

# SHANGHAI SMARTLOOP INDUSTRIAL CO., LTD



*Dedicated To Waste Plastics High Quality Recycling*  
***Strive For A Sustainable And Less Carbon Footprint Life***



## CONTENT

About SmartLoop .....	02
FullCycle™ 100% PCR PP .....	03
FullCycle™ 100% PCR HDPE .....	05
FullCycle™ 100% PCR PET .....	07
RePro™ Modified PCR PET .....	08
BiomassPlus™ Plant Fiber Compound RPP .....	09
Certifications And Customers .....	10

01





Since 2019, SmartLoop focuses on plastic wastes high-quality recycling and applications exploration. The company philosophy is “High-quality recycling, Low-carbonate lifestyle, and Promoting green economy” .

SmartLoop launched kinds of FullCycle™ 100% PCR resins including PCR PP, PCR HDPE, PCR PET, PCR ABS and many more. Food grade rHDPE and rPP from SmartLoop obtained FDA NOL in Feb 2024, these products comply with US FDA, EU food-contact material regulation EU10/2011, BPA free, etc.



**FullCycle™**

100% PCR Resin



**SmartEco™**

Super rPET



**Heat Resistant**

PCR PET



**BiomassPlus™**

Plant Fiber Compounded PCR Resin



## FullCycle™ PCR PP (Food Grade)

Food grade PCR PP are the core products of SmartLoop. Using take-away food boxes, PP made juice bottles as the input materials, SmartLoop launched 4 transparent food-grade PCR PP materials, and they're all certified with FDA NOL. They are good for food packaging, kitchen ware, stationery, toys and many more.

100% PCR PP Injection

GRS, FDA, BPA Free, REACH, RoHS, California Prop.65, TPCH (CONEG), PFAS Free

Grade	Color	Density g/cm <sup>3</sup>	MFI g/10min	Tensile Strength MPa	Tensile Modulus MPa	Flexural Strength MPa	Flexural Modulus MPa	Notched Impact KJ/m <sup>2</sup>	Ash %	HDT °C
SMR1201	Natural	0.90	8-13	30	1310	39	1300	3.5	0.2	95



Food Grade



Packaging



Tableware and Cutlery



Toys

100% PCR PP Blowing

GRS, FDA, BPA Free, REACH, RoHS, California Prop.65, TPCH (CONEG), PFAS Free

Grade	Color	Density g/cm <sup>3</sup>	MFI g/10min	Tensile Strength MPa	Tensile Modulus MPa	Flexural Strength MPa	Flexural Modulus MPa	Notched Impact KJ/m <sup>2</sup>	Ash %	HDT °C
SMR1202	Natural	0.90	3-5	20	720	23	720	12	0.2	70



Food Grade



Bottles



Straws



PP sheets

100% PCR PP High MFI

GRS, FDA, BPA Free, REACH, RoHS, California Prop.65, TPCH (CONEG), PFAS Free

Grade	Color	Density g/cm <sup>3</sup>	MFI g/10min	Tensile Strength MPa	Tensile Modulus MPa	Flexural Strength MPa	Flexural Modulus MPa	Notched Impact KJ/m <sup>2</sup>	Ash %	HDT °C
SMR1203	Natural	0.90	40-50	34	1480	44	1520	3	0.2	98



Food Grade



Cups



Food boxes

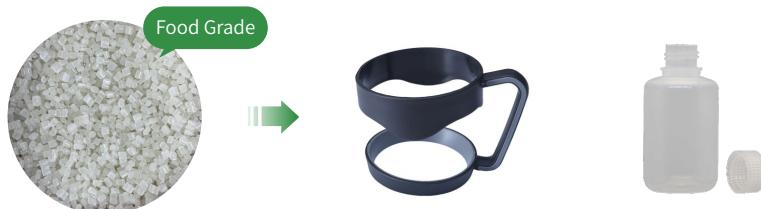


Nonwovens bags

## 100% PCR PP Copolymer

GRS, FDA, BPA Free, REACH, RoHS, California Prop.65, TPCH (CONEG), PFAS Free

Grade	Color	Density g/cm <sup>3</sup>	MFI g/10min	Tensile Strength MPa	Tensile Modulus MPa	Flexural Strength MPa	Flexural Modulus MPa	Notched Impact KJ/m <sup>2</sup>	Ash %	HDT °C
SMR4201	Natural	0.90	3-5	25	900	28	950	7	0.5	75-80



