



Qingdao Rizhirong Plastic Products Co., Ltd.





























































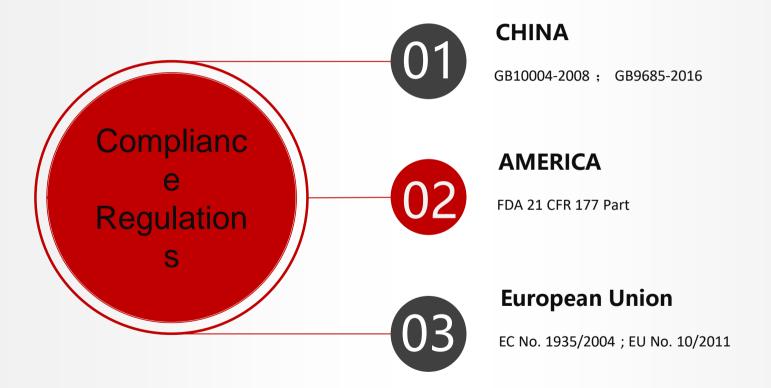


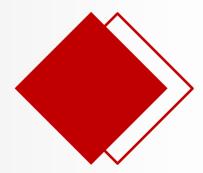
ISO9001-2015

**HACCP** 

BRC

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## Flexible Packaging

- Hardware Facilities for Flexible Packaging
- Introduction to Flexible Packaging Products





Japan's Fuji MD High-Speed Gravure Printing Line and 6 others, 7-10 colors, printing width of 500mm-1300mm, speed of 350m/min Equipped with environmental protection facilities such as RTO, and equipped with a fully automatic quality inspection system.



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Nine Lines Including Nordmeccanica from Italy and Fuji from Japan, Solventless and Dry Lamination, Capable of Laminating High Tension Sheets, Equipped with Environmental Protection Facilities Such as RTO More than 20 units of Japanese Kataoka slitting and inspection machines, capable of slitting thick films, 8 lines of 2.3-meter-wide 3-layer co-extrusion PE blown film lines. Slitting speed of 400m/min, vertical and horizontal laser tear lines, fully automatic CCD camera inspection.



More than 40 units of bag-making machines including Totani from Japan, equipped with the production capability for complex bag types such as square bottom bags

软包装硬件设施

#### Soft packaging specialty products





Breast milk storage bags (microwave sterilizable, reusable up to 20 times), bottle sterilization bags





- Paper-plastic composite bag
- •Pure paper: Paper instead of plastic, recyclable and compostable

- Single-material recyclable: Fully recyclable PE; Fully recyclable PP; Fully recyclable PET
- Compostable and biodegradable: PLA/PBAT
- •Pure paper: Paper instead of plastic

#### Equipment and gear



### Sheet extrusion machine

More than 20 units of 3-9 layer multi-layer co-extrusion sheet extrusion machines are available, equipped with high barrier EVOH co-extrusion capability, ensuring more uniform mixing with twin-screw technology and minimal thickness variation. Renowned brands include German Battenfeld and Taiwanese Shang To Chin

#### Molding machine

Over 50 molding machine production lines, featuring industry-renowned brands such as Japan's Asano, Germany's KIEFEL, Germany's ILLIG, and Taiwan's Cheng Mei.

Cup forming machine, cup printing machine, lid printing machine

Nearly 20 production lines featuring Germany's ILLIG, Netherlands' VANDAM cup forming machines, cup printing machines, and lid printing machines, among others.



# Sustainable Packaging Overview

Carbon Reduction Series

#### Recyclable, biodegradable, and other sustainable packaging options



Transitioning from multiple material combinations to a single recyclable material solution

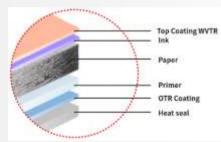
Physical PCR Chemical PCR -Bio-based, Petroleum-based



PCR

PLA, PBAT,PBS, PHA





Paper-based alternatives to Sustainab le packaging solutions

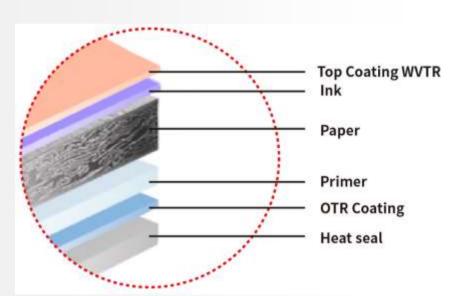
Organic biological anaerobic degradation, mineral enzyme degradation Corn starch, cassava starch, plant fibers, PBAT (polybutylene adipate terephthalate), PBS (polybutylene succinate), PHA (polyhydroxyalkanoates), pulp molding





Both recyclable and fully biodegradable









RTO
(Regenerative Thermal
Oxidizer) VOC system with heat storage oxidation combustion





Environmentally friendly Energy-saving and environmentally friendly

#### **OUR HISTORY AND PURPOSE**

- The Qingdao factory has passed environmental audits and social responsibility audits from companies such as Unilever, Walmart, Philips, and others.
- The Nantong factory and subsequent factories all utilize solar street lights, with partial solar power generation locally.
- The Qingdao flexible packaging factory has invested over 10 million RMB in a VOCs (Volatile Organic Compounds) system, utilizing ESO (Energy-Saving Oxidizer) + RTO (Regenerative Thermal Oxidizer) heat storage oxidation combustion method for treatment.

This VOC system forms a clean, environmentally friendly, and energy-efficient closed-loop system: ESO concentrates VOCs  $\rightarrow$  RTO heat storage oxidation combustion  $\rightarrow$  circulation of hot water to provide a heat source for printing and laminating machines  $\rightarrow$  energy recycling.

- All factories have UV curing and activated carbon air filtration systems installed throughout the workshops.
- Environmentally friendly materials: Degradable: PLA, PBAT, PBS, pulp molding, mineral enzyme degradation, and other environmentally friendly methods.

Paper instead of plastic: Using a series of water-based coatings to achieve paper-based alternatives to plastic in flexible packaging, recyclable and compostable.

Recyclable: Achieving 100% recyclability using a single material formulation.





Thank you