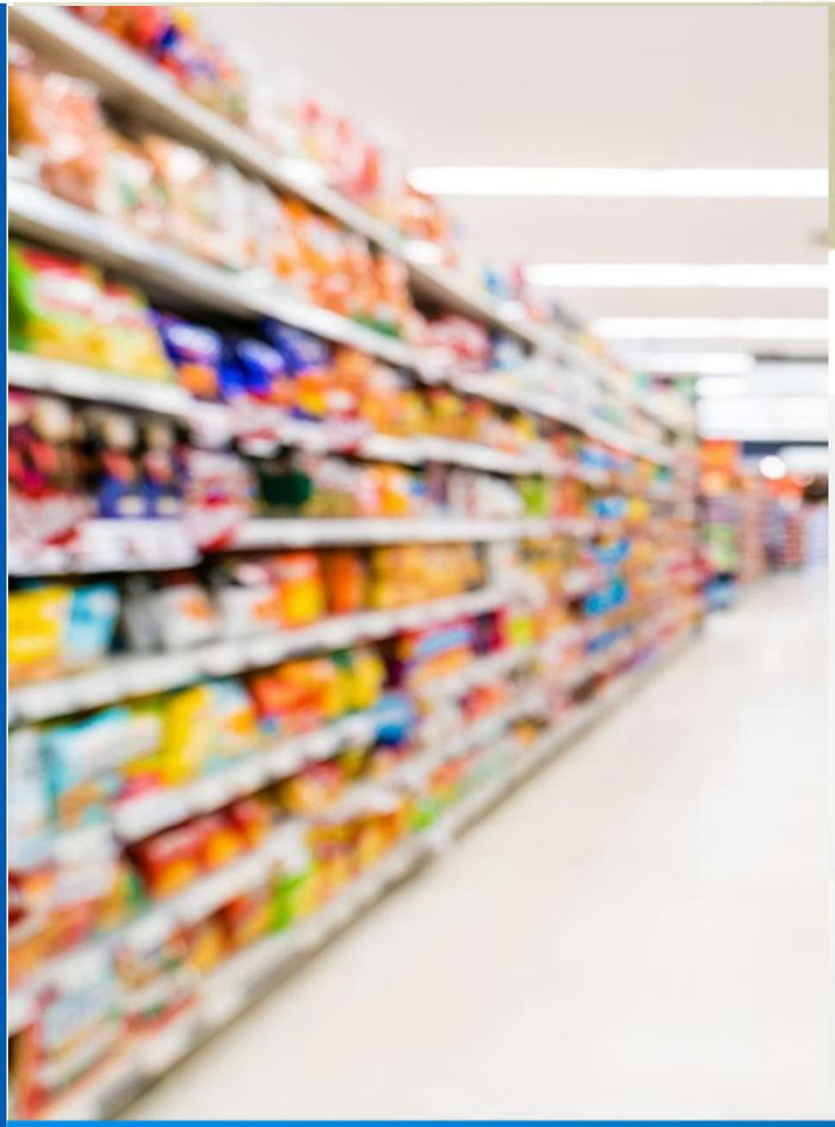
LOGOS PACKAGING

TECH | TREND | 2023 Q4



YOUR BEST PACKAGING PARTNER

LOGOS PACKAGING

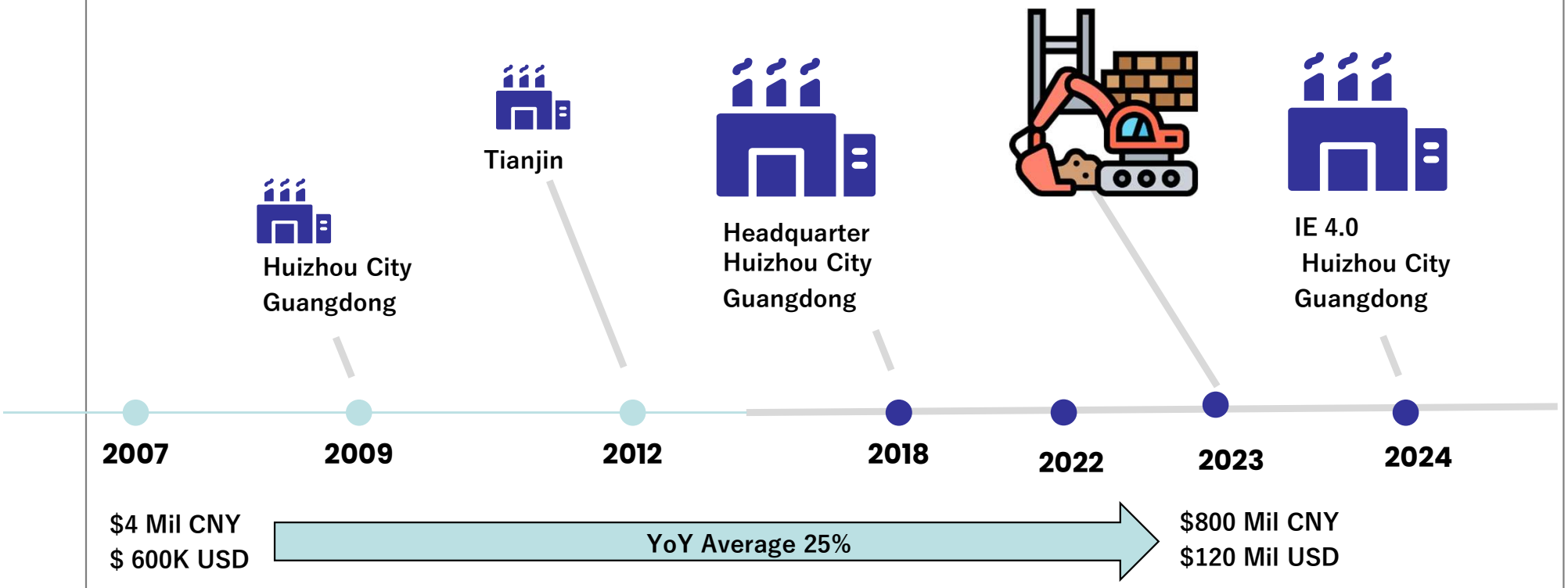
Work Local Serve Global

LOGOS Factory Headquarters Located at:

