

Description

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

HE1106 is designed to use as physically foamed insulation for:

Small to medium size coaxial cable constructions (type RG)

Specifications

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 HE1106:

EN 50290-2-23 1

¹ Appropriate parts

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

IEC 61196

EN 50117

Special Features

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

Physical Properties

Property	Typical Value Data should not be used for specifica	Test Method ation work
Density	950 kg/m³	ISO 1183-1, Method A
Melt Flow Rate (140 °C/5 kg)	7,5 g/10min	ISO 1133-1, Method A
Tensile Strain at Break (50 mm/min)	300 %	ISO 527-2





Hardness, Shore D (1 s)

60

ISO 868

Electrical Properties

Property	Typical Value Data should not be used for specific	Test Method ation work
Dielectric constant (1 MHz)	2,34	IEC 60250
Dielectric constant (1,9 GHz)	2,34	Borealis Method
Dissipation Factor (1 MHz)	0,00006	IEC 60250
Dissipation Factor (1,9 GHz)	0,00010	Borealis Method

Processing Techniques

HE1106 can be processed over a wide range of conditions. The construction, extruder size and setup of gas injection system all play important roles for selection of proper processing conditions including the extruder temperature profile

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At the gas injection point, a temperature of approximately 190°C is recommended for optimal activation of the cell nucleating agent, which is of the exothermic type. Specific recommendations for processing conditions can be determined only when the application and type of equipment are known.

Tooling

Pressure tooling is invariably required. The die diameter is a function of the level of expansion with a greater expansion requiring a smaller die. Typically a die diameter 60% of the nominal insulation outer diameter is used.

eratures
120°C
160°C
190°C
185°C
145°C
135°C
135°C
135°C
140°C
130°C

Please contact your local Borealis representative for specific assistance.





Packaging

Package:

Bags Bulk Octabins

Storage

HE1106 should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Safety

The product is not classified as dangerous and is intended for industrial use only. Check and follow local codes and regulations!

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety, recovery and disposal of the product. For more information, contact your Borealis representative.

