certification
Officially became bluesign's partner in **2016**.
-  **310** pcs
Products obtained ZDHC MRSL V3.1 Compliance Certification
Joined ZDHC in **2017** and became a ZDHC Contractor.
-  **242** pcs
Products passed ECO PASSPORT Certification
First obtained ECO PASSPORT certificate in **2012**.

-  **137** pcs
Products passed Global Organic Textile Standard (GOTS) Certification
Officially obtained GOTS 7.0 certificate in **2023**.
-  **137** pcs
Successfully obtained SYRICIT Green Dyes Product Certification in **2023**.
-  **13** consecutive years
Since **2012**, it has passed Green Leaf Certification for **13** consecutive years.

-  **120** pcs
Products were included in the list, all of which have been rated as grade **A**.
-  Started to register REACH regulation in **2013**.
-  Started to register KKDIK regulation in **2013**.

Green Advocate League



Management System Certification



- ISO9001 Quality Management System Certification.
- ISO14001 Environmental Management System Certification.
- ISO45001 Occupational Health and Safety Management System Certification.
- ISO50001 Energy Management System Certification.
- GB/T23001-2017 Integration of Industrialization and Industrialization Management System Certification.

A Glance of 2025

Highlights in Product Innovation and Service Quality

Industry/Association Membership Annual R&D Expenditures patents held

12 RMB **66.34** million **159**

Product pass rate

98.45%

Awarded the title of "National Four-Star Enterprise for Customer Satisfaction"

Highlights of Environmental Management Performance

Total environmental management investment Electricity saved via new efficiency measures Solid waste recycling rate

RMB **47,640,600** **178.17** MWh **96.56%**

Water saved via conservation measures Recycling rate of finished product packaging materials

229,028 tons **97.63%**

Highlights of Sustainable Production and Supply Chain Performance

100% **100%** **100%**

of our products and supply chain materials have passed testing for harmful substances such as aromatic amines.

of our products have achieved Level 3 certification under the Zero Discharge of Hazardous Chemicals (ZDHC) program.

of our new suppliers have undergone an environmental impact assessment.

Highlights of Social Responsibility Performance

Employee satisfaction reached Incidents of discrimination, forced labor, or child labor Work-related fatalities

97% **0** **0**

CO-CREATE SUSTAINABLE VALUE

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Co-create Sustainable Value



Color Root knows very well the importance of sustainable development, and actively responds to global sustainability initiatives. Taking the United Nations Sustainable Development Goals (SDGs) as a strategic guideline, it has constructed a sustainable value management framework centered on six major issues: Sustainable Products, Circular Economy Development, Energy and Resource Saving, Health and Safety Assurance, Industry Co-Creation, and Social Co-Prosperity. This comprehensive and forward-looking framework aims to promote the green transformation and harmonious coexistence between us and the society and economy through practices that emphasize both innovation and responsibility.

Sustainable value management

Sustainable products

Develop high-performance and Eco-friendly dyestuff that are environmentally friendly, safe and harmless throughout their life cycle.



Health and safety guarantee

Continuously promote the safety and health management system, improve the emergency management mechanism, enhance the level of intelligence, and ensure the health and safety of employees in the labor process.



Circular economy development

Promote green, low-carbon and circular development, reduce pollutant emissions and improve resource utilization efficiency.



Industry co-creation

Focus on technological innovation, environmental protection and sustainable development, and drive industry exchanges and co-creation to realize sustainable and healthy development.



Energy and resource saving

Focus on the optimization of materials and energy in the whole process of product production, develop green manufacturing technology, minimize resource consumption and reduce greenhouse gas emissions.



Social co-prosperity

Starting from the surrounding community, assume social responsibility and actively participate in social welfare and rural revitalization activities.



2.1

Industry Sustainable Development Challenges

Due to the complexity and length of its upstream supply chain, faces many supplier-related factors affecting product quality and sustainability, e.g., raw material selection, environmental impact of production, labor conditions, supply chain transparency, and product recyclability. These factors deeply affect corporate social responsibility and reputation, as well as consumer trust and loyalty. Therefore, for brands, managing these supplier factors and ensuring the sustainability of the entire industrial chain is key to long-term growth and competitiveness.

Global climate challenges caused by the apparel industry

According to the United Nations Environment Program, the textile and apparel industry accounts for 10 percent of global carbon emissions. It is the second largest source of pollution after the oil industry, and the material production link, including weaving, dyeing and finishing, leads to more than half of the emissions. Forecasts show that by the time the world population grows to 8.5 billion in 2030, the carbon emissions from the apparel and textile industry may exceed those of the oil industry and become the top source of carbon emissions; by 2050, the fashion industry will consume more than 30% of the global carbon budget. Therefore, it is urgent for the textile and apparel industry to make a green and low-carbon transition.

Global water resource challenges caused by the apparel industry

In the front-end industrial chain of the textile and apparel industry, wastewater treatment has become a major challenge because there are more high water consumption industries involved. The wastewater generated by these industries has high salinity, high organic content, high chroma, and abnormal pH values, making it difficult to treat through conventional methods. Together, these factors contribute to the high difficulty of treating the large volumes of wastewater generated in front-end industries, not only increasing the economic burden on enterprises, but also posing greater environmental risks. Therefore, in the pursuit of sustainable development, the clothing brand and apparel industry must pay attention to the issue of wastewater treatment in the front-end industry chain, and take effective technical and management measures to reduce the impact on the environment.



The chemical industry faces similar challenges. These include the selection and extraction of upstream basic raw materials, high energy consumption and high emissions during production, process safety and environmental compliance, supply chain transparency, and the recyclability and degradability of final products. These factors not only have a profound impact on the corporate social responsibility and industry reputation of chemical enterprises, but also directly affect the trust and cooperation stability of downstream customers (such as textiles, electronics, automotive industries) in chemical material suppliers. Therefore, for chemical enterprises, managing these front-end supplier factors and ensuring sustainability from source to full production process is key to achieving compliant operations, reducing environmental risks, and maintaining global market competitiveness.

Global climate challenges caused by the chemical industry

According to the International Energy Agency and authoritative environmental organizations, the chemical industry is one of the industrial sectors with the highest global energy consumption, and its carbon dioxide emissions account for nearly 20% of global industrial carbon emissions. As an upstream source for almost all industrial materials, the chemical industry is not only a producer of plastics, fertilizers, and textile raw materials, but also the third-largest energy-intensive industry after steel and cement. Among them, the production of basic chemicals (such as cracking of olefins and aromatics) and energy-intensive synthesis processes contribute more than 70% of the industry's carbon emissions. Forecasts show that with the advancement of industrialization in emerging economies and the continuous growth in global demand for synthetic materials, without deep decarbonization transformation, the carbon emissions of the chemical industry will increase significantly by 2030, posing severe pressure on the global carbon budget. By 2050, the cumulative emissions of this industry may occupy a significant share of the global carbon budget. Therefore, it is urgent for the chemical industry to transition towards green and low-carbon development.

Global water resource challenges caused by the chemical industry

Throughout the entire production process of the chemical industry, due to the involvement of numerous synthesis, separation, refining, and post-treatment steps, water resource consumption and wastewater treatment become core environmental challenges. Wastewater generated from chemical production is extremely complex, typically characterized by high Chemical Oxygen Demand (COD), high salt content, high ammonia nitrogen concentration, characteristic pollutants (such as heavy metals, refractory organics), and abnormal pH values. These characteristics make it difficult to effectively purify industrial wastewater through conventional municipal sewage treatment processes. These factors together lead to extremely high difficulty and significant cost in treating wastewater in the chemical industry, not only increasing the economic burden and operational risks for enterprises, but also posing a continuous threat to surrounding water environments and ecosystems. Therefore, in the pursuit of sustainable development, chemical companies and the entire industrial chain must pay high attention to wastewater treatment issues at both the front and end of production, actively promote clean production technologies, cascade utilization of water resources, and advanced treatment technologies like membrane separation, and adopt effective technical and management measures to minimize environmental footprint and respond to the global urgent need for water security.

Data shows

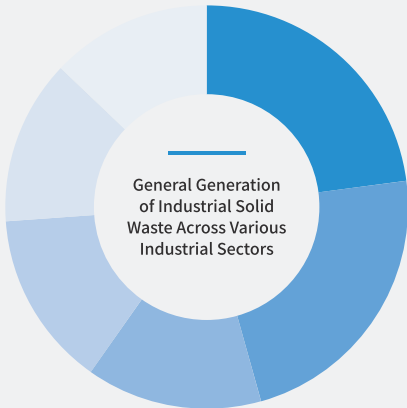
According to the China Ecological and Environmental Statistics Annual Report, the national output of general industrial solid waste was 4.40 billion tons, with 2.65 billion tons comprehensively utilized and 0.80 billion tons disposed of. The top five industries in terms of general industrial solid waste generation were: production and supply of electricity and heat, ferrous metal smelting and rolling, ferrous metal mining and dressing, coal mining and dressing, and non-ferrous metal mining and dressing. The total output of these five industries was 3.39 billion tons, accounting for 77.1% of the national general industrial solid waste output.

The national output of industrial hazardous waste was 119.6 million tons, with 118.16 million tons utilized and disposed of. The top five industries in terms of hazardous waste generation were: manufacture of chemical raw materials and chemical products, processing of petroleum, coal and other fuels, non-ferrous metal smelting and rolling, ferrous metal smelting and rolling, and production and supply of electricity and heat. The total output of these five industries was 84.31 million tons, accounting for 70.5% of the national industrial hazardous waste output.

*The data cited in this report is sourced from the "2024 AnnReport on China's Ecological and Environmental Statistics"



- Other industries 29.5%
- Manufacturing of chemical raw materials and chemical products 18.9%
- Petroleum, coal and other fuel processing 15.6%
- Nonferrous Metal Smelting and Rolling Industry 14.8%
- Ferrous metal smelting and rolling industry 10.7%
- Electricity, Heat Production and Supply 10.5%



- Other industries 22.9%
- Electricity, Heat Production and Supply 22.7%
- Ferrous metal smelting and rolling industry 14.1%
- Ferrous Metal Mining and Beneficiation Industry 14.1%
- Coal Mining and Washing Industry 13.2%
- Nonferrous Metal Mining and Beneficiation Industry 12.9%

Approach to the Challenges

Since its establishment, Color Root has been developing high-performance Eco-friendly dyestuff with low salt and alkali, energy saving and emission reduction, high light and high perspiration fastness, based on the "safer, more Eco-friendly and healthier" principle. Color Root's green reactive dyes innovation not only helps to improve the difficulty in treating printing & dyeing wastewater, but also reduces the energy consumption of the entire printing & dyeing industry and at the same time meets the consumer's demand for healthy, Eco-friendly and safe products. These innovations will drive the entire printing & dyeing industry in a greener, more Eco-friendly direction and realize the sustainable development of the industry.



2.2

Sustainable product

Innovation and R&D are the driving force and source of sustainable development. We are committed to promoting technological innovation and industrial upgrading in the printing & dyeing industry, actively overcoming the key core technologies of the reactive dyes industry, continuously consolidating our technological leadership, accelerating the R&D and iteration of new products, supporting the transformation and upgrading of the reactive dyes industry towards green and low-carbon, and enabling the sustainable development of the high-end dyestuff industry.



R&D Philosophy

Color Root has always insisted on integrating the corporate culture of "Innovation, Green, Health and Efficiency" into our product concepts, taking into full account the potential impact on resources and the environment during the life cycle of the products in terms of structural design, selection of raw materials, production, sales, use and disposal etc., and committing itself to providing Eco-friendly, healthy and safe products and services to downstream textile printing & dyeing enterprises as well as end users.