HUIZHOU

LOGOS PACKAGING

MILESTONES



Company Culture
Gong Hao
Continuous Learning

Retort Packaging
Spout Pouch Packaging
High-End Value Packaging

Recyclable Packaging
Circular Economy
Low Carbon Manufacturing

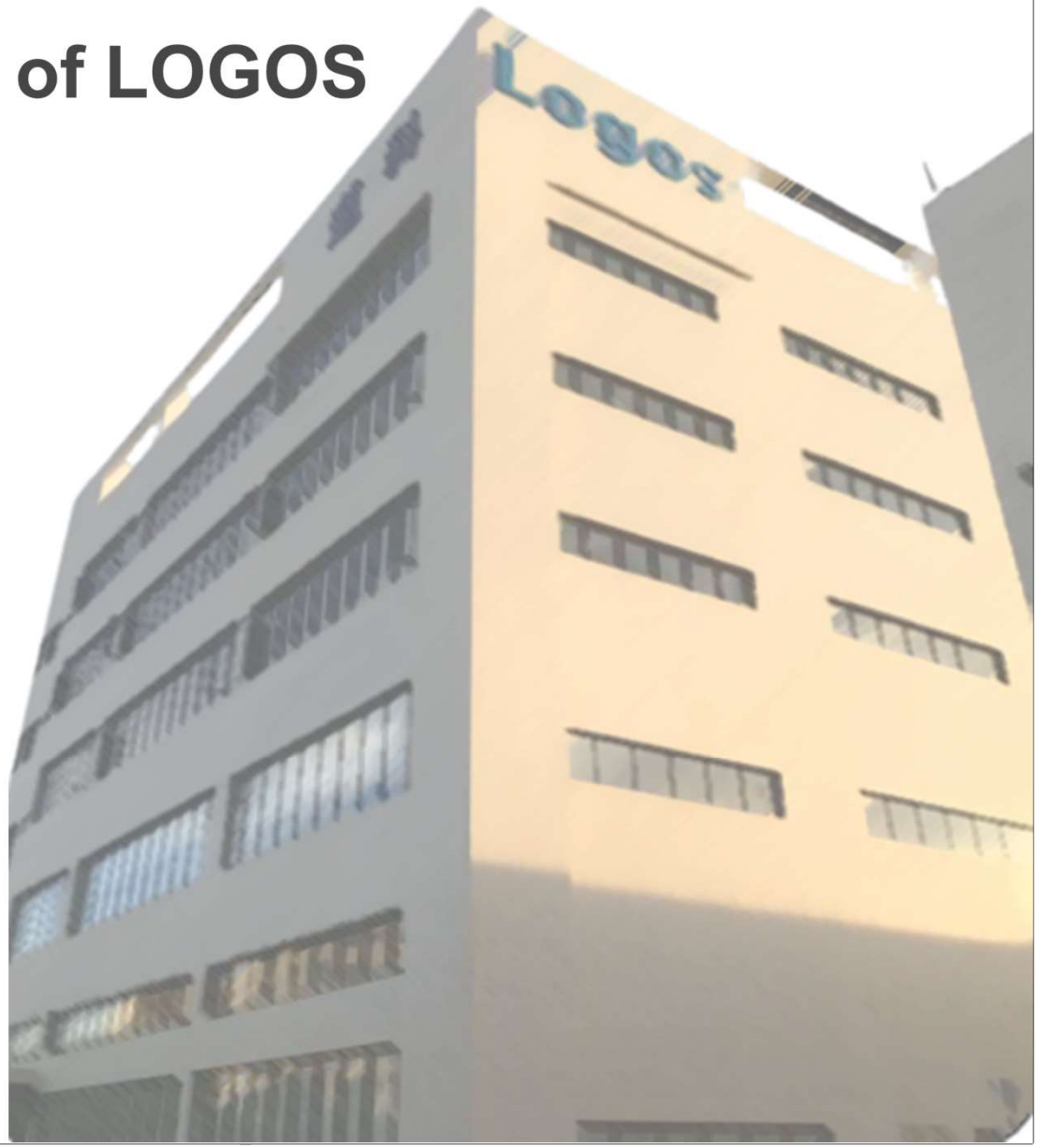
Personnel Structure of LOGOS

65
Patent Items

550+
Employees

3.5%+
R&D Expenditure

18 People
R&D Team



Huizhou Headquarter Facilities

Global Recognized Certification

Certificates on schedule before June.2024

Global Recycled Standard
©TextileExchange

ISCC
International Sustainability & Carbon Certification

CARBON FOOTPRINT ISO 14067

ISO 14064

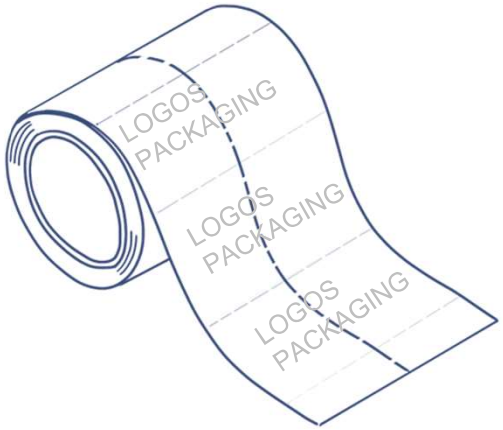
LOGOS PACKAGING

Your desired packaging formats

Stand Up
Zipper Bag

Spouted Bag

