

ZHONGYUAN GROUP



Recoyarns NATURE CREATES
WE RECREATE

01



Group Introduction



Zhongyuan Group is a large-scale production and trading enterprise focusing on rPET chips and recycled polyester filaments. It has a high-end recycled chemical fiber registered brand - Recoyarns. Its subsidiaries include Jiangsu Yongyin Chemical Fibre Co., Ltd., Yizheng Zhongxing Environmental Protection Technology Co., Ltd. and Zhongyuan International Trading (Shanghai) Co., Ltd. At present, the production capacity of rPET chips is 200,000 tons/year and the production capacity of recycled polyester filaments is 100,000 tons/year. As the earliest enterprise in China to engage in rPET chip granulation and recycled polyester spinning, Zhongyuan has accumulated more than 20 patents related to recycling.



02

Group Members



► QIDONG ◀

Jiangsu Yongyin Chemical Fibre Co., Ltd.



► YIZHENG ◀

Yizheng Zhongxing Environmental Protection
Technology Co., Ltd.



► SHANGHAI ◀

Zhongyuan International Trading
(Shanghai) Co., Ltd.



- 1 Made from 100% post-consumer PET bottle flakes.
- 2 Using mechanical recycling process, which means low cost, low energy consumption, low carbon emission, no chemical residues and by-products, etc.





One-Stop
Services

After-Sales
Support

Reco-in Tracing
Technology

1

Offer **one-stop products** and **service** solutions, provide customization according to client needs.

2

Provide **after-sales technical** support to clients.

3

Deliver **Reco-in tracing technology** to qualitatively and quantitatively track downstream and end products to ensure their safety, uniqueness and traceability.

The earliest rPET chips and recycled polyester yarns manufacturer in China

2014



▶ Global Recycled Standard GRS

◀ OEKO-TEX Standard 100



2016

2020



▶ Intertek Green Leaf Certification

◀ CCFA Green Fiber Certification



2021



1



2



3



4



5



5



5

1 High-tech Enterprises

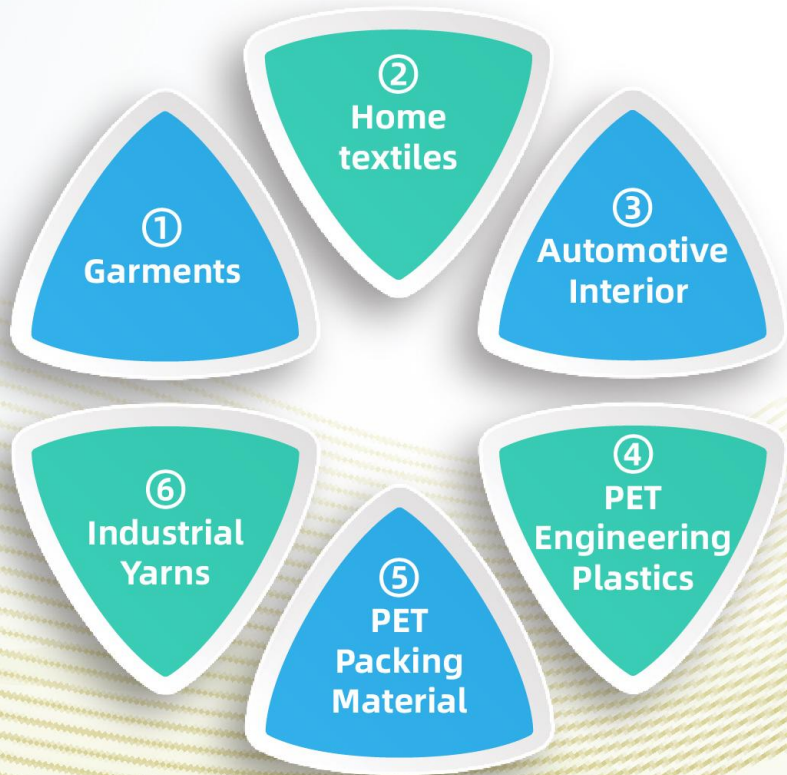
2 CFWA Recommended Supplier

3 The compiling unit of "Evaluation Requirements for Green Factories in the Physically Recycled Plastics Industry"

3 The compiling unit of "Evaluation Requirements for Green Factories in the Recycled Polyester Industry"

4 ISO Environment, Quality, Occupational Health Management System Certification

5 Member of the Textile Exchange





RBR

RFD & RSD

Application

- **PET Engineering Plastics** | Laptop cases, Printer cases, etc.
- **PET Packing Material** | Foaming, Films, Sheets, Bottles, etc.
- **Industrial Yarn** | Conveyor Belts, Canvas, Tire Cords, Seat Belts, Airbags, etc.