Technology leadership

Taking "Science and Technology, Innovation and Green" as the industry orientation, strengthen R&D capability, tackle the complex technical problems in the industry, and provide innovative technologies for the industry.

High-end development

Aiming at the international advanced level, commit itself to developing high-quality, high value-added and multi-functional printing & dyeing products to enhance the industrial competitiveness.

Green development

Adhere to the concept of green development, strengthen the R&D and application of energy conservation and emission reduction and environmental protection technologies, and promote the green and sustainable development of the printing & dyeing industry.



Research and Development Field

Innovation is the driving force and support of enterprise development. Since its establishment, Color Root has been practicing the innovation road, and our research and development topics run through all steps of the whole industrial chain: safer and more Eco-friendly dye structures, more low-carbon and energy-saving dyeing methods, more recyclable and efficient raw material production processes, and more energy-saving and durable production and environmental protection disposal equipment... are all the industry challenges that we are constantly overcoming. With the power of continuous innovation, we have promoted the green transformation of global reactive dyes production and dyeing, and opened a new chapter of sustainable development.



Development of new reactive dyes

Develop new reactive dyes with higher dyeing performance (e.g., high fixation rate, high color fastness) and lower environmental pollution (e.g., low wastewater and waste gas emissions), and explore new dye molecular structure and functional group design to improve the functionality of dyes in terms of antibiosis, UV protection, and humidifying and perspiration.



Innovation of Eco-friendly Production Technology

Improve the synthesis methods of dyestuff and their raw materials, reduce energy consumption and material consumption in the production process, decrease the emission of wastewater, waste gas and solid waste, promote cleaner production technologies and circular economy models, and realize the efficient use and recycling of resources.



Green Dyestuff

Develop and promote Eco-friendly dyestuff such as water-based dyestuff and bio-based dyestuff to meet the market demand for green textiles. Strengthen the ecological safety assessment of dyestuff to ensure that the products are harmless to the environment and human body during the use.



Technological Innovation in Eco-friendly Printing & Dyeing

Focus on the research, development and promotion of Eco-friendly and energy-saving printing & dyeing technologies (including waterless dyeing, less water dyeing, loose fiber dyeing, etc.) to provide customers with more efficient and greener printing & dyeing solutions.



R&D on Resource Utilization

Focus on R&D of hazardous waste resource utilization, achieve efficient resource utilization of fly ash and waste salt through proprietary core processes, and provide technical support for hazardous waste reduction, resource recovery and harmless treatment.



R&D Initiatives

We have established a sound R&D initiatives system, clarified the R&D process, and formulated an effective incentive system for R&D personnel to accelerate the transformation of scientific and technological achievements, and to improve the corporate capability of independent innovation as well as the motivation and creativity of R&D personnel.



In 2025
Color Root's
R&D investment amounted to
RMB 66,343,300



R&D innovation Initiatives

Key technology breakthroughs

Increase investment in R&D of "cutthroat" key common technologies with high pollution, high energy consumption and poor color fastness in printing & dyeing industry, break through technical bottlenecks, and improve the conversion rate of scientific and technological achievements and the contribution rate of science and technology.



Innovation system construction

Build a closely integrated collaborative innovation mechanism for Industry-University-Research to promote the organic connection and collaborative innovation of upstream and downstream industries.



Intelligent reconstruction

Accelerate the application of digital, networked and intelligent technologies in printing & dyeing industry, and improve production efficiency and product quality.

Achievements in scientific research

In 2025, Color Root's "Reactive Yellow FL-2RN" series products were included in the "Hubei Province Recommendation Catalogue of Innovative Product Application Demonstration of 2025". In 2024, the company's "Reactive Blue FL-RN" series products were included in the list of "Hubei Boutique" of 2024; and the "Reactive Blue FL-RN" product was recognized as "Hubei Boutique".

By the end of 2025

Total number of patents held by Color Root

159

Including invention patents

63

New patents granted this year

5

Invention patents under examination

16

In addition, Color Root has obtained

The identification of High-tech Enterprise, and the identification of State-level Specialized and New Key "Little Giant" Enterprise.

Awarded with

Hubei Province Enterprise Technology Center
Hubei Engineering Research Center for Reactive Dyes.

Innovative Dyestuff

The Eco-friendly reactive dyes we have developed have significant environmental attributes and can bring significant environmental benefits to the industry chain compared to traditional dyestuff.

COLOURZOL® SP-EC

COLOURZOL® SP-EC is an easy-washing reactive dye developed by the company, with high solubility and dyeing enhancement, as well as ultra-high washing fastness, outstanding multi-fiber staining performance, almost reaching Level 4; no matter dark or medium dark colors, it can achieve the washing fastness requirements without the need for fixation finishing. Currently there is no similar economical dye combination in the market, and the dyeing cost is basically the same compared to conventional reactive dyes.

COLOURZOL® EC

COLOURZOL® EC is an all-around economical and affordable tri-color reactive dye, suitable for printing and dyeing cellulose fibers in light, medium and deep shades. The dye has good compatibility, specifically addressing the stability and leveling issues of market-sensitive colors, and has a wider range of color applications. This dye combination can help brands achieve higher economic returns.

Improvement of fixation rate



Eco-friendly reactive dyes have higher fixation rate compared to traditional reactive dyes. The new structure of reactive dyes makes the fixation rate of Eco-friendly reactive dyes in the dyeing process increase by more than 10%.



Improvement of dyeing efficiency

The new structure of reactive dyes with higher fixation rate means that less dyestuff is wasted during the dyeing process, thus improving dyeing efficiency. This saves customers more than 30% in dye consumption.



Reduction of wastewater discharge

Due to the high fixation rate of Eco-friendly reactive dyes and the reduced use of chemical additives, the amount of wastewater generated during the dyeing process is reduced and the concentration of pollutants in the wastewater is lowered. Our products can reduce the chromaticity of wastewater by more than 50%, the total COD value of dyeing wastewater can be reduced by about 50%, and the amount of dyeing wastewater discharged can be reduced by 40%.



Reduction of chemical additives

The traditional dyeing process requires the large amounts of salt and other chemical additives to promote dyes adsorption and fixation. Eco-friendly reactive dyes, such as salt-free dyeing technology, can reduce or eliminate the use of these chemical additives. It can save the use of salt and alkali up to 70% or more.



Improvement of levelling of dyeing

The use of Eco-friendly reactive dyes improves fabric levelling of dyeing and reduces color differences, thus improving product quality and reducing rework and scrap due to color differences. Our dyestuff have excellent dyeing compatibility, leveling property and dyeing reproducibility, with a high success rate of dyeing, which can reduce the dyeing cost by 30% for customers.



Energy saving and water reduction

The application of Eco-friendly reactive dyes can significantly reduce water and energy consumption in the dyeing process. Our products adopt medium-low temperature dyeing, which can significantly shorten the heating process and processing time. While saving energy, it can improve the production efficiency of our customers by about 25%, save 20% in terms of energy consumption, and save about 40% in terms of water resources during the whole dyeing process.

Environmentally Friendly Processes

In addition to innovative research and development in new Eco-friendly dyestuff, we are actively exploring more environmentally-friendly, water-saving and energy-saving dyeing process technologies to promote the green transformation of the industry.

➤ Eco-friendly Water-saving Dyeing System Based on Thin Film Evaporation

The water-saving dyeing system we developed utilizes an original constant temperature water circulation system equipment, combines the advantages of new Eco-friendly reactive dyes with low-temperature printing & dyeing, high fixation rate, etc., enables cotton, yarn and other fabrics to be dyed in a system at 60°C, eliminating the need for heat exchange of water during the entire process and greatly reducing the consumption of energy. We will collect and treat all dyeing and washing process wastewater through the water treatment equipment, and more than 90% of it can be reused as recycled water back to the dyeing and washing process. The water-saving percentage is more than 95%, the energy conservation rate is more than 90%, and furthermore, at least 1/3 of the dyeing time can be saved. At present, this set of equipment and technology is being promoted in Japan and Southeast Asia, and attracts high attention from customers.

➤ Industrial Waste Salt Resource Utilization Process

Based on years of experience in recycling self-produced waste salt, we have innovated the process, using advanced domestic thermal desorption technology to upgrade the original process and facilities, successfully overcoming the technical challenge of removing organic impurities from saline hazardous waste; combined with the cascade crystallization process for inorganic salt production, the project has achieved efficient conversion from hazardous waste to products. This process has been applied to several waste salt resource utilization projects within Color Root and has been widely adopted.

➤ Development of Cationic Modified Cellulose Fiber Dyeing Technology – "Low-Temperature Water Dyeing"

We have been exploring and developing clean dyeing technology with "zero sewage discharge", "no chemical addition" and "low temperature fixation". By cationic modified treatment of the loose fiber, we can dye it without adding salt or alkali and dyeing and fixation can be carried out at 40°C. Compared with traditional dyeing, the dyeing residue is colorless or low in chromaticity, and the dyeing wastewater can be recycled. After dyeing is completed, the dyeing residue is collected intensively, the dyeing wastewater is recycled using a low-temperature thin-film evaporation treatment system, and "zero discharge" of dyeing wastewater is truly achieved. This technology has been developed since 2019, and has made great experimental progress in cotton fiber and its blend dyeing and cheese dyeing, with the process still being further improved and awaiting wider promotion and application.

➤ Development of New Technology for Spraying Instead of Dyeing – "Waterless Printing & Dyeing System"

In order to realize "zero" pollution, "trace" carbon emission and "zero" chemical addition, we are independently researching and developing cationic modifier, and by cationizing textile fabrics and adopting digital inkjet technology, printing reactive dyes onto the fabrics. The reactive dyes are fixed to the fibers at room temperature, thus eliminating the need for drying and washing processes and achieving the dyeing effect of traditional printing. Compared with traditional printing, this technology does not need to add any thickening agent, urea and alkali when preparing printing paste, so as to achieve the real no ammonia nitrogen addition, no salt and no alkali pure green Eco-friendly printing system. In terms of saving energy and water resources, the advantages are more prominent, and there is no need for high temperature drying and vaporization of printed products, and no need for low-temperature washing and high-temperature soaping; in the pre-treatment of printed fabrics and compared to the traditional digital inkjet printing production process, the pre-treatment process of fabrics is decreased, so that there is no chemical additives and no discharge of Eco-friendly wastewater discharges, saving a large amount of water resources; it is the real zero sewage discharge system.

Dyestuff Health and Safety

Health is a topic we have always been concerned about, and the creation of the beauty of color should not be at the expense of health. Dyestuff, as the source of color, is the foundation of a healthy color life. We integrate industrial resources, control quality from the source, and provide textile manufacturers with green and healthy commitment support through the output of higher quality and greener products.

Higher Dyestuff Standards than the Industry

Our dyestuff follow domestic & international and industry-related safety standards, and we ensure the reliability of our products with internal requirements that exceed the standards to protect the safety of consumers. We adhere to REACH safety regulation requirements to strictly control product quality, strictly control and eliminate hazardous substances, and ensure that we provide Eco-friendly, safe, and harmless sustainable dyes to domestic and international customers.

