

ООО «ТИ-СИСТЕМС» ИНЖИНИРИНГ И ПОСТАВКА ТЕХНОЛОГИЧЕСКОГО ОБОРУДОВАНИЯ
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Company Profile

Activated Carbon BU

福建元力活性炭股份有限公司
Fujian Yuanli Active Carbon Co., Ltd.

Brief Introduction

Fujian Yuanli Active Carbon Co., Ltd. (Stock Code: 300174) is an enterprise group contains business units of activated carbon, sodium silicate and precipitated silica. The company grows and develops based on the strategy of technology innovation and resources integration.

Year of Establishment: 1999

Date of Listing: 1st Feb., 2011

Number of Employees: 1567

Headquarter Location: Nanping, Fujian Province, China

Sales Revenue: CNY 1.6 billion



Business Units



Activated Carbon

The leading manufacturer with the largest production and sales volume in China.



Precipitated Silica

Joint venture with Evonik Industries AG.



Sodium Silicate

A leading manufacturer in China with stable product quality and excellent sales performance.



Silica Gel

Advanced production technology & Growing sales performance

Development Philosophy

---Green, Low-carbon and Circular Economy

Sustainable and Renewable Raw Materials

Sawdust, Wood chips, Bamboo shavings, Coconut shell, Walnut shell, Rice husk.

Biomass Energy Recovery and Utilization Technology

Waste heat produced from activated carbon production can be converted to high value-added and clean gas, which can be used in silicon and carbon industry.

Thermal Energy Step Utilization Technology

The secondary waste heat and the tertiary waste heat produced from silicon industry can be converted to steam, hot water and hot wind, which can be supplied to silicon and carbon industry and boiler project.

Electrolytic Technology

By electrolytic technology, sulfuric acid, phosphoric acid and caustic soda can be regained from the production and can be reused in silicon and carbon industry.

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Activated Carbon Business Unit

Distributed in 54 countries and regions

Capacity Layout



- ★ Activated Carbon HQ
- ▼ Activated Carbon Subsidiaries & Plants

Activated carbon is Yuanli's core business, with current six production bases located from south to north in China. Yuanli's annual capacity will reach 125,000 MT in 2022, which guarantees a shorter lead time and more efficient logistics services. The company is planning to expand the annual capacity upto 150,000 MT within 2025.

LX plant (HQ): 33,000 MT (currently), 58,000 MT (within 2025)