- **Garments & Home Textiles**

Polyester Filament POY, DTY, FDY, Composite Filament, Sea-island Filament, etc.

- **Automotive Interior**

Roof Fabrics, Seat Fabrics, etc.

Viscosity

0.74 ± 0.01

0.84 ± 0.02

1.08 ± 0.02

0.70 ± 0.01

RFD

0.50 ± 0.015 RSD

0.67 ± 0.01 RSD

0.735 ± 0.01 RSD

0.88 ± 0.02 RSD



Passed the detection of hazardous substances under the EU RoHS standard

Passed the detection of Substances of Very High Concern (SVHC) under the EU Reach regulations





1

POY/DTY/FDY

Quality comparable to virgin polyester, recognized and purchased by global brands



2

Dope Dyed

Customized production, better color fastness, no-need for traditional dyeing process



3

Functional

Bio-degradable, Flame Retardant, Cationic Dyed, Graphene, Anti-Bacterial



Bio-degradable



Flame Retardant



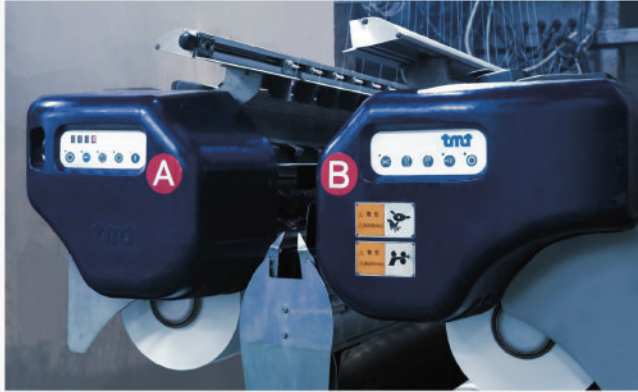
Cationic Dyed



Graphene



Anti-Bacterial



TMT FDY Winder



Barmag EFK1000
Texturing Machine



Barmag Wings
POY Winding System





Cooperating Brands

Coca-Cola®

TESCO

ZARA

H&M

IKEA®

LI-NING

NIKE

'TORAY'





LCA is an important tool to assist companies in quantifying the environmental footprint of a product. Through the implementation of product environmental footprint evaluation, an objective understanding of energy consumption/carbon emissions in the product life cycle can be obtained, which can help companies understand the high energy consumption links in the product life cycle, improve product design, improve efficiency and reduce costs.

It has been proven that for every kilogram of rPET chips produced, compared to virgin polyester chips, greenhouse gas emissions can be reduced by up to **73%**, cumulative energy consumption can be reduced by up to **87%**, and water consumption can be reduced by up to **53%**. For every kilogram of recycled polyester fiber produced, greenhouse gas emissions can be reduced by up to **45%** compared to virgin fibers, cumulative energy consumption can be reduced by up to **71%**, and water consumption can be reduced by up to **34%**.



Intertek



Our capacity of 200,000 tons/yr Recoyarns® recycled products reduce (in maximum):

01 CO2 emission

369 million kgs, Equiva-
lent to planting 16.75 mil-
lion trees

02 Energy consumption

12.39 billion MJ, Equiva-
lent to saving 422,900 tons
of standard coal

03 Water consumption

1.08 million m³, Equiva-
lent to 571 standard pools

04 Petroleum related
material

1.2 million tons

05 Waste plastic
bottles

10 billion



At present, with their excellent quality, the Recoyarns rPET chips and recycled polyester filaments have been exported to more than **ten countries** including not only traditional textile powerhouses such as **South Korea, Taiwan, Vietnam**, but also as far as **Africa and Central** and **South America**.





Make the sky bluer, Make the earth greener

nature creates we recreate