Product Certifications

We attach great importance to the safety and health of consumption-based textiles, and our company and products have been certified by more than 10 authoritative organizations:Our company has passed the certification of ISO Quality Management System, Environmental Management System, Occupational Health and Safety Management System, Energy Management System, and Integration of Industrialization and Industrialization Management System, and we joined the ZDHC and became its contractor in 2017.Our related products have passed the Bluesign® System Certification, OEKO-TEX® ECO PASSPORT Certification, Global Organic Textile Standard (GOTS) Certification, ZDHC MRSL V3.1 Compliance Certification, Green Leaf Certification, and Green Dye Product Certification, and comply with the Inditex standards and REACH and KKDIK regulations, which fully demonstrate our strict requirements for product standards, as well as our commitment and unremitting pursuit of producing green, Eco-friendly, healthy and safe products.



Zero Discharge of Hazardous Chemicals Organization (ZDHC)



Providing Healthy and Safe Dyestuff

We fully consider the impact on human health, resources and the environment caused by the structural design, raw material selection, production, sales, use and disposal of dyestuff in the development process, minimize or eliminate the use of raw materials containing toxic and hazardous substances, strengthen the control of raw materials and finished products, cut off the source of hazardous substances, and provide healthy, safe and Eco-friendly products for downstream textile printing & dyeing enterprises.

100%

of the whole industrial chain products and suppliers' raw materials passed the testing of aromatic amines and other harmful substances.

Structure design

Selection of raw materials

Production

Sales

Use

Treatment

We actively develop innovative high-performance eco-reactive dyes and promote the transformation of dyestuffs from ordinary products to high-performance, eco-safe products. Moreover, we value customer feedback on product quality, focus on improving product performance, and provide customized process solutions to meet diverse customer needs.

In 2025, we further optimized our quality control procedures, strengthened the IPQC process inspection system, reinforced the product quality release standard and the outer packaging rework standard, and implemented them to the key nodes, resulting in significant improvement in product quality stability and customer satisfaction.

In 2025
Color Root's product qualification rate reached
98.45%
Rated as a National Four-Star Customer Satisfaction Enterprise.



Color Root has obtained ISO 9001 Quality Management System Certification

Dyestuff Management

We always adhere to the product quality management concept of "quality first, prevention first, customer first, full participation and continuous improvement", improve the quality management system and implement the product life cycle management process. At the same time, we electronize the key data of all production links through the ERP information system, and control the raw materials in batches and categories, so as to realize the traceability from finished products to raw materials and strengthen the product quality management.

Dyestuff Quality Management System



2.3

Circular Economy Growth

We actively develop a resources-recycling industrial system, develop internal and external dual circulation, drive the circular production and industrial integration, facilitate the comprehensive utilization of waste utilization, and significantly enhance resource efficiency.



Circulation in Production Links

We strictly implement the pollution discharge policy, ensuring the three types of waste (waste gas, wastewater, and solid waste) are treated comprehensively and discharged within compliance standards. By optimizing production processes and enabling material conversion between product lines, we minimize waste generation at the source. Our upgraded management systems and pollution control facilities, overseen by the Environmental Protection Committee, continuously advance pollution control and resource recycling capabilities. These efforts contribute to preserving ecological balance and building a sustainable future.

In 2025

Total waste gas emissions decreased by

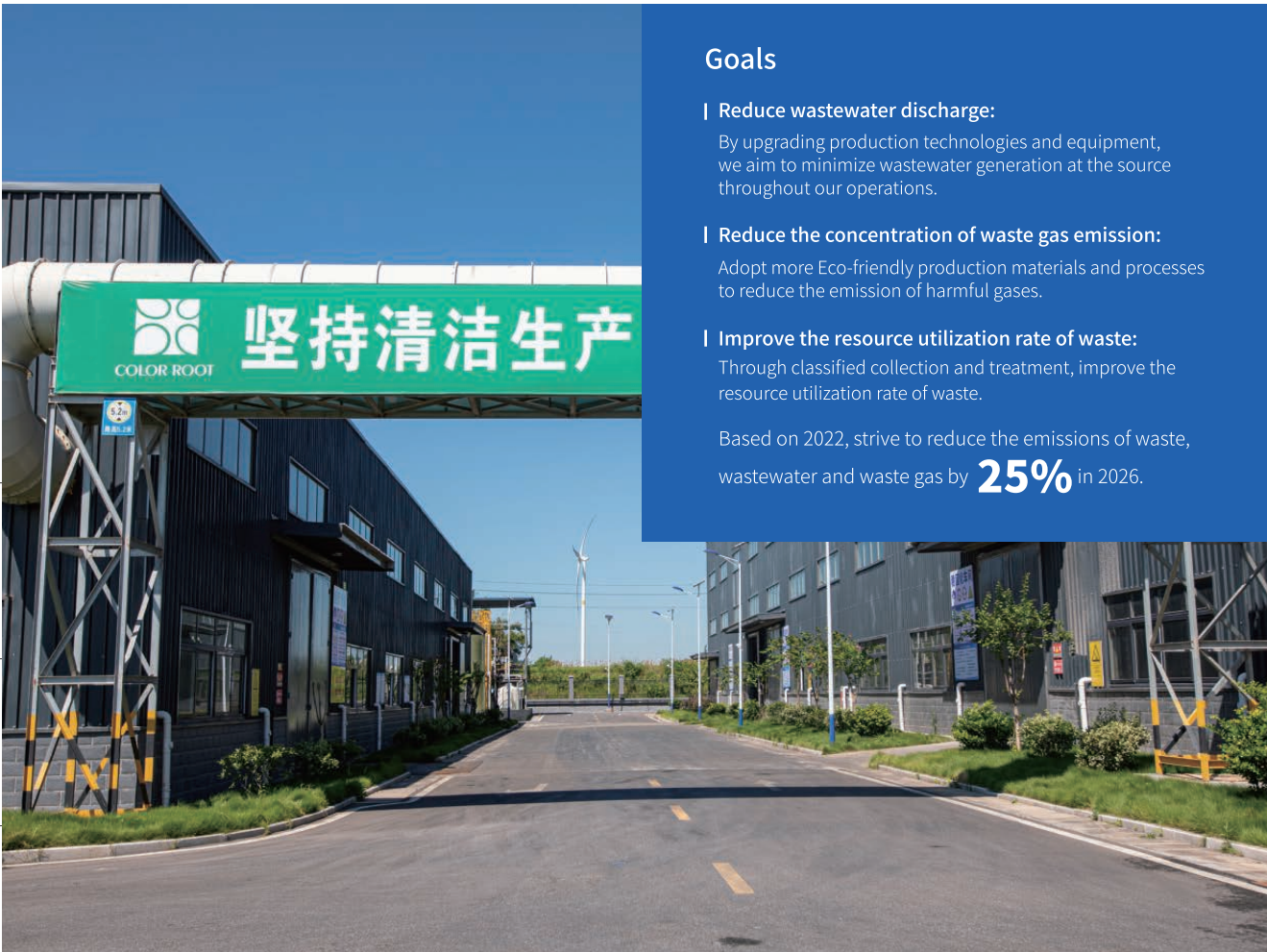
74.75% compared to 2022

Total wastewater discharge decreased by

21.62% compared to 2022

Solid waste recovery rate reached

96.56%



Goals

| Reduce wastewater discharge:

By upgrading production technologies and equipment, we aim to minimize wastewater generation at the source throughout our operations.

| Reduce the concentration of waste gas emission:

Adopt more Eco-friendly production materials and processes to reduce the emission of harmful gases.

| Improve the resource utilization rate of waste:

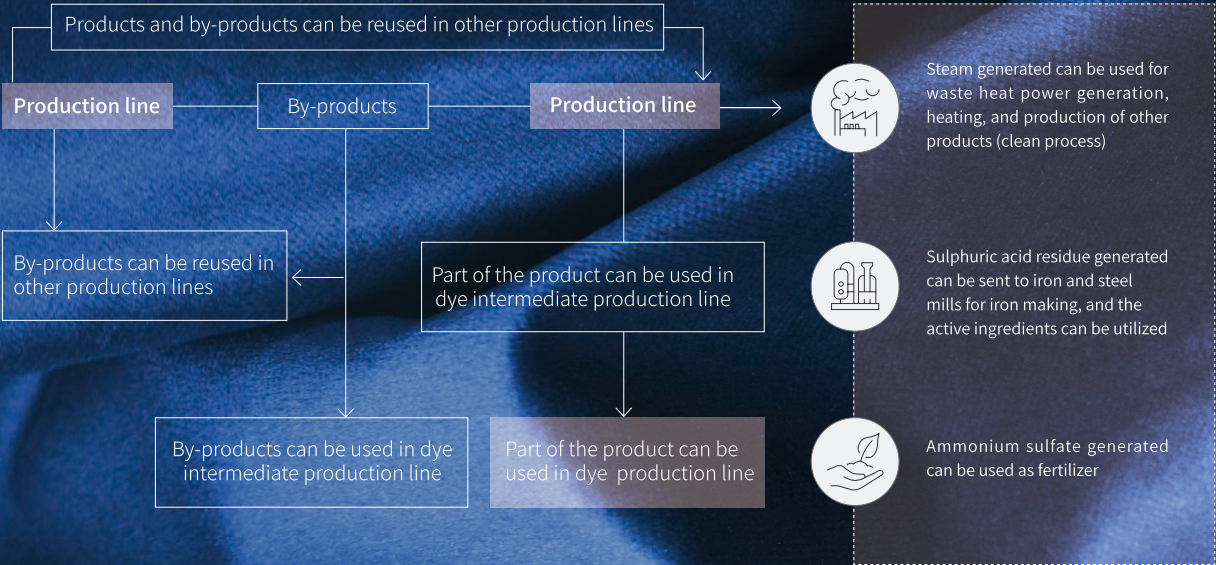
Through classified collection and treatment, improve the resource utilization rate of waste.

Based on 2022, strive to reduce the emissions of waste, wastewater and waste gas by **25%** in 2026.

Comprehensive Utilization of Production By-products

We conduct dedicated research on resource recovery, transforming by-products and residues from production processes into valuable raw materials, energy, or products for Color Root's internal use or commercial sales. This "waste-to-resource" strategy allows us to manage waste through waste synergy, converting discarded materials into productive assets. By optimizing production technologies, we strengthen closed-loop integration of raw materials and by-products across product lines. This minimizes residue and secondary output generation while enhancing resource efficiency, particularly for waste salt, waste acid and other by-products.

Comprehensive utilization process of production by-products



Shayang Resource Utilization Project is the first project in Hubei Province to obtain a hazardous waste operation license for resource utilization of municipal solid waste incineration fly ash. In April 2025, the project was approved by the Hubei Provincial Department of Ecology and Environment, with an approved annual utilization and disposal scale of 126,000 tons. Phase I has built a 100,000 tons/year waste salt treatment line and a 30,000 tons/year fly ash treatment line, achieving high-value utilization of hazardous waste through proprietary processes.



Unattended floor scales for hazardous waste intake and outbound shipments

Industrial Recycled Water & Emission Gas Recycling

We actively implement circular economy principles through advanced recovery systems. By applying multi-stage treatment technologies, we transform recyclable wastewater and emission streams into production-grade resources. These recovered materials are then reintegrated into manufacturing processes, effectively reducing and operational costs through resource autonomy.

In 2025

The company's circulating water reuse rate has increased to approximately.

45.8%

Water recycled

229,028 cubic meters.



Recycling Service Solutions

We offer professional solutions for harmless treatment and resource utilization of hazardous wastes through advanced technology and scientifically managed processes, reducing the environmental impact of industrial activities and advancing the green circular economy.

Hazardous Waste Treatment Service:

Guided by the principles of "reduction, recycling, and harmless treatment", we provide compliant hazardous waste disposal solutions for waste generators. While managing our own waste responsibly, we assist customers in safe landfilling and resource recovery, contributing to the development of zero-waste cities.

