



TECHNICAL DATA SHEET

FullCycle™ PCR HDPE

SMR1101 (Natural color, food grade)

100% Post-Consumer Recycled High Density Polyethylene.

DESCRIPTION

PCR HDPE SMR1101 is made by post-consumer HDPE food contact containers like milk and beverage bottles. It can be used for blowing bottles, films and other extrusion goods. These r-HDPE pellets are manufactured through high quality recycling process, complied with GRS (global recycled standard), including washing, melt filtration and pelletization etc.

APPLICATIONS

Food Containers	EBM bottles
Tubes	Films
Toolboxes	

SPECIAL FEATURES

Lower impurity content control	Stable MFR suitable for blow molding
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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	0.94 g/m ³	ISO 1183
Melt Flow Rate (190°C/2.16kg)	0.3 g/10min	ISO 1133
Tensile Stress (50mm/min)	25 MPa	ISO 527-2
Flexural Modulus	950 MPa	ISO 178
Flexural Strength	25 MPa	ISO 178
Ash Content	< 1 %	ISO 3451-1
Melting Point	140 °C	ISO 11357
Molding Shrinkage	/	Internal
Charpy Impact Strength, notched (23°C)	36 KJ/m ²	ISO 180
Charpy Impact Strength, unnotched (23°C)	100KJ/m ²	ISO 180
Odor	< 4 Grade	80°C-2h
Color	L	≥65
	a	0.25-1
	b	0-7
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 HDPE SMR1101 is easy to process with standard blow moulding machines.

Following parameters should be used as guidelines:

Melt temperature: **160 - 200 °C**

Holding pressure: **200 - 500 bar**

Mold pressure: **60-100 MPa**

Mold temperature: **30 - 50 °C**

Molding time: **30-60 s**

Typically do not need to be dried before use.

The above information is for reference purpose only. Make sure to adjust the molding parameters according to your machine, mold and other product requirements.

STORAGE

PCR HDPE SMR1101 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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