PRODUCT DATA SHEET

Post-Consumer Recyclate

Borcycle™ ME7153SY

Recycled PE Compound

EverMinds™
Accelerating Action on Circularity

Description

Borcycle™ ME7153SY is a natural, UV stabilized, colorable, medium density (MD) jacketing compound. It contains 50% post consumer recyclate (PCR) and is intended for use in medium and low voltage cables.

Typical characteristics

Borcycle™ ME7153SY can be described with following typical characteristics:

- Consistent product properties
- Superior processability
- Excellent environmental stress cracking resistance (ESCR)
- Smooth surface finish
- Low odor
- Low water permeability
- Easy to color
- Carbon footprint savings

Applications

Borcycle™ ME7153SY is intended for following applications:

Jackets for energy and communication cables

Specifications

Borcycle™ ME7153SY is expected to meet the applicable requirements included in the below mentioned standards provided it is processed using sound material handling and processing practices as well as appropriate testing procedures.

- ASTM D1248 Type II, Class A, Category 4, Grade E8, E9, J4
- DIN VDE 0818
- EN 50290-2-24
- HD 603 S1 DMP 6
- IEC 60502 Part 2, Type ST7
- IEC 60840 Type ST7

Physical properties

Property	Typical value *	Unit	Test method
Density	938	kg/m³	ISO 1183-1
Melt flow rate (190 °C/2.16 kg)	0.7	g/10min	ISO 1133-1
Flexural modulus	650	MPa	ISO 178
Melt flow rate (190 °C/5 kg)	2.5	g/10min	ISO 1133-1
Oxidation induction time (200 °C)	40	min	ISO 11357-6
Low temperature brittleness [1]	0	pieces	ASTM D746
Environmental stress crack resistance (50°C, Igepal 10%, F0) [2]	> 2000	h	IEC 60811-406
Shore-D 1s	58	-	ISO 868
Pressure test at high temperature (115 °C, 6h)	11	%	IEC 60811-508

* Data should not be used for specification work

[1] *F0, measured at -76ºC*
[2] *No crack*

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Electrical properties

Property	Typical value *	Unit	Test method
DC volume resistivity	10	PΩcm	IEC 60093
Dielectrical strength	20	kV/mm	IEC 60243

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Processing techniques

Borcycle™ ME7153SY provides excellent surface finish and allows a broad processing window. For extrusion standard PE-screws are recommended, but also screws designed for PVC can be used with good result. To minimize shrink back gradient cooling with hot water, minimum 60 °C in the first part of the cooling trough, is strongly recommended.

Processing setting	Typical value/range
Drying/Pre-heating temperature[3]	70 °C
Melt temperature	170-210 °C

[3] *Maximum recommended temperature*

In order to fully utilize the unique low shrink properties of Borcycle™ ME7153SY we recommend the use of non-warping color masterbatches.

Packaging and storage

Package: Bulk, Octabins, Bags

Borcycle™ ME7153SY has a shelf life of 24 months from production date if stored in unopened original packages, under dry and clean conditions at temperatures between 10 - 30 °C (50 - 85 °F). Material shelf life is affected by the storage conditions and extreme conditions influence the general material quality and performance. It is also recommended to ensure proper stock rotation by First In – First Out principle.

Product compliance documents

Latest versions of product safety information sheets (PSIS), product safety data sheets (SDS) and other product liability documents are available in our website www.borealisgroup.com.

Sustainability aspects

Borealis is ever mindful of the impact of our products on the planet. We promote Design for Circularity (DfC) and Design for Recycling (DfR) to conserve natural resources and to reduce the environmental impact of products over their entire lifetime (including production, use phase and after phase). DfR helps ensure that material can be effectively recycled while maximizing the material performance efficiency.

Further information on sustainability and Design for Recycling (DfR) can be found from our websites www.borealisgroup.com and www.borealiseverminds.com.

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