Composite Liner Landfill

This landfill disposal facility utilizes a double composite liner as the impermeable layer. The flexible landfill area of this project is located in the southern part of the site, with a 13-layer anti-seepage structure at the bottom and a 5-layer anti-seepage structure on the slopes. It is equipped with facilities such as temporary cover film, groundwater and leachate drainage system, and water collection system on the film. The planned total flexible storage capacity is 5.94 million cubic meters, mainly disposing of 23 categories and 128 subcategories of hazardous wastes, such as pesticide waste, incineration residues, chromium-containing waste, and copper-containing waste.

Reinforced Concrete Landfill

This landfill disposal facility utilizes a monolithic reinforced concrete structure as the impermeable barrier. This project's RC landfill is located on the north side of the plant, with 15 concrete cells designed, a total storage capacity of 240,000 cubic meters, mainly disposing of 12 categories and 88 subcategories of hazardous wastes, including waste salt, arsenic-bearing wastes, and mercury-bearing wastes.



By the end of 2025, the company's hazardous waste landfill in Hubei will be the solid and hazardous waste landfill disposal center with the largest approved storage capacity in China.

Total storage capacity for hazardous waste

6.18 million cubic meters

Disposal of hazardous waste

44,886.72 metric tons

Solid Waste Resource Utilization Services

Our practices highly conform to legislative spirit of the Ecological Environment Code of the People's Republic of China, effective 2026. The Code follows 'green development, ecological priority,' balancing ecology, livelihood, and economy. It establishes the 'reduce, reuse, recycle' principles for solid waste control, requiring full-process management; and states 'minimize landfill amount,' providing legal guidance for resource utilization. — We uphold this spirit, turning waste into resources, protecting ecology via compliance, driving recycling via innovation, achieving win-win between environment and economy.

We provide industrial waste salt recycling solutions for enterprises generating salt-containing solid waste. By leveraging existing on-site equipment and surplus steam, we transform external industrial waste salt into value-added products including industrial salt, fertilizer products and raw materials, and chemical feedstocks. Our solid waste resource recovery initiative provides tailored disposal solutions for diverse chemical enterprises, resolving persistent operational bottlenecks and advancing their green sustainable development.

We have invested nearly **RMB 100 million** to complete three solid waste resource utilization projects, including Likangyuan Chemical's **200,000 t/a** general solid waste resource utilization project and a **350,000 t/a** hazardous waste resource utilization project (Phase I)

In 2025, the total amount of solid waste (including hazardous waste) subject to resource recycling reached **59,988.75** tons.

The solid waste recycling rate reached **96.56%**

This has solved solid waste disposal challenges for several enterprises in the chemical industry.

Hubei Province's First Fly Ash Resource Utilization Operation Permit

was issued by the Hubei Provincial Department of Ecology and Environment in April 2025, permitting collection, storage, and utilization with an approved annual treatment scale of 126,000 tons, covering 12 categories and 104 subcategories of hazardous waste. It is the first project in the province qualified for resource utilization of municipal solid waste incineration fly ash and waste salt.



Packaging Material Recycling

Sustainability of packaging materials is an important step to reduce the negative impact of enterprises on the environment. We have established a packaging material recycling system to reprocess and recycle waste packages and improve the recovery rate of package materials. At the same time, we have formulated a packaging material saving strategy and target, focusing on the three core elements of "packaging material reduction, greening and standardization", and striving to save packaging material resources while reducing environmental impacts, so as to achieve environmental protection and economic benefits.

Strategic plan of packaging material saving

Reduction of packaging materials

On the premise of not affecting product quality and safety, reduce the use of packaging materials by folding, modular packaging, optimizing packaging size, and improving space utilization.



Greening of packaging materials

Promote the use of reusable and degradable packaging materials of paper, wood and metal.



Standardization of packaging materials

Carry out the standardization of packaging materials and reduce the types and specifications of packaging materials supply.



Objectives

By the end of 2025, the recovery rate of our packaging materials reached **97.6%**.

We plan to increase the recovery rate of packaging materials to **99%** by 2030.

2025

The total amount of packaging materials used for dyestuff finished products reached **1,306.77** tons.

The recovery reached **1,275.78** tons.

The total weight of renewable materials used to produce and package major products and services was **3,131.82** tons.



2.4

energy & Resource

The concept of sustainability is embedded not only in Color Root's products and business but also in our production and operations. We actively fulfill environmental responsibilities, guided by the principle of "green first" and the core values of "conservation priority, efficient utilization, technological innovation, and circular development." We adhere to the approach of developing while protecting and protecting while developing, striving to support sustainable growth with minimal energy and resource consumption. Strictly following the principles of reduction, reuse, and harmless treatment, we reduce resource consumption at source across production, distribution, and consumption, minimizing our environmental impact.

Green Operation

We improve Color Root's environmental management system actively and have established an environmental management committee headed by the general manager of the plant, which is responsible for leading and coordinating the overall work of environmental protection, compiling environmental protection objectives and work plans, so as to ensure that environmental protection concepts are effectively implemented. We have also set up an environmental risk assessment system to conduct risk assessments of production processes, wastewater discharge destinations, production technologies, safety evaluation of hazardous chemicals, safe production control, environmental risk prevention and control measures, and environmental pollution caused by environmental emergencies to safeguard the green operation of the enterprise.

2025

By the end of 2025, Color Root has been recognized as a provincial green factory in Hubei Province and Likangyuan has been recognized as a green factory in Jingmen City. Both Color Root and Likangyuan have passed ISO 14001 Environmental Management System Certification.



Green office

Achieving green operations for an enterprise should not only be reflected in the production process; practices in the office area are equally important. We actively encourage and promote the concept of green office, implementing it through regulations, intelligent office practices, and the use of energy-efficient appliances, thereby reducing energy consumption and waste emissions in office areas and alleviating the burden on the environment.

Optimize equipment operation time

- Make full use of natural light and reduce the use of artificial lighting.
- Set operating hours for office areas and equipment, and turn them off when not in use.

Popularize energy-saving electric appliances

- Use energy-saving electric appliances such as LED lights and energy-saving air conditioners.
- Adopt an intelligent control system to realize remote control and timing switching of equipment to reduce energy waste.

Promote intelligent office

- Promote paperless office and use electronic documents instead of paper documents.
- Reduce unnecessary printing and avoid repeated waste.
- Optimize office processes and use online video conferencing to reduce travel.

Tackle Climate Change

Climate change is a common challenge facing all mankind, and it has become a consensus in the world to mitigate the extreme climate impacts brought about by global warming. We deeply understand the profound impacts of climate change on the social economy and corporate development, and have actively responded to domestic and international climate initiatives. We have formulated a systematic climate change response strategy and greenhouse gas emission reduction targets in conjunction with the current situation of Color Root. In the future, we plan to establish a comprehensive climate change management system to further strengthen our climate resilience through more effective carbon reduction measures.

2025

Color Root's photovoltaic power generation capacity reached

1,821,879 kWh

cogeneration capacity amounted to

3.75 million kWh

annual carbon emissions decreased by

41.96%

compared to 2022



Greenhouse gas reduction initiatives

Promote the application of renewable energy

Actively promote the use of renewable energy sources, such as solar energy and wind energy, to reduce dependence on fossil energy. This not only reduces greenhouse gas emissions, but also promotes environmental protection and sustainable development.

Improve energy utilization efficiency

Adopt energy efficient technologies and equipment, optimize energy use structure, and improve energy use efficiency, thereby reducing energy consumption and greenhouse gas emissions.

Green supply chain management

Promote upstream and downstream enterprises in the supply chain to jointly implement green production and emission reduction measures to form a green supply chain system, jointly addressing climate change.

Emphasize both adaptation and mitigation

While strengthening climate change mitigation measures, focus on climate change adaptation issues to improve Color Root's adaptive capacity and resilience.

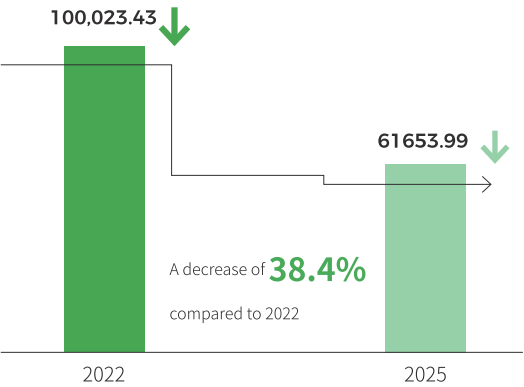
Accounting for Greenhouse Gas Emissions

We have established an internal greenhouse gas emission accounting system in accordance with the "Greenhouse Gas Emission Accounting Methodology and Reporting Guidelines for Chemical Manufacturing Enterprises in China (for Trial Implementation)", and have conducted our own accounting for the greenhouse gas emissions generated by major manufacturing enterprises of Color Root's two main business units in the course of their production to assess the effectiveness of our annual carbon-reduction efforts.

Greenhouse gas emissions of Color Root from 2022 to 2025 (unit: ton of carbon dioxide equivalent)

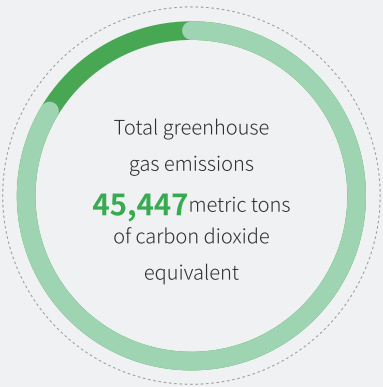
Color Root's total greenhouse gas emissions in 2025:

61653.99



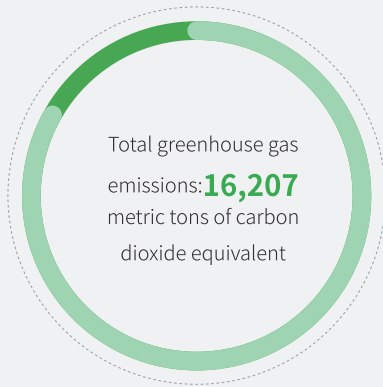
Greenhouse gas emissions from production in the two business units in 2025

Dyestuff Business Unit total emissions:



- Direct emissions accounting for 81%
- Indirect emissions 19%

Environment Business Unit total emissions:



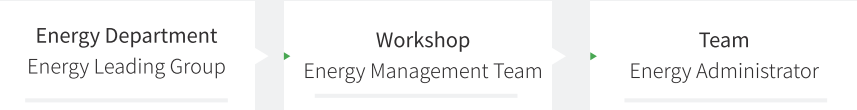
- Direct emissions accounting for 16%
- Indirect emissions 84%

Note: The accounting boundary of the Dyestuff Business Unit is all the production facilities of Hubei Color Root Technology Co., Ltd; the accounting boundary of the Environmental Protection Business Unit is all the production facilities of Hubei Likangyuan Chemical Co., Ltd.

Energy Saving

We adhere to the energy management policy of "Technology Leadership, Energy Efficiency Improvement, Total Quantity Control and Sustainable Development", and through the establishment of an energy management system, the implementation of strict systems and standards, and the implementation of proactive energy-saving improvement measures, we have improved the efficiency of energy utilization, reduced energy waste, and lowered the carbon footprints of our production and operations. We have established a three-level energy management structure consisting of departments, workshops, and teams, with the company's deputy general manager serving as the leader of the leading group for overall management, ensuring the effective operation of various energy-saving efforts.

