Polyethylene
HE4883

Description

HE4883 - It is a fully formulated Azodicarbonamide free compound for physical foamed data cable insulation. HE4883 is a high-density polyethylene compound containing blowing agent for the production of foam or foam-skin insulation.

Applications

HE4883 is designed to use as physically foamed insulation for:

Data cables

Specifications

HE4883 meets the following material classification:

ISO 1872-PE, KEGHN, 45-D045

ASTM D1248 Type III, Class A, Category 3, Grade E1, E3

The following cable material standards are met by HE4883:

EN 50290-2-23 [1]

EN 50290-2-33

[1] Appropriate parts

Cables manufactured with HE4883 using sound extrusion practice normally comply with the following cable product standards:

IEC 61156

EN 50288

Special Features

HE4883 consists of specially selected components to offer:

Optimal cell structure
Smooth surface
Easy extrusion

High process control
Improved crushability

Physical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Density	949 kg/m³	ISO 1183-1, Method A
Bulk density	500 - 600 kg/m³	
Melt Flow Rate (140 °C/5 kg)	3,5 g/10min	ISO 1133-1, Method B
Tensile Strain at Break	600 %	ISO 527-2
Tensile Strength	23 MPa	ISO 527-2
Brittleness temperature	< -76 °C	ISO 974

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Hardness, Shore D (1 s)	61	ISO 868

Processing Techniques

HE4883 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.
At the gas injection point, a temperature of approximately 200-210°C is recommended for optimal activation of the cell nucleating agent, which is of the Azodicarbonamide free 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 die diameters 20 to 25% below the nominal insulation outer diameter are used.

Typical extrusion temperatures

Please contact your local Technical service responsible for recommendations for particular lines

Zone 1	160°C
Zone 2	190°C
Zone 3	210°C
Gas Injection	
Zone 4	210°C
Zone 5	210°C
Flange	210°C
Adapter	210°C
Head	210°C
Die	220°C

Please contact your local Borealis representative for such particulars.

Packaging

Package: Bags
Bulk
Octabins

Storage

HE4883 should be stored in dry conditions at temperatures below 50°C and protected from UV-light.

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Safety

The product is not classified as dangerous. Check and follow local codes and regulations!

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety of the product.

Disclaimer

The product(s) mentioned herein are not intended to be used for medical, pharmaceutical or healthcare applications and we do not support their use for such applications.

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