## FullCycle™ PCR PP (Nonfood grade)

SmartLoop developed kinds of nonfood grade PCR PP as well which are widely used in household, packaging and many more industries. The input raw materials come from buckets of washing machines, refrigerators liners, even fishnets.

## 100% PCR PP Injection

GRS, FDA, REACH, RoHS

Grade	Color	Density g/cm <sup>3</sup>	MFI g/10min	Tensile Strength MPa	Tensile Modulus MPa	Flexural Strength MPa	Flexural Modulus MPa	Notched Impact KJ/m <sup>2</sup>	Ash %	HDT °C
SMR2202	Natural	0.91	28	25	1290	36	1310	7.5	0.5	95



## 100% PCR PP Injection

GRS, REACH, RoHS

Grade	Color	Density g/cm <sup>3</sup>	MFI g/10min	Tensile Strength MPa	Tensile Modulus MPa	Flexural Strength MPa	Flexural Modulus MPa	Notched Impact KJ/m <sup>2</sup>	Ash %	HDT °C
SMR2212	White	0.93	40-60	22	1200	31	1150	5	3	90

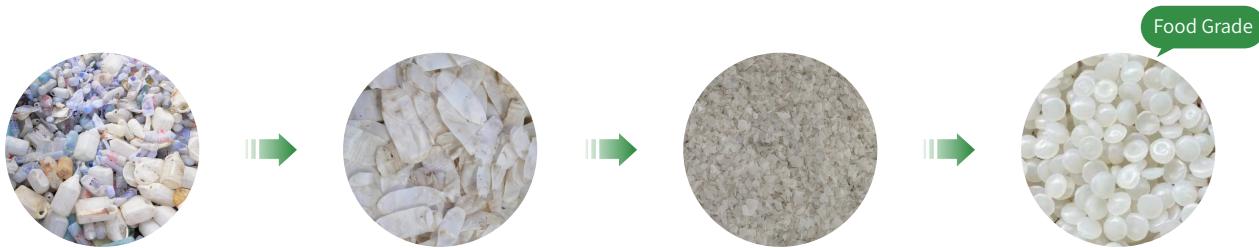


## FullCycle™ PCR HDPE Blowing Grade

100% PCR HDPE Blowing

GRS, FDA, BPA Free, REACH, RoHS, California Prop.65, TPCH (CONEG), PFAS Free

Only use the drinking bottles, milk bottles after sorting as the raw materials, through sorting, crushing, cold wash, hot wash, material screening, color screening, melting, extrusion and pelletization, odor removal to produce the high-quality food-grade PCR HDPE resins.



### ● SPECIFICATIONS

Grade	Color	Density g/cm <sup>3</sup>	MFI g/10min	Tensile Strength MPa	Tensile Modulus MPa	Flexural Strength MPa	Flexural Modulus MPa	Notched Impact KJ/m <sup>2</sup>	Ash %
SMR1101	Natural	0.94	0.25-0.45	> 25	880	24.8	950	36	0.2
SMR1111	White	0.95	0.25-0.55	> 22	920	20	850	35	2

\*For more colors products, please contact our salespeople.

### ● APPLICATIONS



Toolboxes



Bottles



Tubes



Films



## FullCycle™ - PCR HDPE Injection Grade

100% PCR HDPE Injection

GRS, FDA, BPA Free, REACH, RoHS, California Prop.65, TPCH (CONEG), PFAS Free

FullCycle™ C2C (cap to cap) PCR HDPE are made by the beverage caps through collection, sorting, regrinding, washing, color and material sorting, melting, filter and pelletization, and SupeRefresh™ odor removal process. The production complies with GMP and food-contact requirements, the recycled materials can be further used for beverage caps again to achieve the C2C recycling.



