



TECHNICAL DATA SHEET
FullCycle™ PCR-PP
SMR1202

100% Post-Consumer Recycled Polypropylene For Extrusion (Blowing) Molding Process.

DESCRIPTION

PCR PP SMR1202 is a 100% PCR (post-consumer recycled) polypropylene material with a low melt flow rate and good impact resistance, designed for extrusion (blowing) molding process.

PCR PP SMR1202 is made from 100% PCR drinking water and juice bottles, these products are manufactured through high quality recycling process, consist of hot washing, melt filtration, pelletization and degassing etc., comply with GRS (Global Recycled Standard) and food contact materials (FCM) regulations.

APPLICATIONS

Food Containers	EBM bottles
Tubes	Straws
Sheets	

SPECIAL FEATURES

Lower impurity content control	High glossiness and low haze
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COMPLIANCE

BPA Free	FDA compliant
REACH (224 SVHC)	RoHS Directive (EU) 2011/65
California Prop. 65	TPCH
EU Regulations EC No 1935/2004 & EU No 10/2011	

PHYSICAL PROPERTIES

Property	Typical Value	Test Method
Density	0.90 g/m ³	ISO 1183
Melt Flow Rate (230°C/2.16kg)	3 g/10min	ISO 1133
Tensile Stress (50mm/min)	20 MPa	ISO 527-2
Flexural Modulus	720 MPa	ISO 178
Flexural Strength	23 MPa	ISO 178
Ash Content	0.15 %	ISO 3451-1
Melt Point	160 °C	ISO 11357
Molding Shrinkage	1.6 %	Internal
Charpy Impact Strength, notched (23°C)	12 KJ/m ²	ISO 180
Charpy Impact Strength, unnotched (23°C)	98 KJ/m ²	ISO 180
Heat Deflection Temperature(0,45MPa) *	70 °C	ISO 75-2
Heavy Metals (Rohs)	Cd	N.D.
	Hg	N.D.
	Pb	N.D.
	Cr	N.D.

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

PROCESSING CONDITIONS

PCR PP SMR1202 is easy to process with standard extrusion blowing moulding machines.

Following parameters should be used as guidelines:

Melt temperature: **180 - 210 °C**

Holding pressure: **200 - 500 bar**

Mould pressure: **60-100 MPa**

Mould temperature: **30 - 50 °C**

Molding time: **20-60 s**

Shrinkage 1 - 2%, depending on wall thickness and moulding parameters.

The above parameters are for reference only. The converters should adjust the processing data according to the machine, mold and products requirements.

STORAGE

PCR PP SMR1202 should be stored in dry conditions at temperatures below 50°C and protected from UV-light.

Improper storage can initiate degradation, which results in odor generation and color changes and can have negative effects on the physical properties of this product.

More information on storage can be found in Material Safety Data Sheet (MSDS) for this product.

RECYCLING

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

DISCLAIMER

This information contained herein is based on the data available to us and is believed to be correct. However, SMART makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. Each user of the products shall convince himself through all available sources (including finished product testing in its appropriate environment) of the suitability of the products supplied for its particular purpose.

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