LZ plant in Fujian: 48,000 MT

LY plant in Fujian: 12,000 MT

HYS plant in Jiangxi: 10,000 MT

MZL plant in Inner Mongolia: 10,000 MT

XJH plant in Shanghai: 12,000 MT

Technical Competence

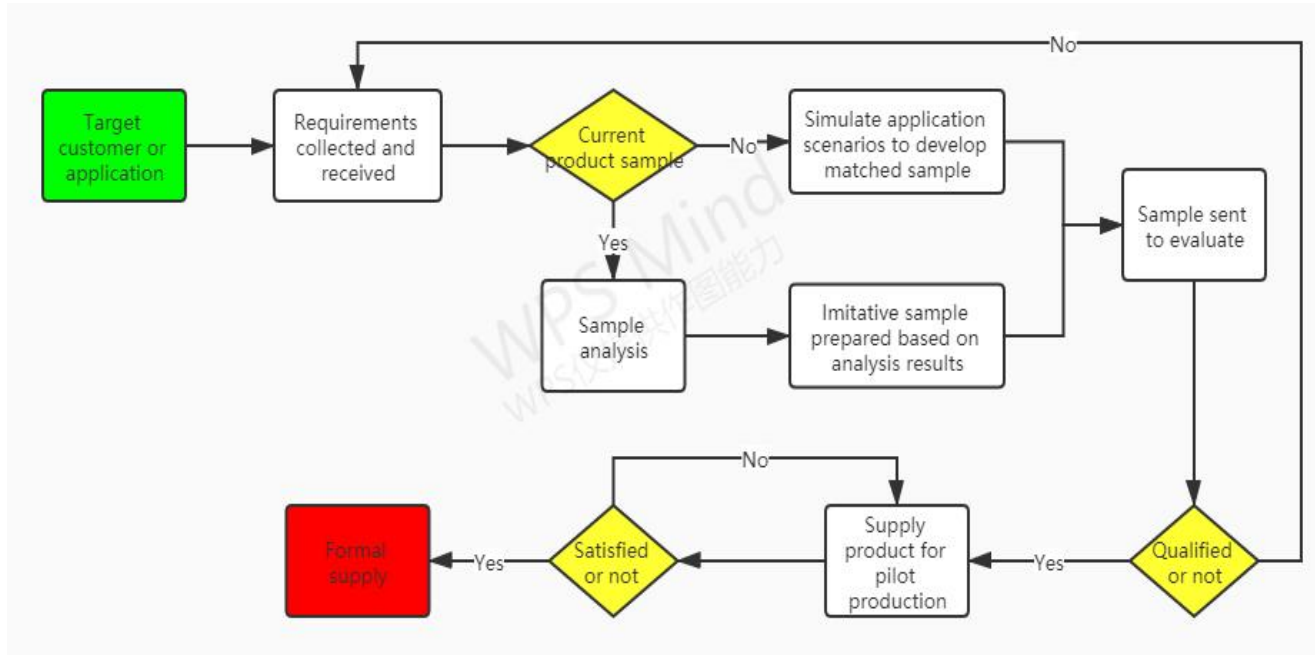
The key competitive advantage of Yuanli is the technical competence, 5-10% of the sales revenue has been invested into the technology innovation in the past 10 years.

- More than 200 technical talents and 67 proprietary technologies;
- National key laboratory and activated carbon R&D center;
- D-grade dust-free workshop for pharmaceutical applications;

Yuanli's technical center is capable of analyzing and testing activated carbon products on the basis of GB/T, ASTM, JIS, JECFA and other test methods.



Customer & Product Development



Based on existing new customer, product and application development process, Yuanli is able to coordinate with customers by its technical service to improve production efficiency and reduce the comprehensive cost.

Following analysis equipments can be employed during the development according to application scenarios.



Adsorption & Desorption Simulation Equipment



ICP-OES for metal ion, ppb grade



ASAP 2460 for surface area & pore analysis

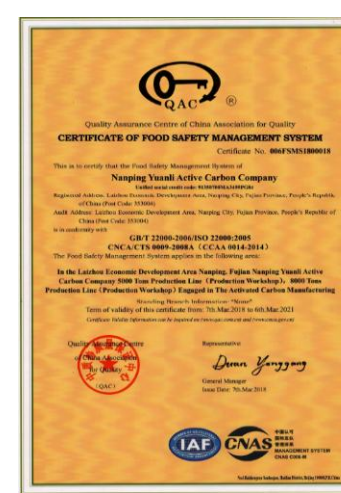


Mastersize 3000 for particle size distribution



International Certificates

- ISO 22000: 2018
- ISO 9001: 2015
- ISO 14001: 2015
- ISO 45001: 2018
- AEO
- NSF 42&61
- MUI Halal
- Kosher



Product Series

Based on different raw materials and production processes, Yuanli is able to supply variety of products with different characteristics, in order to satisfy diversified demands from customers.

- ◆ **YL-100 Series: Amino acid industry;**
- ◆ **YL-303 Series: Food ingredients, Beverage, Brewing, Chemicals;**
- ◆ **YL-500 Series: Food ingredients, Water treatment;**
- ◆ **YL-600 Series: Food ingredients, Chemicals, Brewing, Pharmaceuticals;**
- ◆ **YL-700 Series: Food ingredients, Chemicals, Pharmaceuticals;**
- ◆ **IGD Series: Flue gas treatment;**
- ◆ **IGL Series: Waste water treatment;**
- ◆ **PremSorb Series: Food ingredients, Chemicals;**
- ◆ **GRW Series: VOCs treatment;**
- ◆ **HES Series, HEM Series: Solution recovery, Air purification;**
- ◆ **PAX Series: Fuel evaporative emission control;**
- ◆ **DR Series: Super capacitor;**
- ◆ **Honeycomb Series: VOCs treatment;**