### ● SPECIFICATIONS

Grade	Color	Density g/cm³	MFI g/10min	Tensile Strength MPa	Tensile Modulus MPa	Flexural Strength MPa	Flexural Modulus MPa	Notched Impact KJ/m²	Ash %
SMR2102NC	Natural	0.94	3.5	20	810	22	860	7	< 0.2
SMR2112W	White	0.95	4.8	20	760	18	750	6	< 2

\*For more colors products, please contact our salespeople.

### ● APPLICATIONS



Tube shoulders



Frisbees



Beverage caps



## FullCycle™ PCR PET

100% sourced from drinking water bottles, through the bottle sorting, metal removal, de-labeling, crushing, cold washing, hot washing, rinse-off, eddy current metal sorting, material and color screening, melting, granulation (EREMA machine), SSP IV rebuilding process (BUHLER), SmartLoop can supply the high-quality food-grade PCR PET pellets.

100% PCR PET, uncrosslinked      GRS, FDA, BPA Free, REACH, RoHS, California Prop.65, TPCH (CONEG), PFAS Free

Grade	I.V.d l/g	Melt Temp. °C	L	a	b	AA content ppm	Limonene ppb	Moisture %	Metal ppm	Weight/100 pellets g
SMR6301	0.69	> 245	> 80	-2 ~ 0	< 5	< 10	< 10	< 0.4	< 5	1.6



PET films



PET filaments



Compounding

100% PCR PET, crystallized

GRS, FDA, BPA Free, REACH, RoHS, California Prop.65, TPCH (CONEG), PFAS Free

Grade	I.V.d l/g	Melt Temp. °C	L	a	b	AA content ppm	Limonene ppb	Moisture %	Metal ppm	Weight/100 pellets g
SMR6312	0.69	> 245	> 75	-2 ~ 0	-3 ~ 0	< 10	< 10	< 0.4	< 5	1.6



Storage boxes



Toothbrushes



Stationery

100% PCR PET, B2B grade

GRS, FDA, BPA Free, REACH, RoHS, California Prop.65, TPCH (CONEG), PFAS Free

Grade	I.V.d l/g	Melt Temp. °C	L	a	b	AA content ppm	Limonene ppb	Moisture %	Metal ppm	Weight/100 pellets g
SMR6313	0.83	> 245	> 75	-4 ~ 0	-3 ~ -1	< 1	< 10	< 0.2	< 5	1.6



Water bottlers



Personal care bottles



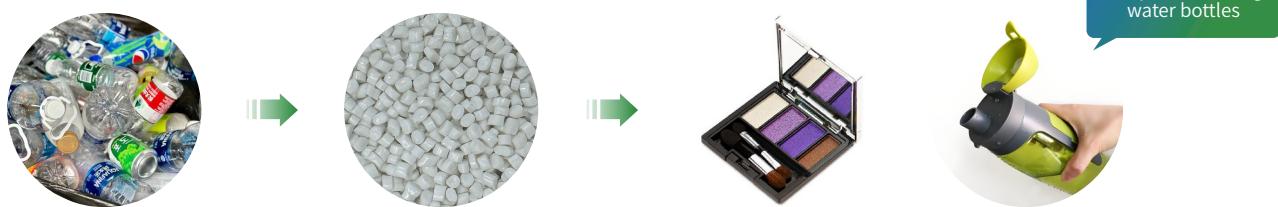
Thermal forming cups, lids, boxes

\*For other higher IV products (IV 0.88, IV 1.0, etc.), please contact our salespeople.

## SmartEco™ Super rPET- Rebirth of drinking water bottles

Can imagine that the powder compacts, lipstick pack, caps originally are the PET drinking water bottles?

That is SmartEco™ Super RPET!



