

TECHNICAL DATA SHEET

FullCycle™ PCR PP

SMR1203 (Natural color, food grade)

100% Post-Consumer Recycled Polypropylene For Thin-wall Injection.

DESCRIPTION

PCR PP SMR1203 is a 100% PCR (post-consumer recycled) polypropylene material with a high melt flow rate and good tensile and flexural strength, designed for injection molding process especially for the thinner wall injection components.

PCR PP SMR1203 is made from 100% PCR products (food boxes). This product is 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
Lids
Children toys

Packaging components
Water cups
Housewares containers

SPECIAL FEATURES

Lower impurity content control

Stable MFR suitable for injection molding

COMPLIANCE

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

FDA compliant
RoHS Directive (EU) 2011/65
TPCH

PHYSICAL PROPERTIES

Property

Density
Melt Flow Rate (230°C/2.16kg)
Tensile Stress at yield (50mm/min)
Tensile Modulus (50mm/min)
Elongation at break
Flexural Strength
Flexural Modulus
Ash Content
Melt Point
Molding Shrinkage
Charpy Impact Strength, notched (23°C)
Charpy Impact Strength, unnotched (23°C)
Heat Deflection Temperature(0,45MPa)
Heavy Metals (Rohs)

Typical Value

0.907 g/m³
46 g/10min
34 MPa
1480 MPa
35%
44 MPa
1520 MPa
0.2 %
160 °C
1.6 %
3.0 KJ/m²
61 KJ/m²
98 °C
Cd
Hg
Pb
Cr

Test Method

ISO 1183
ISO 1133
ISO 527-2
ISO 527-2
ISO 527-2
ISO 178
ISO 178
ISO 3451-1
ISO 11357
Internal
ISO 180
ISO 180
ISO 75-2
N.D.
N.D.
N.D.
N.D.

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

PROCESSING CONDITIONS

PCR PP SMR1203 is easy to process with standard injection moulding machines.

Following parameters should be used as guidelines:

Melt temperature: **180 - 220 °C**

Holding pressure: **200 - 500 bar**

Mould pressure: **60-100 MPa**

Mould temperature: **30 - 50 °C**

Molding time: **30-60 s**

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

STORAGE

PCR PP SMR1203 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, SmartLoop 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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