Flat Bottom Bag
Box Pouch

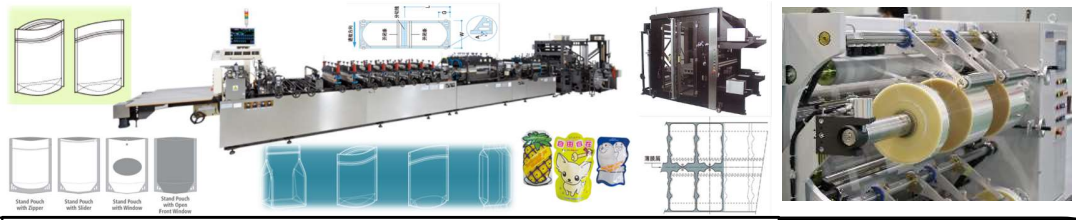


Roll Stock

LOGOS

LOGOS PACKAGING

Huizhou Factory



WAREHOUSE

Entry Lobby

Wind Shower Room

Pouch Making

Slitting

Rotogravure Printing Room 1

Rotogravure Printing Room 2

Rotogravure Printing Room 3

Lamination Room 1

Lamination Room 2

Huizhou Factory

LOGOS PACKAGING

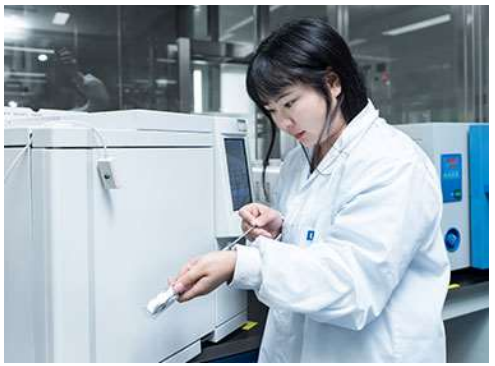
Certificate of Analysis

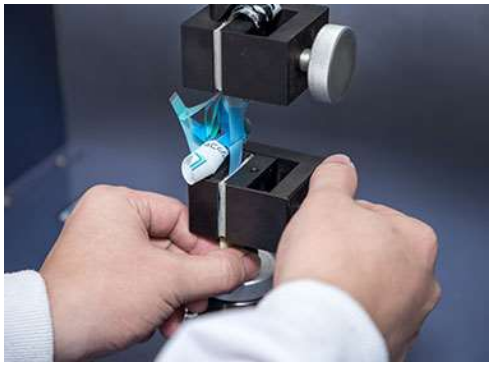
Record #: KE12/LC0202R01

Customer		Supplier	Logos Packaging Huizhou Co., Ltd.
PO#		Batch#	HPA19040326
Product Description	2L Spout pouch for windshield glass liquid	Part #	912886
Structure	PET 12/NY15/WPE150	Qty	
Dimension	220x(310+65) mm	Manufacture Date	6/5/2019