Energy Management Structure



Color Root and its main subsidiary Likangyuan have passed ISO 50001 Energy Management System Certification.



Upgraded sulfuric acid equipment

Our energy consumption types mainly include purchased energy such as electricity, diesel, biomass, bituminous coal, as well as self-produced energy such as steam and coal gas. To implement energy management requirements and fundamentally improve the level of energy management, we identify the laws and regulations of the industry actively, formulate the "Energy Management System", and the "Energy Saving Target Assessment Implementation Plan", and establish energy-saving assessment targets to quantify the energy saving targets to the departments, positions, and individuals, and carry out monthly, quarterly, and annual assessments to ensure that the assessment results are linked to the performance pay of the relevant personnel.

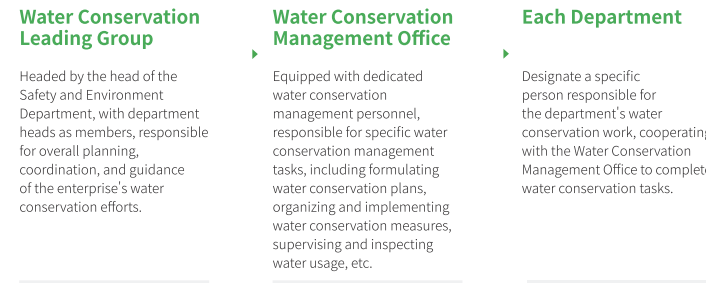
⌵ Sulfuric Acid Equipment Upgrade

Previously, the company's sulfuric acid production system faced challenges due to aging equipment, insufficient sealing, and high emission concentrations. In 2025, the company comprehensively promoted the transformation of old equipment, implemented an overall upgrade of the sulfuric acid system, effectively reduced pollutant emission levels, and achieved a significant improvement in environmental performance.

Water Resources Conservation

Strengthening the rational development, utilization and protection of water resources is an important topic for the sustainable development and transformation of chemical enterprises. We are committed to improving the efficiency of water resources utilization and strengthening the effective management of water resources through recycling and economical management. We have established and improved the water resources management system, formulated documents such as "Water Saving Management Measures" and "Water Management System", and set water saving assessment indicators for regular assessment.

Color Root Water Conservation Management Structure



2025

The annual water saving directly achieved by water conservation measures amounted to

229,028 tons



2025 Provincial Green Manufacturing Factory



*Waste Heat Power-Generation Equipment

Production Water Supply

A part of the raw sewage collected from various workshops is used as circulating water for process cooling after being evaporated by thin film, and about 90% of the production wastewater treated by thin film evaporation equipment can be recycled to produce process water and circulating water. The other part is concentrated by MVR, concentrated by thin-film evaporator, and reused in the plant after domestic sewage treatment, and the rest is discharged through the pipe network.

Domestic Water

Through measures such as collecting sediment and recycling, it can be reused for greening and washing in the park.

New Waste Heat Power Generation Equipment

In 2025, we added a new waste heat power generation project, using waste heat boilers to collect heat from the sulfuric acid fluidized bed furnace, generating high-pressure steam to drive steam turbines for power generation, reusing previously wasted energy and significantly improving the overall system's energy efficiency. In 2025, we generated 1,781,736 kWh of electricity through this equipment. Color Root completed the installation of waste heat recovery equipment for 8 drying towers. After waste heat recovery, coal gas usage can be saved by 18%. This effectively achieves energy savings, reduces carbon emissions and standard coal consumption, improves workshop ambient temperature, reduces equipment heat load, etc., meeting the requirements of green intelligent manufacturing.

2.5

Health & Safty Guarantee

Color Root implements the occupational health and safety policy of "prevention first, comprehensive management", adheres to the "people-oriented" core value, and takes the continuous improvement of the working environment of the employees as an important mission from the perspective of the employees' health and safety needs to provide a solid guarantee for the employees' occupational health and safety.



Health and Safety System

By adhering to the concept of "any risk can be controlled, any violation can be prevented, and any accident can be avoided", we minimize the risks of occupational health and safety and provide employees with a safe and healthy working environment. We strictly follow national laws and regulations, combined with domestic and international industry requirements for occupational health and safety, to formulate health and safety management systems such as the "Environmental and Safety Operation Control Procedures", and improve the occupational health and safety management system and the production safety responsibility system.

We have established a Production Safety, Environmental Protection, Fire Protection and Occupational Health & Hygiene Management Committee, with the general manager of the plant as the director, the deputy general managers in charge as the vice directors, and the heads of each department as members, effectively fulfilling their respective responsibilities and tasks, leading and organizing work related to environmental protection, fire protection, and occupational health and hygiene, studying, deploying, and guiding the safety production work of the company and its subordinate units, actively promoting and continuously improving the safety, health and environmental management system and ensuring its effective operation.

To minimize occupational health and safety risks, we have formulated the "Control Procedures for Identification of Danger Sources and Risk Evaluation". By thoroughly identifying various danger sources and scientifically assessing and effectively controlling potential risks, we strictly follow the "Control Procedures for Improvement, Correction and Preventive Measures", actively rectify hidden dangers found, and strive to fundamentally eliminate or significantly reduce occupational health and safety risks, thereby continuously strengthening the healthy and safe working environment for employees and ensuring the solid protection of every employee's health and safety.

Occupational Health Management

In occupational health management, we have established a comprehensive institutional system based on laws and regulations such as the "Law of the People's Republic of China on the Prevention and Control of Occupational Diseases", including 12 policy and institutional documents such as "Responsibility System for Prevention and Control of Occupational Disease Hazards", "System for Workers' Occupational Health Guardianship and Records Management", and "System for Monitoring and Evaluation Management of Occupational Disease Hazards". Starting from the three major strategies of occupational health and safety management, we formulate specific countermeasures and measures based on the actual situation of employees, provide professional occupational health checkups for employees in different positions, and effectively implement occupational health and safety management.



Color Root has passed ISO 45001 Occupational Health and Safety Management System Certification.

Occupational Health and Safety Management Strategies

1. Ensure that employees are protected from accidents in the course of work and maintain their life safety and health.

2. Pay attention to employees' mental health, prevent and solve mental health problems in the workplace, and improve employees' job satisfaction and happiness.

3. Comply with national and local laws and regulations to protect the legitimate rights and interests of employees, such as labor protection and employment injury insurance.

2025

The coverage rate of Color Root's employees' occupational health checkups reached **100%**

Occupational disease incidence rate of employees was **0%**

and disabling injury frequency rate was **1%**

Production Safety Management

In production safety management, we always carry out the safety policy of "safety first, prevention first, comprehensive management", firmly establish the safety awareness that production safety responsibility is greater than everything, follow the working principle of "horizontal to the edge, vertical to the end, responsibility assigned to individuals, leaving no dead ends", implement the production safety responsibility system, strengthen supervision and inspection, and ensure the safe organization of production.

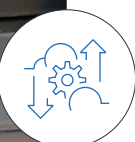
For emergency management, we have formulated the "Environmental Emergency Response Plan" based on the risks of sudden environmental accidents such as leakage and scattering that may occur during the collection, storage, and utilization of hazardous waste within the company's plant area. The emergency plan is confirmed by the emergency commanders and emergency response team members, and after being signed and sealed, it is submitted to the Environmental Protection Bureau for filing. When there are significant changes in the types or treatment methods of hazardous waste, and the original plan can no longer meet the requirements for emergency response, the command leading group revises it, replaces the old version, and re-submits it for filing.

2025

No safety or environmental accidents occurred throughout the year, Total number of potential hazards identified throughout the year **930**, Major hazards **0**, Number of safety and environmental inspections conducted by government agencies at all levels throughout the year **118**, Pass rate and rectification rate **100%**.Total annual investment in safety and environmental protection **9.8143** million yuan.

primarily focused on automation upgrades, facility renewal, emergency response infrastructure, and training.

The company organized **31** safety and environmental training sessions and **19** emergency drills, with over **4,300** participants, all of whom passed the assessments.



Color Root Production Safety Management Measures

Building Corporate Safety Culture

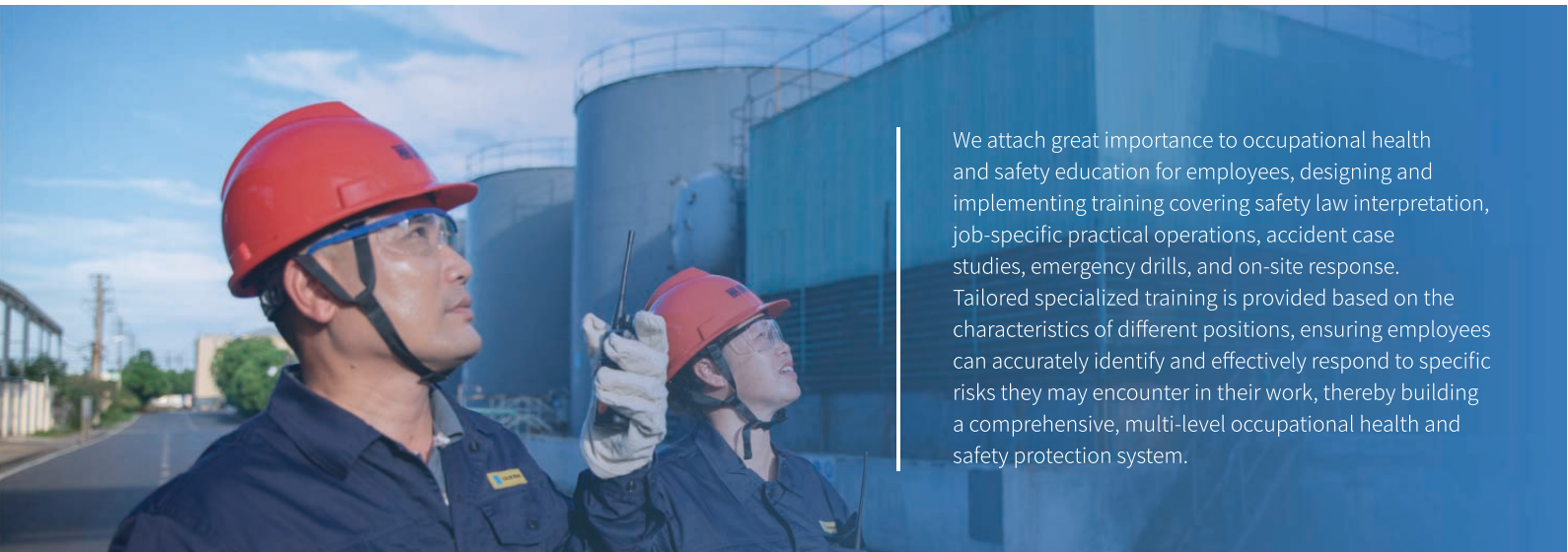
We carry out occupational health and safety activities to motivate the employees' safe production attitude and professionalism, form perfect, standardized, scientific and effective safety management rules and regulations, improve the employees' safety awareness, and enhance the safety responsibility of Color Root's managers at all levels. Form a "people-oriented" multi-level composite corporate culture consisting of safety material culture, safety behavior culture, safety system culture and safety spirit culture.

Improving the Production Safety Responsibility System

Color Root has signed five-level production safety target management responsibility documents with the general manager, deputy general manager, department director, workshop director, team and employee and the safety commitment has been signed to each employee to implement the safety management system of "horizontal to the edge, vertical to the end, up and down corresponding, internal and external convergence".

