



TECHNICAL DATA SHEET

PCR-PP

SMR HR™ 9080

80% Post-Consumer Recycled Polypropylene For Injection Molding Process.

DESCRIPTION

PCR PP SMR HR™ 9080 is a 80% PCR (post-consumer recycled) polypropylene material with a good impact resistance and high heat resistance, designed for injection molding process.

PCR PP SMR HR™ 9080 is modified PP made from 80% PCR products, including food boxes, water cups and drinking water 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. All formula technology belongs to SMART research and development and mass production.

APPLICATIONS

Food Containers	Packaging components
Lids	Water cups
Home appliance	Housewares containers

SPECIAL FEATURES

Excellent balance of rigidity and impact resistance	Good MFR suitable for injection molding
Lower impurity content control	Stable Quality Control

COMPLIANCE

BPA Free	FDA compliant
REACH (224 SVHC)	RoHS Directive (EU) 2011/65

PHYSICAL PROPERTIES

Property	Typical Value	Test Method
Density	0.964 g/m ³	ISO 1183
Melt Flow Rate (230°C/2.16kg)	8 g/10min	ISO 1133
Tensile Stress (50mm/min)	38 MPa	ISO 527-2
Tensile Modulus	2000 MPa	ISO 527-2
Elongation at Break	10%	ISO 527-2
Flexural Modulus	51 MPa	ISO 178
Flexural Strength	1950 MPa	ISO 178
Ash Content	10 %	ISO 3451-1
Melt Point	160 °C	ISO 11357
Molding Shrinkage	0.9-1.2 %	Internal
Charpy Impact Strength, notched (23°C)	6.5 KJ/m ²	ISO 180
Charpy Impact Strength, unnotched (23°C)	48 KJ/m ²	ISO 180
Heat Deflection Temperature(0,45MPa)	130 °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 SMR HR™ 9080 is easy to process with standard injection 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: **30-60 s**

Shrinkage 0.9-1.2%, depending on wall thickness and moulding parameters

STORAGE

PCR PP SMR HR™ 9080 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

Room 1005, Building A1, No.8 Lane 1518, Wangyuan South Road, Fengxian District, Shanghai

Tel: 021-63149892, Post Code: 201499