Items		Unit	Specification	Methods	Results	Single Evaluate
1. Appearance Inspection						
1.1 colour			Standard	Visual	OK	Pass
1.2 Appearance			No Defect	Visual	OK	Pass
1.3 Barcode				Barcode Machine	A	Pass
1.4 Packing				Visual	OK	Pass
2. Dimension						
2.1 Thickness		μm	181±8%	GB/T 6672-2001	174-184	Pass
2.2 Yield		g/m2	179.9±8%	GB/T451.2-2005	180-182	Pass
2.3 Length		mm	310±2	GB/T 6673-2001	309-310	Pass
2.4 Width		mm	220±2	GB/T 6673-2001	220	Pass
2.5 Bottom Gusset		mm	65±1	GB/T 6673-2001	64-66	Pass
2.6 Side Seal Width		mm	10±1	GB/T 6673-2001	9.0-10.0	Pass
2.7 Bottom Seal Width		mm	10±1	GB/T 6673-2001	9.0-10.0	Pass
2.8 TOP Seal Width		mm	10±1	GB/T 6673-2001	9.0-10.0	Pass
3. Technical Specification						
3.1 Bond Strength	PET/NY	N/15mm	≥1.2	GB8808-88	1.4-1.6	Pass
	NY/WPE	N/15mm	≥6.0	GB8808-88	7.2-9.5	Pass
3.2 COF	inner/inner		≤0.4	GB 10006-88	0.38	Pass
3.3Seal Strength		N/15mm	≥40	QB/T2358-98	88-111	Pass
3.4 Retained Solvent		mg/m2	≤5.0	GB/T 10004-2008	1.8	Pass
3.5 Drop Test			No leakage	0.8m * 3 Times	No leakage	Pass
3.6 Pressure Test			No leakage	50kg * 1 min	No leakage	Pass
3.7 Vaccum test			No leakage	- 0.08Mpa * 1 min	No leakage	Pass
Report Result: Pass !						

Issue Date:2019-05-06 QC:Duan Gui Jiao Approved By: Wang Xiang Qin





LOGOS PACKAGING

Major Markets of LOGOS Packaging Markets

Human Food FMCG

RTE| Sauce & Snack | Baby Fruit | Dairy | Condiment | Whey Protein | Coffee

Baby Cap
Hot Fill
Pasteurization
Max 95 ℃
Cool 4-10 ℃

Baby Cap

Standard Cap

LOGOS PACKAGING

Major Markets of LOGOS Packaging Markets

Pet Food

Dry Pet Food | Wet Pet Food Pet | Treats Pet Supplement | Wet Snack | Cat Litte

LOGOS PACKAGING

Major Markets of LOGOS Packaging Markets

Household & Car Chemical

Detergent | Shampoo | Baby Products | Laundry | Windshield

Varieties of Reclose Features

- **Spout fitment Reclose**
  - 8.5mm
  - 10mm
  - 15mm
  - 20mm
  - Standard cap
  - Anti-choking cap
  - Anti-spilling valve

- **Zipper Reclose**
  - Standard press-to-close zipper
  - Pocket zipper (pull Tap zipper)
  - Top Slider
  - Easy Lock (hook and loop)

Global Partners of LOGOS

Sustainable Development of LOGOS

Sustainable Development of LOGOS Packaging

Recyclable packaging is becoming increasingly important in the current market.

Sustainability Development is important requirement in **The 2030 Agenda for Sustainable Development**, adopted by the United Nations.

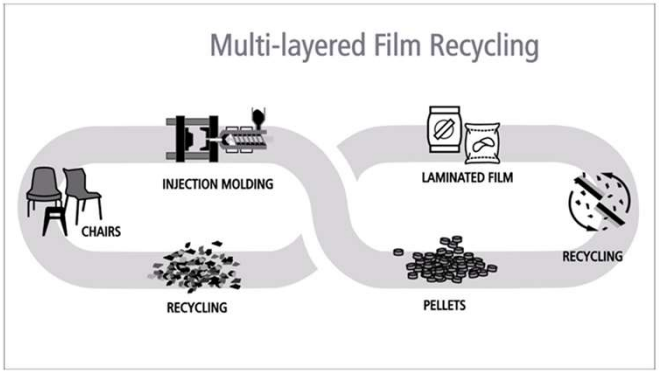
Now more than 70% MNCs in Top500 such as Unilever, Pepsi and Mars have launched the goal of Sustainability Development.

LOGOS PACKAGING

Sustainable Development of LOGOS Packaging

LOGOS adapted Recyclable laminates to realize Recyclable Packaging solutions

Recyclable laminates are designed to be easily recyclable by using materials (mono-material) that can be efficiently separated and processed.