SmartEco™ Super RPET can be used to replace ABS and even PP for sports products, cosmetics packaging and other injection goods.

We make you more beautiful, you make the earth more beautiful!

### ● SPECIFICATIONS

Grade	Density g/cm <sup>3</sup>	MFI g/10min	Tensile Strength MPa	Tensile Modulus MPa	Flexural Strength MPa	Flexural Modulus MPa	Notched Impact KJ/m <sup>2</sup>	Ash %	HDT °C	PCR %
SR11303	1.32	30	56	2330	78	2140	5.6	0.05	80	93%
SR11355	1.30	35	52	2270	72	1970	8.3	0.05	74	92%
SR11184	1.27	18	40	1750	60	1610	14	0.05	72	86%

## RePro™ rPET- Heat Resistant

RePro™ heat-resistant RPET products are developed based on the PCR PET which certified by US FDA and EU EFSA which are certified for food-contact materials. These heat-resistant RPET are the perfect replacement of the melamine resin and PLA resin for tableware products.

Eco Friendly

Safe & Healthy

Dishwasher Safe

Microwavable

### ● SPECIFICATIONS

Grade	Density g/cm <sup>3</sup>	MFI g/10min	Tensile Strength MPa	Tensile Modulus MPa	Flexural Strength MPa	Flexural Modulus MPa	Notched Impact KJ/m <sup>2</sup>	HDT °C	PCR %
HR13903	1.52	90	60	5550	105	5690	1.8	140	80%
HR14341	1.55	34	123	9780	185	9070	7.2	220	70%



## BiomassPlus™ Plant Fiber Compounding PCR Resin

Compounding the food-grade post-consumer recycled PP material (PCR PP) with waste plants fiber (like wheat straw, bamboo fiber, coffee grounds, tea grounds, etc.) to produce a more sustainable materials, the plant fiber content is up to 30%-50%. In this way, we can further reduce the consumption of plastics which is more natural, more environmental.

BiomassPlus™ products comply with FDA, and can be used in injection molding for water cups, plates, knives and forks, spoons, storage boxes, etc.

*Take action, less plastics!*



Wheat straw



Bamboo fiber



Coffee grounds



Tea grounds

### ● Specification

Grade	Density g/cm³	MFI g/10min	Tensile Strength MPa	Tensile Modulus MPa	Flexural Strength MPa	Flexural Modulus MPa	Notched Impact KJ/m²	HDT °C	Bio-content %
BM512835	1.02	28	19	1530	32	1490	2	110	Wheat fiber- 35%
BM522635	1.05	26	19	1560	30	1480	2	109	Bamboo fiber- 35%
BM532515	1.14	25	25	2770	44	2850	1.5	120	Coffee grounds-15%
BM541020	1.10	10	18	20	28	1180	3	110	Tea grounds- 20%



## Certifications



GRS Certification

RecyClass

RecyClass<sup>[1]</sup>

FDA

FDA NOL



Ocean Cycle OBP Certification



UL 2809 OBP Certification

SMETA<sup>[1][2]</sup>ISO9001/14001/45001<sup>[2]</sup>

REACH SVCH



RoHS



BPA FREE

1. On going, to be available in June 2025.

2. For manufacturing sites.

## Partners

Pioneering with the global leading brand owners and retailers, SmartLoop works with more than 220 convertors worldwide to deliver the sustainable solutions and life-style to the consumers.



ESTĒE LAUDER

L'ORÉAL PARIS

P&amp;G



robertsBEAUTY

KERING BEAUTÉ

KFC

HAY

IKEA





**Together**

*to create a better world by reducing carbon emission.*

## Shanghai SmartLoop Industrial Co., Ltd

TEL.: +86 21 6859 0520

Phone: +86 180 1636 1671

Web.: [www.smartloop.com.cn](http://www.smartloop.com.cn)

Email: [info@smartloop.com.cn](mailto:info@smartloop.com.cn)

19B, No. 985 Dongfang Road, Pudong District, Shanghai, P.R. China, 200122



WhatsApp