Dual Prevention Working Mechanism

Starting from systematic and essential safety, we strictly supervise and inspect, implement the risk classification management responsibility, and comprehensively identify the risks of Color Root position by position and equipment by equipment and formulate management and control measures. We inspect the equipment and facilities as well as the operation site. For the problems identified in the form of "hidden danger rectification notice", give timely notification to the responsible unit for rectification, and track the implementation. Achieve "five implementations" including responsibility, measures, funds, time limits and plans.



We attach great importance to occupational health and safety education for employees, designing and implementing training covering safety law interpretation, job-specific practical operations, accident case studies, emergency drills, and on-site response. Tailored specialized training is provided based on the characteristics of different positions, ensuring employees can accurately identify and effectively respond to specific risks they may encounter in their work, thereby building a comprehensive, multi-level occupational health and safety protection system.

Safety production presentation



Hazardous waste leak emergency drill site



Monthly safety production meeting



Intelligent Safety Production

To effectively safeguard employee occupational health and reduce operational safety risks, the company actively promotes the R&D of new technologies and the iterative upgrade of production equipment, establishing an automated and intelligent production process management system. Relying on mechanical, electronic, and computer technologies to achieve precise production process control, it minimizes direct personnel involvement in high-risk operations and comprehensively enhances safety production capabilities.

In 2025, the company successfully completed the automation upgrade of its diazotization process, significantly reducing employees’ direct exposure to hazardous substances and effectively mitigating the impact of occupational hazards—such as noise and dust—on employee health. Moving forward, the company will continue to optimize production processes, enhance the containment and protective capabilities of equipment, and continuously improve the workshop environment. By steadily strengthening the safeguards for employee health and safety, the company is making a solid contribution to creating a safe, healthy, and efficient production environment.

Intelligent Safety Management System

DCS Automatic Control System

Supervise the whole process of production safety, realize centralized management and decentralized control of the production process, and ensure the safety of the production process.

SIS Safety Interlocking System

Prevent accidents from occurring and reduce the danger and impact of accidents.



Intelligent central control room

2.6

Building a Vibrant Workplace

The company firmly believes that employees are the most valuable asset and the core driving force for sustainable development. We practice the core values of "Bright", committed to building a diverse and inclusive employment environment, and providing a stage for every employee to grow through a systematic talent development system, aligning personal value with corporate development.

Diverse and Inclusive Employment Environment

Throughout its development, the company has consistently practiced the concept of social inclusive development, with its employee composition showing distinct characteristics of being rooted at the grassroots and serving the local community. Currently, there are 640 employees from rural areas, accounting for 69.87% of the total workforce. This high capacity to absorb rural labor not only alleviates regional employment pressure but also broadens channels for increasing farmers' income and promotes integrated urban-rural development. The company attaches great importance to employment fairness and diversity, actively fulfilling its social responsibilities: it has employed over 20 retired military personnel through special recruitment, providing a stable platform for their career transition; it adheres to the principle of equal employment for people with disabilities, including one employee with a disability, supporting the development of the cause for persons with disabilities through practical actions.

At the same time, the company focuses on cultivating and empowering female leadership, building a broad career development platform for female employees. Ms. Zhang, a female senior executive, has been awarded the titles of "Top 100 Outstanding Entrepreneurial Female Talents" in Jingmen City and "Model Woman for Achievements" in Hubei Province, thanks to her outstanding business acumen and remarkable work performance. This honor not only affirms the company's achievements in gender equality but also highlights the crucial role female employees play in driving high-quality corporate development.

Systematic Talent Development, Energizing the Organization

The company continues to deepen the systematic cultivation of key talents and the new generation reserve force, injecting continuous vitality into sustainable development.

High-Potential Talent Identification and Development

In April 2025, the company implemented the Beisen Talent Assessment System. Through scientific talent evaluation and talent mapping, the company accurately identified and continuously monitored 31 candidates for the succession planning program. A series of courses was designed around dimensions such as "management role transition, practical skills enhancement, communication and influence building, mindset expansion, and workplace efficiency," with the aim of cultivating a core team that combines managerial vision with the resilience to execute.

Graduate Trainee Tracking and Development

The company actively explores a systematic transition path from "campus talent" to "corporate professional". By combining cultural integration, mentorship, and on-the-job practice, it formulates "Internship Plan Schedules" by major, clarifying mentorship responsibilities, internship content, and evaluation criteria. A "monthly summary and feedback" mechanism is established to achieve process tracking and continuous care. In 2025, we systematically followed up on 11 graduate trainees, helping them successfully complete their role transition and lay a solid foundation for their career development.



Empowering Managers to Build Excellent Teams

In 2025, to systematically enhance the strategic thinking and leadership capabilities of the mid-to-senior management team, the company successfully held two sessions of the "Management Capability Enhancement Specialized Training" in March and December, respectively. This specialized training precisely targeted the Group's core management pipeline, empowering a total of 102 mid-to-senior managers across 40 cumulative training hours. We engaged external senior instructors and incorporated cutting-edge methodologies. The curriculum focused on key areas such as transforming management perspectives, building high-performance teams, decoding strategic objectives, and closed-loop performance management. Through diverse formats—including in-depth case studies, structured group discussions, and scenario-based role-playing—the program effectively fostered consensus on management philosophies and promoted the practical application of management tools. Additionally, the training incorporated elements such as corporate culture preservation, brand strategy alignment, financial literacy, and deepening of business knowledge into its framework. This helped mid-to-senior managers integrate capabilities across multiple dimensions, comprehensively enhancing strategic execution and organizational synergy.

First Session of Management Skills Development Training



Brand and Cultural Training



Group assignment



Outstanding Trainees in Resource Recovery Business Knowledge Training





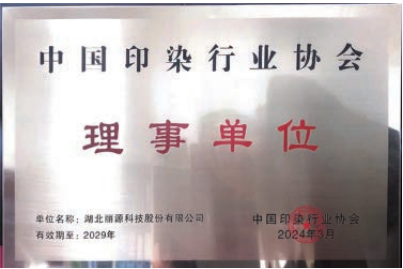
2.7

Industry Co-Creation

As a dye industry player, we believe innovation, cooperation & sharing bring positive value to sustainable development of our firm, the industry, and society. To enable co-creation & win-win, we collaborate with global peers and scholars to exchange new achievements and explore opportunities. We actively fulfill industry association duties, advance standards, and conduct deep talent exchange & R&D projects with universities, boosting future industry growth via talent cultivation and tech innovation.

Industry Exchange and Integration

In order to promote the co-creation and win-win situation of the industry, we actively participate in domestic and international exchanges and exhibitions related to dyestuff and sustainable development, and realize the coordinated development and mutual benefit and win-win situation of the industry through intuitive and high-quality exchanges. Moreover, we participate in various trade associations actively. As a governing unit, we deeply participate in China Printing & Dyeing Industry Association and Hubei Monitoring Chemicals Association to jointly promote the sustainable and high-quality development of the industry.



Governing Unit of China Printing & Dyeing Industry Association

Color Root Invited to Attend the 8th National Dye Standardization Technical Committee

On Mar 26-27, the 1st standard review meeting of the 8th National Dye Standardization Technical Committee was held in Wuhan. Color Root was invited. The committee reviewed and approved 17 standards. Future efforts will jointly promote smart tech, green tech, and new materials to upgrade the industry.



Color Root and Chromatol Dual-Brand Joint Participation in the 24th China International Dyestuff Expo

On Apr 18, 2025, Color Root & Chromatol jointly attended the 24th China Int'l Dye Expo. Prof. Lu Mingyi (Qingdao Univ. of Sci. & Tech., Chief Advisor of Yingjietai New Materials) praised Chromatol's new easy-washing, energy-saving, eco-friendly dyes in his speech. He noted that the SP-EC series offers innovative solutions for sustainable development of textile printing & dyeing.



Color Root Invited to Attend Bluesign Chemical Experts Group (CEG) Meeting

In Apr 2025, Color Root was invited to the bluesign Chemical Experts Group meeting to discuss textile chemical safety & sustainability with global experts. Committed to chemical safety, since becoming a bluesign partner in 2016, it has pushed 203 products through strict bluesign certification (59 from Color Root, 144 from Chromatol).



Chromatol Appears at the Asia-Pacific Textile and Apparel Supply Chain Expo in Singapore

From Nov 19-21, Chromatol exhibited at Singapore's Sands Expo for APTEXPO, a major textile & apparel supply chain event. Its team joined summit forums and matchmaking sessions, discussing supply chain synergy and low-carbon transition. COLOURZOL®, leveraging its edge in reactive dyes, drew global brands, manufacturers, and industry experts.



Building Industry Standards Together

The guidance of high-quality standards is a key factor for the innovation and sustainable development of the industry. As a member of the Group Standardization Technical Committee of China Dyestuff Industry Association, we have actively participated in the formulation of national and industrial standards related to reactive dyes to promote the healthy development of the dyestuff industry, and have participated in the formulation of a total of 17 standards. During the reporting period, we participated in the formulation of standards related to the evaluation of green products and green factories in the dyestuffs industry, profoundly participating in helping improve the industry's sustainable development system.



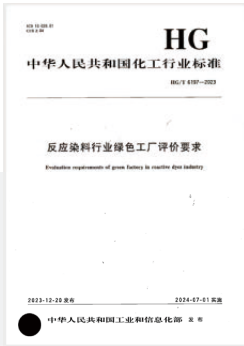
Participated in the formulation of the national standard GB/T 44009-2024 "Green Product Assessment-Dyes"



Participated in the formulation of the industry standard HG/T 3963-2024 "C.I. Reactive Blue 222 (Reactive Dark Blue M-2G)"



Participated in the formulation of the industry standard HG/T 6197-2023 "Evaluation Requirements of Green Factory in Reactive Dyes Industry"



Industry-University-Research Cooperation

As an industry leader, Color Root recognizes talent as the core driver of industry growth and makes university-industry talent collaboration a key part of its social responsibility. We have built deep partnerships with DUT, WHPU, GUES and other universities, using industry-education integration to cultivate high-quality, application-oriented talent for the dye chemical and textile printing & dyeing industries. Together with partner universities, we establish industry-academia-research bases and employment internship bases, offer standardized internships with dedicated corporate mentors, and provide priority hiring to outstanding interns—ensuring a precise match between university training and corporate needs. We also assign technical experts and key R&D personnel as university mentors to help design curricula and teach practical courses, bringing cutting-edge technologies and real business cases into the classroom, thus bridging the gap between academic training and industry practice. In addition, we have set up the "Color Root Scholarship" to reward students with strong academic and personal performance, providing financial support while encouraging them to deepen their expertise in the industry and build a sense of identity and belonging. This continuously supplies talent to drive high-quality development of the industry.

Continuously Exploring New Models of School-Enterprise Collaborative Education, Writing a New Chapter in Industry-Education Integration

On December 8, 2025, Color Root officially signed an industry-university-research cooperation agreement with Wuhan Polytechnic University. The company will provide a substantial practical platform for the cooperation, achieving mutual benefit and common development through close collaboration with Wuhan Polytechnic University. This signing ceremony is not only a new starting point for the cooperative relationship between Color Root and Wuhan Polytechnic University but also a vivid practice of deep integration between the enterprise and university, serving regional economic and social development.



School-Enterprise Cooperation-Wuhan Polytechnic University

End-Market Strategic Positioning

I Deepening Brand Value Connection, Building a Sustainable Supply Chain Together

We are committed to transcending the traditional role of a dye supplier and transforming into a strategic partner for apparel brand customers in achieving their sustainable development goals. By precisely addressing the core concerns of end brands regarding the green supply chain, we empower their product environmental upgrades with innovative technologies and professional services, jointly addressing industry challenges and creating shared value.