The UK Plastics Pact Targets By 2025

- *100% of plastic packaging to be reusable, **recyclable** or compostable*
- *70% of plastic packaging effectively recycled or composted*
- *30% average recycled content across all plastic packaging*

In 2018, Australian Environment Ministers established the following 2025 National Packaging Targets:

- *100% of packaging to be reusable, **recyclable** or compostable*
- *70% of plastic packaging to be recycled or composted*
- *50% of average recycled content included in packaging*

LOGOS PACKAGING

Sustainable Development of LOGOS Packaging

LOGOS's Recyclable Packaging Solution is transforming traditional Multilayer into recyclable friendly Mono-Material

1. Multilayer PET/PE
   ⟹ Mono-material PE/PE or PE/PE-EVOH(Mono-PE)

2. Multilayer PET/MPET/PE
   ⟹ BOPP/MET-OPP/CPP (Mono-PP)

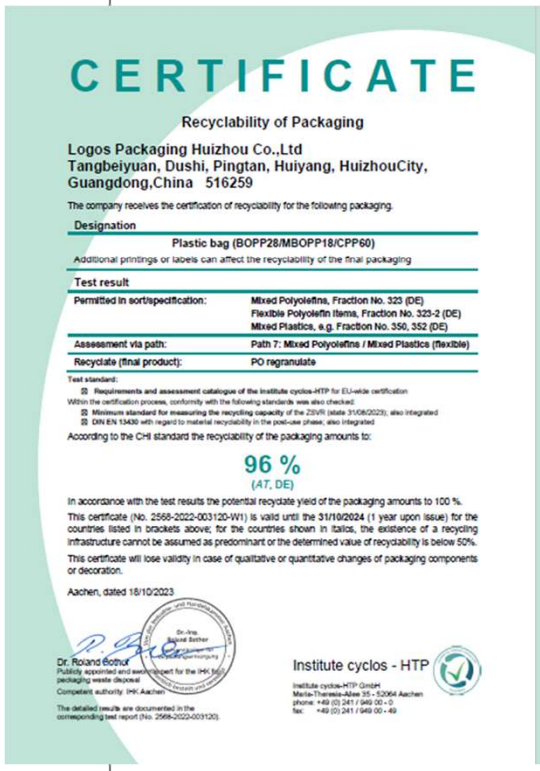
3. For Pouch Packaging, LOGOS offers Mono PE Material Hot Fill Pasteurization Pouch (PE/PE).

4. Mono PP material Retort Pouch BOPP/HB-BOPP/WCPP

LOGOS PACKAGING

LOGOS Recyclable Packaging Solution

BOPP-MOPP-CPP



CERTIFICATE

Recyclability of Packaging

Logos Packaging Huizhou Co.,Ltd
Tangbeiyuan, Dushi, Pingtan, Huiyang, HuizhouCity,
Guangdong,China 516259

The company receives the certification of recyclability for the following packaging.

Designation

Plastic bag (BOPP28/MBOPP18/CPP60)

Additional printings or labels can affect the recyclability of the final packaging

Test result

Permitted in sort/specification:	Mixed Polyolefins, Fraction No. 323 (DE) Flexible Polyolefin Items, Fraction No. 323-2 (DE) Mixed Plastics, e.g. Fraction No. 350, 352 (DE)
Assessment via path:	Path 7: Mixed Polyolefins / Mixed Plastics (flexible)
Recyclate (final product):	PO regranulate

Test standard:
☒ Requirements and assessment catalogue of the institute cyclos-HTP for EU-wide certification
Within the certification process, conformity with the following standards was also checked:
☒ Minimum standard for measuring the recycling capacity of the ZSVR (state 31/08/2023); also integrated
☒ DIN EN 13430 with regard to material recyclability in the post-use phase; also integrated

According to the CHI standard the recyclability of the packaging amounts to:

96 %
(AT, DE)

In accordance with the test results the potential recyclate yield of the packaging amounts to 100 %.

This certificate (No. 2568-2022-003120-W1) is valid until the 31/10/2024 (1 year upon issue) for the countries listed in brackets above; for the countries shown in italics, the existence of a recycling infrastructure cannot be assumed as predominant or the determined value of recyclability is below 50%.

This certificate will lose validity in case of qualitative or quantitative changes of packaging components or decoration.

Aachen, dated 18/10/2023

Dr. Roland Bothor
Publicly appointed and sworn expert for the IHK field packaging waste disposal
Competent authority: IHK Aachen

The detailed results are documented in the corresponding test report (No. 2568-2022-003120).

Institute cyclos - HTP
Institute cyclos-HTP GmbH
Maria-Theresia-Allee 35 - 52064 Aachen
phone: +49 (0) 241 / 949 00 - 0
fax: +49 (0) 241 / 949 00 - 49

BOPP-HB PP-CPP

CERTIFICATE

Recyclability of Packaging

Logos Packaging Huizhou Co.,Ltd
Tangbeiyuan, Dushi, Pingtan, Huiyang, HuizhouCity,
Guangdong,China 516259

The company receives the certification of recyclability for the following packaging.