PAC



EAC



GAC



Honeycomb

New Generation Product

GRW series, HES series and HEM series are the latest products successfully developed and promoted in the market in 2020. The products are wood based and widely applied in VOCs treatment and air purification. Compared with current coal based products in the market, these products can provide higher activity and purity, the characteristics of lower density and faster adsorption & desorption may improve customers' production and economical efficiency.

Product	GRW4050	Coal based product
Iodine No. mg/g	950 min	900 min
CTC %	50 min	50 min
Moisture %	5 max	5 max
Ash %	8 max	15 max
Density g/ml	0.42±0.03	0.50±0.05
Hardness %	96 min	97 min
Diameter mm	4	4

Product	HES4080	Coal based product
Iodine No. mg/g	1150 min	1050 min
CTC %	80 min	80 min
Moisture %	5 max	5 max
Ash %	5 max	12 max
Density g/ml	0.42±0.03	0.50±0.05
Surface area m ² /g	1200 min	1050 min
Hardness %	95 min	95 min
Diameter mm	4	4

Product	HEM4100	Coal based product
Iodine No. mg/g	1150 min	1050 min
CTC %	100 min	90 min
Moisture %	5 max	5 max
Ash %	5 max	12 max
Density g/ml	0.40±0.03	0.50±0.05
Surface area m ² /g	1200 min	1050 min
Hardness %	95 min	95 min
Diameter mm	4	4

Applications and Partners

Rely on variety of products, outstanding quality and services, Yuanli's sales volume reached 114,000 MT in 2021, which were distributed into 54 countries and regions and has built solid partnerships with some leading companies in different industries.



Food & Beverage



Pharmaceuticals



Water Treatment



Environmental Protection



Fine Chemicals



Energy Storage



Typical Products for Applications

In applications of food ingredients and APIs, besides considering the adsorption performance, some industry leaders also pay more attention into their production efficiency and yield. PremSorb series products are specifically designed for this purpose. PremSorb uses selected sawdust as raw material and has advanced pore structure, which leads to high adsorption, high purity and fast filtration rate.

Typical Specification of PremSorb Series

Molasses Index	0.45-0.58
Methylene Blue ml/0.1g	17 min
Caramel %	110 min
Surface area m ² /g	1700 min
Ash %	3 max
Iron content ppm	150 max
Filtration rate ml	110 min
Particle Size	D10: 12um min D50: 40-50 um



Typical Products for Applications

In the application of flue gas treatment, the main purpose is to remove or reduce toxicity of dioxin. IGD-90 is a powdered activated carbon product and specifically designed for waste incineration plants. It has characteristics of high surface area and low density, which provides high adsorption efficiency of dioxins, furan and polychlorinated biphenyl.

According to the data from recent cases, in the context of meeting emission standards, IGD-90 can help customers reduce the dosage of activated carbon, the composite cost can be reduced by 40%.

Typical Specification of IGD-90

Iodine No. mg/g	1000 min
Apparent Density g/ml	0.24±0.03
Particle Size	D50: 20um
Surface area m ² /g	1350 min
Toxicity adsorption efficiency of dioxin %	92 min



Typical Products for Applications

In the application of waste water treatment, the main purpose of customer is to reduce COD and charomaticity of discharge water. IGL is a powdered activated carbon product and designed for waste water treatment application, particularly for printing & dyeing waste water and coking wastewater. It has characteristics of advanced pore structure, which provides a high cost performance for customers.

Typical Specification of IGL

Iodine No. mg/g	1100 min
Methylene Blue ml/0.1g	17 min
Caramel %	125 min
Particle Size	D50: 20-25 um



绍兴柯桥水务集团有限公司
SHAOXING KEQIAO WATER GROUP CO.,LTD.

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Thank you for your attention!



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