I Strategic Upgrade: From "Dyestuff Supply" to "Value Co-Creation"

We systematically promote brand value communication, positioning our high-end dye brand Chromatol as a "Sustainable Color Solutions Partner". In 2025, the company built an integrated online and offline promotion system: online, continuously disseminating professional content through social media to accurately convey product value; offline, deeply participating in industry exhibitions and conferences to directly engage with brand decision-makers and establish efficient connections. Through the virtuous cycle of "Promotion-Research-Development", we strengthen product distinctiveness and brand professional image, consolidating our market position in the high-end dye sector. In the same year, the Chromatol bilingual (Chinese/English) official website and the Likangyuan public account were launched, further expanding the direct dialogue window with the end market. Through multi-dimensional brand building, we continuously enhance our thought leadership and professional reputation in the sustainable textile chemicals field.

▮ In September 2025, the Group's high-end brand Chromatol's official website was newly upgraded and launched



Chinese website: www.chromatol.cn



English website: www.chromatol.com

▮ In September 2025, the Group's environmental chemical segment Likangyuan public account was officially launched



Likangyuan public account

Insight into Trends, Driving Sustainable Innovation

Based on Pantone®'s nature-inspired spring/summer color trends, we proactively engaged in technical alignment, using the SP-EC series Eco-friendly energy-saving dyes and the COLOURZOL® high-end series to accurately replicate ten popular colors such as Wheatbread, Saffron, and Limpet Shell Blue, and developed standardized formulations. This not only validated the broad color spectrum and color development performance of our products but also demonstrated our ability to quickly translate global color trends into implementable solutions with both aesthetic and environmental advantages, ensuring that fashion trends resonate with sustainable development from the source.

Focusing on Industry Frontiers, Leading Standard Co-Creation

Through deep participation in globally authoritative industry standard organizations, we actively lead and promote the green transformation of the textile industry chain starting from the source. We continue to deepen our participation and contribution in the Bluesign system. As a key contributor to ZDHC (Zero Discharge of Hazardous Chemicals), we closely monitor and actively integrate into the latest industry frameworks such as "Chemical to Zero", proactively transforming stricter chemical safety, traceability, and full-chain management requirements into core principles for our product innovation and customer service.



Zero Discharge of Hazardous Chemicals Organization (ZDHC)



Empowering Brand Cooperation, Providing Exclusive Value

To deepen strategic partnerships with end brands, we have launched a cooperation system of **"Five Exclusive Benefits"** for brand owners and their designated factories:

**Technical Support**

We establish dedicated teams to share cutting-edge technologies and jointly develop customized eco-friendly dyeing and printing processes, helping brands achieve their environmental goals.

1

**Supply Assurance**

We offer market research, custom formulation services, high-standard dedicated inventory, and agile supply chain solutions to ensure the stability of your brand's supply chain and compliance with environmental regulations.

2

**United for Good**

We collaborate with brands to plan and implement charitable initiatives, using fashion as a bridge to spread kindness and enhance the brand's social image and sense of responsibility.

3

**mutually beneficial**

Prioritize the procurement of partner brand products for internal employee benefits and company events to achieve a closed-loop business model and mutual success.

4

**Exclusive Offer**

We offer exclusive procurement benefits and flexible support to our strategic partners, helping brands optimize their upstream supply chain costs and management standards.

5

RESULTS AND OUTLOOK



Relying on a leading portfolio of Eco-friendly products, solid technical services, and active industry participation, we have established a good cooperation foundation with many well-known domestic and international brands. In the future, we will continue with the mission of "Infusing Fashion with a Green Soul", building deep-link ecosystems such as the "Chromatol Sustainable Development Alliance" to collaborate with more brand partners, jointly promoting the green, transparent, and sustainable development of the entire industrial chain, from chemical sources to end products.



2.8

Social Co-Prosperity

Throughout its development, Color Root has adhered to the core philosophy of "gratitude and giving back to society," closely linking corporate growth with social progress. While pursuing business value and industry breakthroughs, it actively fulfills CSR. The company continuously focuses on people's wellbeing, education, rural revitalization, ecological protection, and community building. Through targeted charitable giving, industry-enabled rural development, green public welfare, and deep community involvement, it integrates sustainability into social value creation, giving back to society and helping build a harmonious, shared social development model.

In 2019, Color Root was honored as "Poverty Alleviation Enterprise" by Songzi Municipal Government for its outstanding contributions, an award that drives its ongoing CSR efforts.



Charitable Contributions

Since its establishment, the company has regarded charitable contributions as an important starting point for fulfilling social responsibility, establishing a normalized public welfare donation mechanism. Donation areas cover multiple dimensions such as targeted poverty alleviation and rural revitalization, higher education support, public health emergency response, and livelihood public welfare assistance, with a cumulative donation amount exceeding RMB 10 million. Every donation closely aligns with social needs, every action focuses on the pain points of people's livelihoods, contributing concrete investment to social development and allowing the benefits of corporate development to reach more people.

▮ Dedicated Funding for Construction to Boost Rural Development

To further advance the rural revitalization strategy and mobilize social forces to jointly build beautiful rural communities, in 2025, Color Root donated nearly 500,000 yuan in special funds for rural revitalization to Mayuhe Village, Boyang Village, Nanhai Shiziling Village, Nanhai Jinjisi Village, and Shiqiao Village in Chendian Town. The donations will be fully allocated to key initiatives in these four villages, including infrastructure improvements, environmental upgrades, the development of distinctive industries, and the enhancement of public services, thereby injecting strong momentum into high-quality rural development.



Supporting Targeted Poverty Alleviation and Rural Revitalization

Over the years, Color Root has carried out targeted poverty alleviation and rural revitalization projects in more than ten villages such as Mayuhe Village, Shiqiao Village, Liqiao Village, Nanhai Jinji Temple, Zhichanghe Shiziling Village, Baiyang Village in Chendian Town, Songzi City. In addition, it has helped improve infrastructure and medical conditions, supported campus construction and scholarships, set up respect for the aged projects, and carried out flood disaster relief, with a cumulative donation of more than RMB 4.3 million.

Support for Higher Education

Color Root has donated more than RMB 3 million to Wuhan Textile University and Guizhou University of Engineering Science, including more than RMB 2.7 million to Wuhan Textile University, which was used to establish scholarships and set up international students' classes for textile dyeing and printing, and fully funded many overseas dyeing and printing students to study master's degrees for two consecutive years; Sponsored RMB 250,000 as scholarships to Guizhou University of Engineering Science.

Help Epidemic Prevention and Control

Following the outbreak of the COVID-19 pandemic in 2020, Color Root donated a total of 2.1 million yuan to Red Cross societies across the country. Of this amount, 1 million yuan was donated to the Songzi Red Cross Society, while a total of 1.1 million yuan was donated to Red Cross societies in Shayang, Shishou, the Tenggeri Development Zone in Inner Mongolia, and the First Division of the Xinjiang Production and Construction Corps.

Organize special charitable donation campaigns, etc.

Color Root made targeted donations to organizations including the Chen Dian Town Population Welfare Foundation, the Songzi City Association for Caring for the Next Generation, the Songzi Charity Federation, the Love Association, the Jingmen Charity Federation, and the Shayang Committee for Caring for the Next Generation. The company also provided financial assistance to the Fire Brigade and the Anti-Drug Brigade, and supported the construction of the Yangtze River Port Industrial Park, with total donations amounting to 700,000 yuan.



Rural Revitalization

In active response to the national rural revitalization strategy, and leveraging our industrial advantages and resource endowments, we aim to "revitalize an enterprise, enrich local economy, and benefit local people". Focusing on job provision, skill enhancement, industrial empowerment, and livelihood improvement, we continue to increase investment in rural revitalization, promoting deep integration between corporate development and rural construction, so that rural areas gain stronger endogenous driving forces.

Providing employment opportunities



By integrating funds for rural revitalization and convergence and transferring idle land, we have provided more than 350 jobs for villagers in Mayuhe Village, Shiqiao Village and Chendian Village, and purchased social insurance for all of them, effectively solving the employment problems of elderly villagers, and driving villagers to increase their income by more than RMB 50 million.

Enhancing employability



We introduced cutting-edge agricultural technology and advanced management experience to support local farmers to join the planting and deep-processing projects of special agricultural products, such as vigorously promoting the planting of new varieties of oranges, and organizing vocational skills training courses to effectively enhance the employment skills of villagers and stimulate the endogenous development of the countryside.

Improvement of villagers' life



We are committed to the construction of rural infrastructure, and strongly support the construction of roads, bridges and streetlights; on the one hand, we have set up a special fund for rural revitalization, and accurately support the development of education, medical care, provision for the aged and other social undertakings, so as to build a solid foundation for rural development and improve the living conditions of villagers in all aspects.



Rural Revitalization Initiatives

In 2026, we plan to build upon our existing practice of purchasing agricultural products to support farmers as part of our employee benefits program by upgrading our agricultural support model and establishing a "sustainable rural revitalization" value chain.

1 Deepen "Consumption-based assistance to farmers"

Strictly implement the required proportion of farm products sourced from local farmers for canteens, and plan to publish a quarterly "Canteen Farm-assistance Bulletin" transparently displaying product categories, procurement amounts, and origin farmer/cooperative information, enhancing employees' sense of participation.

For festival welfare packages (three major festivals), we will design appealing packaging and story cards that share farmer stories and local culture, turning benefit distribution into vivid social responsibility education.

2 Explore "Industry-based" and "Technology-based" assistance

Industrial linkage:

Leveraging our background in chemical and environmental technologies, we will explore synergies with rural specialty agriculture, e.g., using qualified fertilizer products derived from our resource utilization processes to support citrus and grain farming in assisted villages, or providing consultation on eco-friendly pesticides and agricultural film alternatives to support green agriculture.

Industrial linkage:

On top of providing jobs, we will collaborate with local human resources and agricultural departments to offer more systematic vocational training covering logistics, warehousing, basic equipment maintenance (relevant to our operations), further improving villagers' competitiveness and sustainable income-generating capacity.

Green Public Welfare

We always adhere to the principle of "safer, more eco-friendly and healthier", taking sustainable development as our corporate mission and regarding ecological protection as a key part of corporate social responsibility. We integrate green development concepts into daily operations and social welfare activities. Internally, we promote energy conservation, green office, and green travel; externally, we actively organize and encourage employees to join various environmental protection activities, advocate environmental initiatives, and practice green development. Together with society, we advance toward a sustainable future.

From 2026 to 2030, we plan to expand our ecological conservation efforts into a series of projects characterized by sustainability and brand influence.

