

Borcell™ HE1106

High Density Polyethylene

Borealis AG

Technical Data

Product Description

Borcell HE1106 is a fully formulated compound for physical foamed coaxial cable insulations. It is based mainly on high density polyethylene and a nucleating agent to initiate the gas injection foaming process.

Applications:
Borcell HE1106 is designed to use as physically foamed insulation for:

- Small to medium size coaxial cable constructions (type RG)

Specifications:
Borcell HE1106 meets the following material classification:

- ISO 1872-PE, KEGHN, 50-D090
- ASTM D 1248 Type III, Category 3

The following cable material standards are met by Borcell HE1106:

- EN 50290-2-23 (Appropriate parts)

Cables manufactured with Borcell HE1106 using sound extrusion practice normally comply with the following cable product standards:

- IEC 61196
- EN 50117

Special features:
Borcell HE1106 consists of specially selected components to offer:

- Low attenuation over a wide range of frequencies
- High expansion degree to slightly above 80%
- Broad application window
- Uniform cell structure
- Smooth surface

General

Material Status	• Commercial: Active	
Literature ¹	• Technical Datasheet (English)	
Search for UL Yellow Card	• Borealis AG	
Availability	• Europe	• North America
Additive	• Nucleating Agent	
Features	• High Density	• Nucleated
Uses	• Coaxial Cable Jacketing	• Foam
Agency Ratings	• ASTM D 1248, I, Class A, Cat. 3	• EN 50290-2-23
Forms	• Granules	
Processing Method	• Gas-Assisted Injection Molding	

Physical	Nominal Value Unit	Test Method
Density	0.950 g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (140°C/5.0 kg)	7.5 g/10 min	ISO 1133
Mechanical	Nominal Value Unit	Test Method
Tensile Strain (Break)	300 %	ISO 527-2/50
Hardness	Nominal Value Unit	Test Method
Shore Hardness (Shore D, 3 sec)	60	ISO 868
Electrical	Nominal Value Unit	Test Method
Dielectric Constant		
1 MHz	2.34	IEC 60250
1.80 GHz	2.34	Internal Method
Dissipation Factor		
1 MHz	0.000060	IEC 60250
1.80 GHz	0.00010	Internal Method