



TECHNICAL DATA SHEET

FullCycle™ PCR PP

SMR2202 (Natural Color)

100% Post-Consumer Recycled Polypropylene For Injection Molding Process.

DESCRIPTION

PCR PP SMR2202 is a 100% PCR (post-consumer recycled) polypropylene material with a good melt flow rate and good tensile and flexural strength, designed for injection molding process.

PCR PP SMR2202 is made from the discarded inner buckets of washing machines. The products are manufactured through high quality recycling process, consist of hot washing, sorting, melt filtration, pelletization and degassing etc., comply with GRS (Global Recycled Standard).

APPLICATIONS

Containers/ Boxes
Lids/ Cups
Toys

Compacts
Lids/ Cups
Housewares

SPECIAL FEATURES

Lower impurity content control

Stable MFR suitable for injection molding

COMPLIANCE

FDA compliant
RoHS Directive (EU) 2011/65

REACH (240 SVHC)

PHYSICAL PROPERTIES

Property	Typical Value	Test Method
Density	0.91 g/m ³	ISO 1183
Melt Flow Rate (230°C/2.16kg)	28 g/10min	ISO 1133
Tensile Stress (50mm/min)	25 MPa	ISO 527-2
Tensile Modulus	1290 MPa	ISO 527-2
Flexural Strength	36 MPa	ISO 178
Flexural Modulus	1310 MPa	ISO 178
Ash Content	0.5 %	ISO 3451-1
Melt Point	160 °C	ISO 11357
Molding Shrinkage	1.6 %	Internal
Charpy Impact Strength, notched (23°C)	7.5 KJ/m ²	ISO 180
Charpy Impact Strength, unnotched (23°C)	NB KJ/m ²	ISO 180
Heat Deflection Temperature(0,45MPa)	95 °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 SMR2202 is easy to process with standard injection moulding machines.

The following parameters should be used as guidelines:

Melt temperature: **180 - 210 °C**

Holding pressure: **200 - 500 bar**

Mold pressure: **60-100 MPa**

Mold temperature: **30 - 50 °C**

Molding time: **30-60 s**

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

The above data is for reference only, converters should adjust the machine settings according to the machine, mold and products requirements.

STORAGE

PCR PP SMR2202 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.

ADDRESS

Shanghai SMART New Materials Co., Ltd
19B, No. 985 Dongfang Road, Pudong District, Shanghai
Tel: 021-63149892, Post Code: 200122
Email: info@sumai99.com