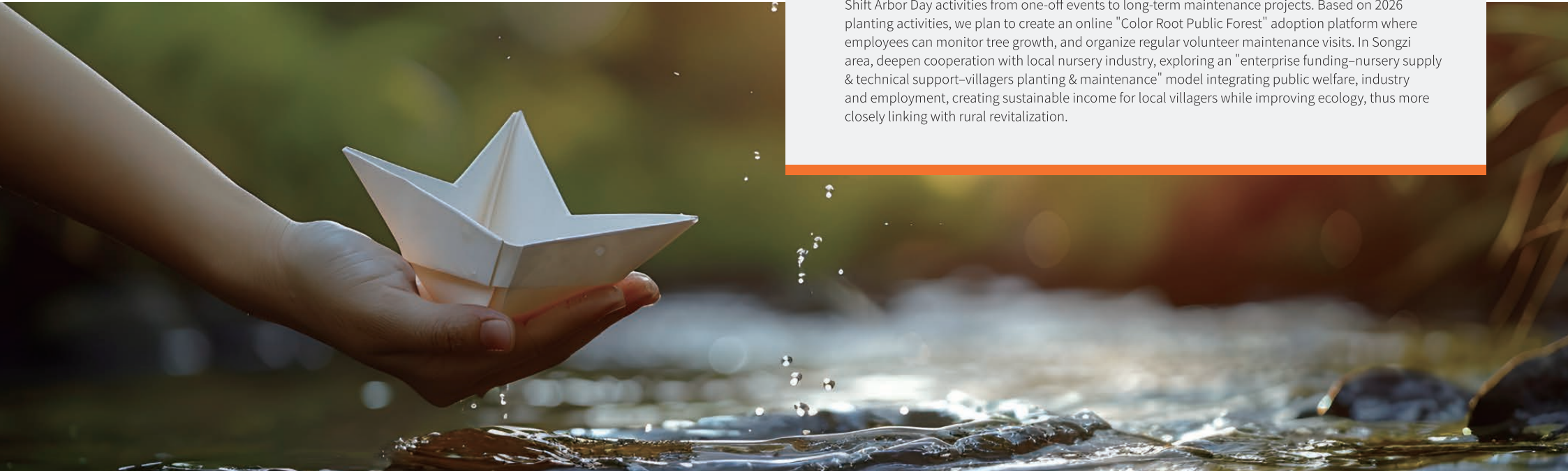
Launch the annual "Guard the Mother River" IP:

Songzi area: Building on the "Clean the Yangtze River, Beauty in Jingzhou" activity, and aligning with the 10-year anniversary of the Yangtze River Protection Initiative (2026), we plan to establish long-term cooperation with local environmental protection, water affairs, youth league committees and environmental NGOs. Besides routine cleanups, we will add "water environment monitoring & science corners" and "riverside ecological vegetation adoption zones" to enhance professionalism and public engagement.

Shayang area: Institutionalize the "Guard the Han River, Mother River" campaign. In addition to cleanups and replanting, we will cooperate with university environmental departments to conduct small-scale eco-surveys of the Han River (Shayang section), producing concise reports to provide community-based data references for local ecological protection.

Promote "Green Color Root" long-term reforestation mechanism:

Shift Arbor Day activities from one-off events to long-term maintenance projects. Based on 2026 planting activities, we plan to create an online "Color Root Public Forest" adoption platform where employees can monitor tree growth, and organize regular volunteer maintenance visits. In Songzi area, deepen cooperation with local nursery industry, exploring an "enterprise funding-nursery supply & technical support-villagers planting & maintenance" model integrating public welfare, industry and employment, creating sustainable income for local villagers while improving ecology, thus more closely linking with rural revitalization.



Community Participation

We firmly believe that an enterprise is an integral part of the community; our development cannot be separated from community support, and community prosperity requires enterprise engagement. Community participation serves as a key pathway to fulfill social responsibility and build harmonious government-enterprise and enterprise-people relations. We actively integrate into local community development, take part in various public welfare, cultural, and sports activities, enhance community cohesion with concrete actions, foster interaction among employees and between the enterprise and neighbors, and promote shared development and a better, livable community environment.

From 2026 to 2030, the company will build a long-term community co-building mechanism. Focusing on culture, sports, and public welfare, it aims to deepen community ties as a co-builder, service provider, and supporter, thus achieving synergy between corporate growth and community prosperity.

Cultural co-building, enriching community spiritual life

- Organize activities such as "Neighborhood Festival" "Reunion Feast" "Respect the Elderly" on traditional festivals, with employee volunteers involved in planning and execution to enhance neighborhood relations.
- Carry out "Science Popularization on Campus/Community" activities, technical experts and R&D staff form a science outreach team, visiting local primary/secondary schools and community classrooms to deliver lectures on dye chemistry, environmental science, green living, etc., sparking youth curiosity for science and disseminating green development concepts.

Sports co-building, supporting national fitness

- Continue to increase support for community sports events, sponsoring residents' sports meets, basketball leagues, badminton competitions, etc., providing materials and funds, while organizing employee teams to participate, using sports as a bond to strengthen communication and community cohesion.
- Upgrade community sports facilities in partnership with communities, replace aged fitness equipment, and plan small fitness corners, table tennis areas in vacant spaces, offering safer, convenient fitness conditions to help develop community-wide fitness.

Public welfare co-building, consolidating joint forces

- Jointly establish "Community Public Welfare Volunteer Service Teams" with community members, where employee volunteers and community volunteers regularly carry out activities such as environmental cleaning, waste sorting promotion, civilized travel guidance, and charitable assistance.
- Based on our green public welfare philosophy, launch "Green Lifestyle Creation" campaigns with communities, through waste sorting science, green planting experience, energy-saving tips, guiding residents toward eco-friendly living, jointly creating a green, pleasant, and beautiful community environment.

FUTURE: STEADY ACTION





THREE-YEAR STRATEGY

Deep Greening of Products

Core Initiatives

- Focus on cutting-edge areas such as low-carbon emission reduction dyes and Eco-friendly dyeing processes, establish a special R&D fund.
- Establish a product carbon footprint database to provide transparent carbon emission data to customers.
- Promote the entire product line to comply with international mainstream standards such as ZDHC and bluesign.

2028 Target

- Proportion of green product sales increased to over **80%**
Carbon footprint data of major products traceable

Industrialization of Circular Technologies

Core Initiatives

- Accelerate the large-scale application of waste salt and fly ash resource utilization technologies, expand to more hazardous waste categories.
- Explore chemical recycling technology for waste textiles, extend circular services downstream.
- Establish a packaging management platform to promote packaging reduction and recycling.

2028 Target

- Average annual revenue growth of resource utilization business of **10%**.
Packaging material recycling rate reaches **99%**.

Operational Carbon Neutrality Pathway

Core Initiatives

- Develop a greenhouse gas emission reduction roadmap and pathway.
- Expand green power procurement and self-built photovoltaic capacity, explore application of zero-carbon fuels such as green hydrogen.
- Promote supply chain carbon management, pilot supplier carbon performance assessment.

2028 Target

- Carbon emissions per unit product decreased by **20%** compared to 2022.

Organizational Resilience Strengthening

Core Initiatives

- Establish a talent pool for key positions to ensure sustainable core capabilities.
- Improve the digital management system for occupational health and safety to achieve intelligent risk warning.
- Integrate sustainable development indicators into the management performance evaluation system.

2028 Target

- Key position talent coverage rate reaches **100%**
Recordable incident rate remains the lowest in the industry.

Ecosystem Collaborative Co-creation

Core Initiatives

- Collaborate with upstream and downstream enterprises on joint R&D and application verification of low-carbon dyes.
- Participate in the formulation of group standards such as circular economy and green factory.
- Build a customer sustainability information disclosure support platform to help downstream brands reduce carbon emissions.

2028 Target

- Lead or participate in the formulation of more than **5** standards.
Coverage rate of serving customer carbon management needs reaches **50%**.

Key Challenge Tactics

1 > Carbon Tariffs and Green Trade Barriers

The EU Carbon Border Adjustment Mechanism (CBAM) has entered the implementation phase, posing new compliance requirements for export-oriented chemical enterprises. We will: establish a carbon cost accounting model to assess the impact of trade policies in advance; reduce the embodied emissions of products through process optimization and clean energy substitution; and cooperate with customers in reporting carbon data to reduce compliance costs.

2 > Stricter Circular Economy Regulations

Domestic "Zero-waste City" construction and hazardous waste control policies are continuously intensifying. We will: increase R&D investment in resource utilization technologies, extending from end-of-pipe disposal to the full cycle of "design-production-recovery"; explore high-value utilization pathways for by-products such as waste salt and waste acid to increase the added value of resource-based products; establish a traceable waste flow management system to ensure compliant operations.



3 > Pressure Transmission from Sustainable Supply Chains

Brand customers' ESG performance requirements for suppliers are becoming increasingly detailed. We will issue a "Supplier Sustainability Guide", incorporating environmental, human rights, health and safety requirements into procurement terms; provide supplier capacity building training to help small and medium-sized suppliers improve their ESG management level; use digital means to enhance supply chain transparency and achieve traceability of key raw material sources.

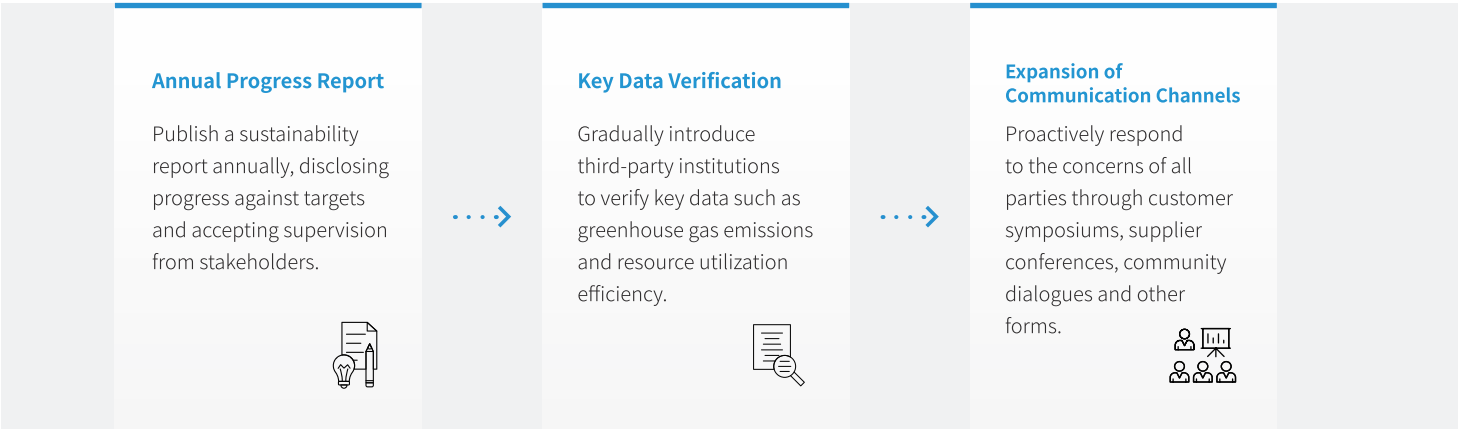
4 > Technology Iteration and Talent Competition

Green chemical technology is evolving rapidly, and competition for specialized talents is intensifying. We will: deepen "industry-university-research-application" collaborative innovation, jointly cultivate interdisciplinary talents with universities; establish internal technology incubation funds to encourage employees to carry out green micro-innovation; improve dual career paths for skill enhancement and professional development to enhance talent retention.

Green Public Welfare

We deeply understand that the value of a commitment lies in its fulfillment.
In the next three years, Color Root will establish a more transparent information disclosure mechanism:

The path to sustainable development has no end, only continuous new beginnings. Color Root will continue to uphold the strategic determination of "from green products to green industry chain", solve industry challenges with technological innovation, respond to social expectations with responsible action, and work with global partners to make the chemical industry a true creator of a better life.





B- Brilliant
追求卓越



R- Responsibility
勇于担当



I- Innovation
创新进取



G- Growth
共同成长



H- Honesty
诚实守信



T- Teamwork
团队合作

OUR VALUES

Bright

向阳 致远 成就客户



[Public QR Code]
Sweep the code for
attentionenjoy the service



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