Designation

Plastic bag (BOPP28/SiOx BOPP18/CPP100)

Additional printings or labels can affect the recyclability of the final packaging

Test result

Permitted in sort/specification:	Mixed Polyolefins, Fraction No. 323 (DE) Flexible Polyolefin Items, Fraction No. 323-2 (DE) Mixed Plastics, e.g. Fraction No. 350, 352 (DE)
Assessment via path:	Path 7: Mixed Polyolefins / Mixed Plastics (flexible)
Recyclate (final product):	PO regranulate

Test standard:
☒ Requirements and assessment catalogue of the institute cyclos-HTP for EU-wide certification
Within the certification process, conformity with the following standards was also checked:
☒ Minimum standard for measuring the recycling capacity of the ZSVR (state 31/08/2023); also integrated
☒ DIN EN 13430 with regard to material recyclability in the post-use phase; also integrated

According to the CHI standard the recyclability of the packaging amounts to:

98 %
(AT, IT, DE)

In accordance with the test results the potential recyclate yield of the packaging amounts to 100 %.

This certificate (No. 2568-2022-003121-W1) is valid until the 31/10/2024 (1 year upon issue) for the countries listed in brackets above; for the countries shown in italics, the existence of a recycling infrastructure cannot be assumed as predominant or the determined value of recyclability is below 50%.

This certificate will lose validity in case of qualitative or quantitative changes of packaging components or decoration.

Aachen, dated 18/10/2023

Dr. Roland Bothor
Publicly appointed and sworn expert for the IHK field packaging waste disposal
Competent authority: IHK Aachen

The detailed results are documented in the corresponding test report (No. 2568-2022-003121).

Institute cyclos - HTP
Institute cyclos-HTP GmbH
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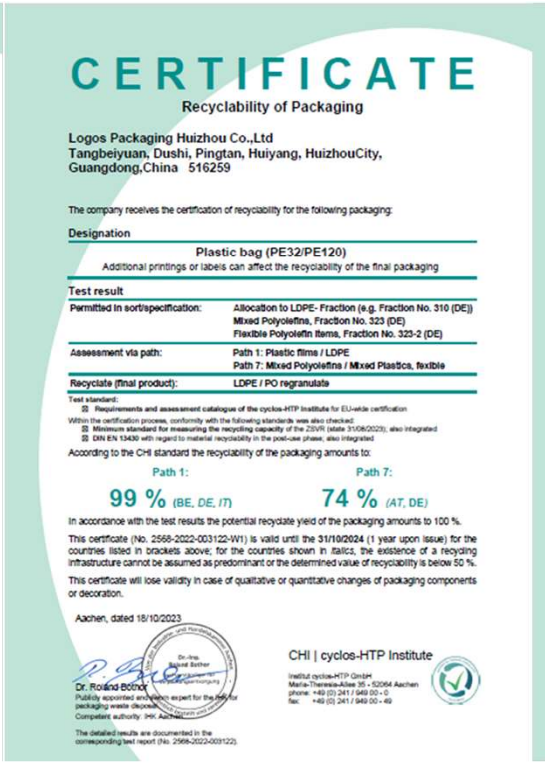
PE-PE



CERTIFICATE

Recyclability of Packaging

Logos Packaging Huizhou Co.,Ltd
Tangbeiyuan, Dushi, Pingtan, Huiyang, HuizhouCity,
Guangdong,China 516259

The company receives the certification of recyclability for the following packaging.

Designation

Plastic bag (PE32/PE120)

Additional printings or labels can affect the recyclability of the final packaging

Test result

Permitted in sort/specification:	Allocation to LDPE- Fraction (e.g. Fraction No. 310 (DE)) Mixed Polyolefins, Fraction No. 323 (DE) Flexible Polyolefin Items, Fraction No. 323-2 (DE)
Assessment via path:	Path 1: Plastic films / LDPE Path 7: Mixed Polyolefins / Mixed Plastics, flexible
Recyclate (final product):	LDPE / PO regranulate

Test standard:
☒ Requirements and assessment catalogue of the cyclos-HTP Institute for EU-wide certification
Within the certification process, conformity with the following standards was also checked:
☒ Minimum standard for measuring the recycling capacity of the ZSVR (state 31/08/2023); also integrated
☒ DIN EN 13430 with regard to material recyclability in the post-use phase; also integrated

According to the CHI standard the recyclability of the packaging amounts to:

Path 1: 99 % (BE, DE, IT)

Path 7: 74 % (AT, DE)

In accordance with the test results the potential recyclate yield of the packaging amounts to 100 %.

