

SHANGHAI SMARTLOOP INDUSTRIAL CO., LTD



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



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Recycling
& Reuse

Low-carbon
lifestyle

Green
Economy

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



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



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



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



Food Grade



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 ³ | MFI g/10min | Tensile Strength MPa | Tensile Modulus MPa | Flexural Strength MPa | Flexural Modulus MPa | Notched Impact KJ/m ² | Ash % | HDT °C |
|---------|---------|---------------------------|-------------|----------------------|---------------------|-----------------------|----------------------|----------------------------------|-------|--------|
| SMR2202 | Natural | 0.91 | 28 | 25 | 1290 | 36 | 1310 | 7.5 | 0.5 | 95 |



Packaging



Storage boxes

100% PCR PP Injection

GRS, REACH, RoHS

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



Laundry baskets



Chairs

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 ³ | MFI g/10min | Tensile Strength MPa | Tensile Modulus MPa | Flexural Strength MPa | Flexural Modulus MPa | Notched Impact KJ/m ² | 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



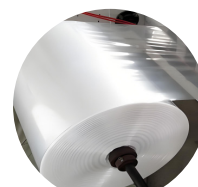
Toolboxes



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/cm ³ | MFI g/10min | Tensile Strength MPa | Tensile Modulus MPa | Flexural Strength MPa | Flexural Modulus MPa | Notched Impact KJ/m ² | 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.

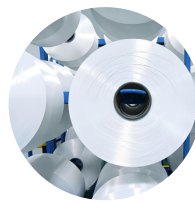
100% PCR PET, uncrystallized

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



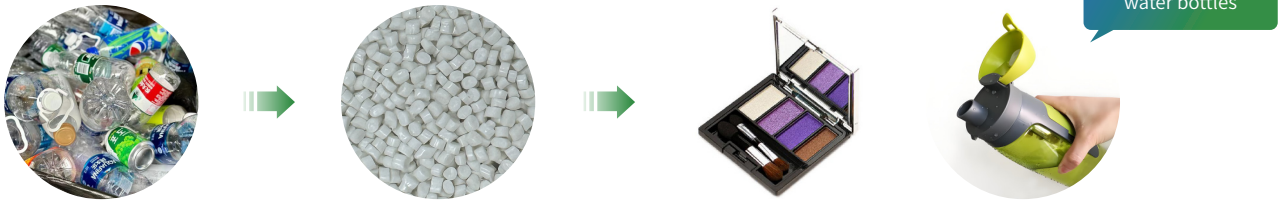
Thermal forming cups, lids, boxes

*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 ³ | MFI g/10min | Tensile Strength MPa | Tensile Modulus MPa | Flexural Strength MPa | Flexural Modulus MPa | Notched Impact KJ/m ² | 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 ³ | MFI g/10min | Tensile Strength MPa | Tensile Modulus MPa | Flexural Strength MPa | Flexural Modulus MPa | Notched Impact KJ/m ² | 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/cm ³ | MFI g/10min | Tensile Strength MPa | Tensile Modulus MPa | Flexural Strength MPa | Flexural Modulus MPa | Notched Impact KJ/m ² | 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^[1]


FDA NOL


Ocean Cycle
OBP Certification

UL 2809
OBP Certification

SMETA^{[1][2]}

ISO9001/14001
/45001^[2]


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 converters worldwide to deliver the sustainable solutions and life-style to the consumers.



ESTÉE LAUDER

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PARIS

P&G



robertsBEAUTY



KFC

HAY





Together

to create a better world by reducing carbon emission.

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