

TECHNICAL DATA SHEET (TDS)

FullCycle™ PCR PP SMR4202

100% PCR PP Copolymer, natural color, food grade for injection use.

DESCRIPTION

FullCycle™ PCR PP SMR4202 is a 100% Post-consumer recycled (PCR) PP resin. It uses 100% caps from water and beverage bottles as the raw materials, and produced by sorting, regrinding, cold wash, hot wash, flakes sorting, melting, filter and extrusion, pelletization and odor removal processes. The product complies with GRS (Global Recycled Standard) and FCM (food contact materials) requirements.

PROPERTIES

Item	Typical Value	UoM	Standard
Density	0.90-0.91	g/m³	ISO 1183
MFI (230°C, 2.16kg)	7-10	g/10min	ISO 1133-1
Tensile Strength	25.4	MPa	ISO 527-2, 50mm/min
Elongation at Break	700	%	ISO 527-2, 50mm/min
Flexural Strength	28.5	MPa	ISO 178, 2mm/min
Flexural Modulus	930	MPa	ISO 178, 2mm/min
Charpy Impact Strength-Notched	6.4	KJ/m²	ISO 180
Charpy Impact Strength- Unnotched	96.6	KJ/m²	ISO 180
Heat Deflection Temperature	80	°C	ISO 75-2, 0.45MPa
Melting Point	160	°C	ISO 11357
Molding Shrinkage	1.6	%	Internal
Moisture content	< 0.2	%	ISO 15512-2014
Ash content	< 0.1	%	ISO 3451-1, 800°C

* Data shown above are representative values for reference purposes only, and not to be construed as specifications.

APPLICATIONS

Drinking water caps
Toys

Packaging Components
Others

COMPLIANCE

FDA
REACH (240 SVHC)

EU10/2011
RoHS Directive (EU) 2011/65

PRODUCTS FEATURES

Easy for injection
Stable mechanical performance

Good impact strength
Low impurities

PACKING

Jumbo bags, 750KG/bag.
Trial samples, 25KG/bag.

PICTURE



PROCESSING CONDITIONS

FullCycle™ PCR PP SMR4202 needs to be dried at 120°C for 2 hours before use. Processing temperature is 180~210°C.

STORAGE

FullCycle™ PCR PP SMR4202 should be stored in room temperature with dry condition. Improper storage can cause the resins degradation and quality issues of the final products. For more details, please refer to the MSDS or contact your sales representative.

DISCLAIMER

All data generated by SmartLoop lab team, SmartLoop reserves the rights to update this document without notifications.

ADDRESS

Shanghai SmartLoop Industrial Co., Ltd
19B, No. 985 Dongfang Road, Pudong District, Shanghai, 200122
Tel.: +86 21 6314 9892
Email: info@smartloop.com.cn
Website: www.smartloop.com.cn