This certificate (No. 2568-2022-003122-W1) is valid until the 31/10/2024 (1 year upon issue) for the countries listed in brackets above; for the countries shown in italics, the existence of a recycling infrastructure cannot be assumed as predominant or the determined value of recyclability is below 50 %.

This certificate will lose validity in case of qualitative or quantitative changes of packaging components or decoration.

Aachen, dated 18/10/2023

Dr. Roland Bothor
Publicly appointed and sworn expert for the IHK field packaging waste disposal
Competent authority: IHK Aachen

The detailed results are documented in the corresponding test report (No. 2568-2022-003122).

CHI | cyclos-HTP Institute
Institut cyclos-HTP GmbH
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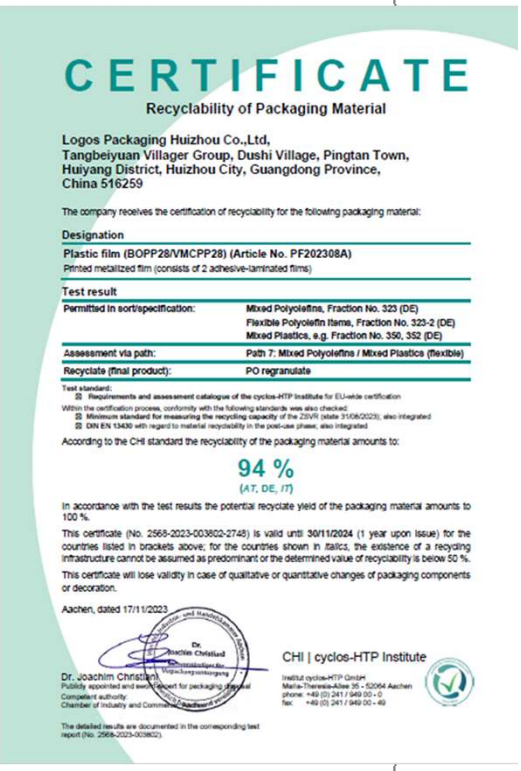
BOPP-VMCPP



CERTIFICATE

Recyclability of Packaging Material

Logos Packaging Huizhou Co.,Ltd,
Tangbeiyuan Villager Group, Dushi Village, Pingtan Town,
Huiyang District, Huizhou City, Guangdong Province,
China 516259

The company receives the certification of recyclability for the following packaging material:

Designation

Plastic film (BOPP28/VMCPP28) (Article No. PF202308A)

Printed metallized film (consists of 2 adhesive-laminated films)

Test result

Permitted in sort/specification:	Mixed Polyolefins, Fraction No. 323 (DE) Flexible Polyolefin Items, Fraction No. 323-2 (DE) Mixed Plastics, e.g. Fraction No. 350, 352 (DE)
Assessment via path:	Path 7: Mixed Polyolefins / Mixed Plastics (flexible)
Recyclate (final product):	PO regranulate

Test standard:
☒ Requirements and assessment catalogue of the cyclos-HTP Institute for EU-wide certification
Within the certification process, conformity with the following standards was also checked:
☒ Minimum standard for measuring the recycling capacity of the ZSVR (state 31/08/2023); also integrated
☒ DIN EN 13430 with regard to material recyclability in the post-use phase; also integrated

According to the CHI standard the recyclability of the packaging material amounts to:

94 %
(AT, DE, IT)

In accordance with the test results the potential recyclate yield of the packaging material amounts to 100 %.

This certificate (No. 2568-2023-003602-2748) is valid until 30/11/2024 (1 year upon issue) for the countries listed in brackets above; for the countries shown in italics, the existence of a recycling infrastructure cannot be assumed as predominant or the determined value of recyclability is below 50 %.

This certificate will lose validity in case of qualitative or quantitative changes of packaging components or decoration.

Aachen, dated 17/11/2023

Dr. Joachim Christiani
Publicly appointed and sworn expert for packaging material
Competent authority:
Chamber of Industry and Commerce Aachen

The detailed results are documented in the corresponding test report (No. 2568-2023-003602).

CHI | cyclos-HTP Institute
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LOGOS PACKAGING

Sustainable Development in Packaging
Fully Recyclable Mono-Material Polyethylene (PE)

Conventional Multilayer Laminate PET/PE switching to

PE/PE or PE/PE-EVOH (Mono PE Material) Recycle Friendly material.

LOGOS PACKAGING

Sustainable Development in Packaging
Fully Recyclable Mono-Material Polypropylene (PP)

Conventional Multilayer Laminate PET/MPET/PE switching to
BOPP/Met-OPP/CPP (Mono PP Material) Recycle Friendly material.

Nestle Purina

LOGOS PACKAGING

Sustainable Development in Packaging
Fully Recyclable Mono-Material Polypropylene (PP)

Mono PP Material
Matt/BOPP/HB-BOPP/WCPP

LOGOS PACKAGING

Sustainable Development in Packaging
Fully Recyclable Mono-Material PE

Mono PE Material Hot Fill Pasteurization Pouch
PE/PE

Recyclable Spout Pouch
(MonoMaterial)
Hot Fill Pasteurization Application

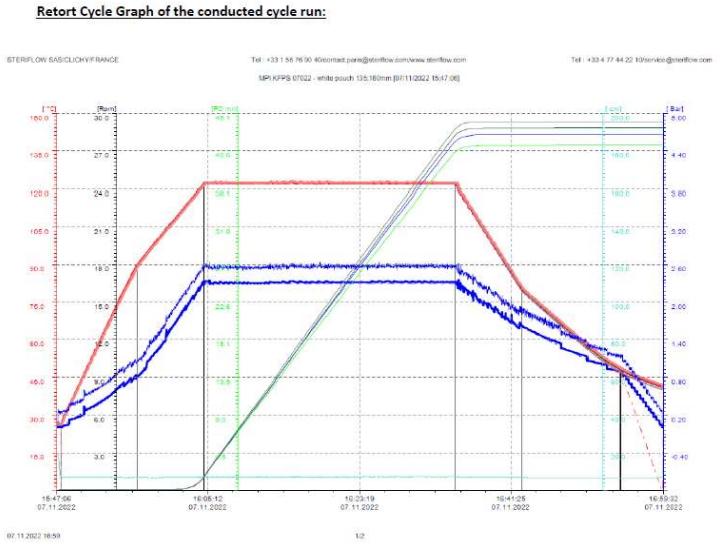
W84 x 130+25
W95 x 128+30

8.5mm (ID) Spout, baby Cap
Single slot spout

LOGOS PACKAGING

Sustainable Development in Packaging
Fully Recyclable Mono-Material Polypropylene (PP)

Mono PP Material Retort Pouch
BOPP/HB-BOPP/WCPP



95x130x25	Tuna Wet Pet Food	160x200x45	Soup
95x140x25	Tuna Wet Pet Food	120x180x35	3-step meal
100x145x30	Tuna Wet Pet Food	140x185x40	Microwaveable Rice Meal
113x160	Tuna Wet Pet Food		

Mono Retort Practical Test Results from Real Products

- **Wet pet food**
  - Chicken in Jelly
  - Reform Meat in Jelly
- **Positive result from retort test and shelf-life test by acceleration test 55℃**
  - 4 weeks
  - 8 weeks
  - 4 months
- **Odor/Colour/pH/texture/appearance**
- **Pouch appearance is normal**

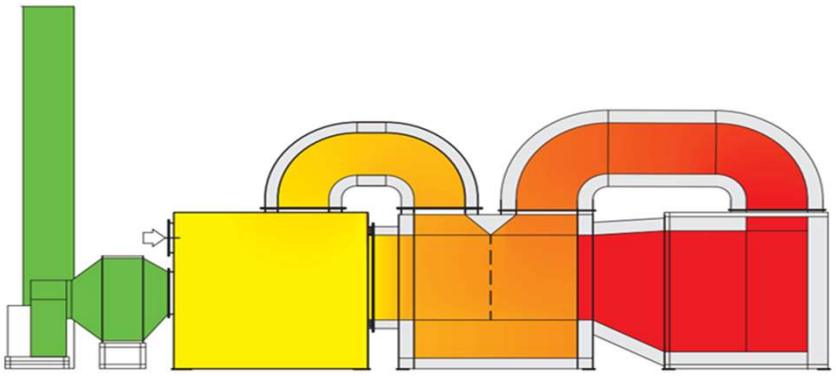
After 4 months incubation 55℃

PASS

LOGOS! Environment Protection, High efficiency VOCs treatment

The LEL implement reduction of flow and enhance concentration mechanism, combined with an efficient organic waste gas TGT treatment device, has the characteristics of high thermal efficiency and the ability to handle large volumes of low-concentration waste gas.

It can also achieve secondary waste heat recovery and economic circulation. The waste gas treatment concentration is less than 10mg/m3, far lower than the domestic government or industry standard, fully achieving VOC emission standards



LOGOS 3rd Factory – Industrial 4.0

Total Construction area

108,882 ㎡

New Factory Facilities

Printing Machine

- Gravure printing, 8-12colors: 7
- PTP foil printing: 1
- Flexographic 1
- Digital printing machine: 2

Lamination Machine

- Dry lamination: 6
- Solvent free lamination: 10
- Coextrusion machine: 1

Pouch Making Machine

- Flat bottom bag: 10
- Totani Pouch Making 54
- Spout welding machine: 40
- Sandwich 10

PP&PE Blowing

- Blown film 4
- Casting film 1
- ALOX/Alu Bond 1
- Coating 1

LOGOS

Work Local Serve Global

LOGOS PACKAGING

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WhatsApp: +852 92158802

We are welcome for your inquiry