



# Polyethylene HE3366

## Description

### HE3366

It is a HDPE compound for solid insulation of telephone singles with high extrusion speed. HE3366 is designed as insulation for petroleum filled telephone cables. It is also suitable as outer skin in "foam-skin" constructions.

## Specifications

**HE3366** meets the following material classification:

ISO 1872-PE, KGHN, 45-D006  
ASTM D 1248 Type III, Class A, Category 4, Grade E8, E9

The following cable material standards are met by HE3366:

EN 50290-2-23  
DIN VDE 0207, 2Y11

Cables manufactured with HE3366 using sound extrusion practice normally comply with the following cable product standards:

IEC 60708  
EN 50407  
DIN VDE 0818

## Special features

**HE3366** consists of specially selected components to offer:

Low die head pressure  
Very good flow behaviour

## Physical Properties

Property	Typical Value	Test Method
	Data should not be used for specification work	
Density	945 kg/m <sup>3</sup>	ISO 1183
Melt Flow Rate (190 °C/2,16 kg)	0,7 g/10min	ISO 1133
Tensile Strain at Break	600 %	ISO 527
Tensile Strength	23 MPa	ISO 527
Oxidation Induction Time (200 °C),	50 min	IEC 60811-410
Brittleness temperature	< -76 °C	ASTM D 746
Environmental Stress Crack Resistance (50 °C) (Igepal 10 %), (F20)	> 48 h	IEC 60811-406
Hardness, Shore D ( 1 s)	61	ISO 868

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For information on the influence of petroleum jelly please refer to the article published on borealisgroup.com : "Impact of Petroleum Jelly on the Ageing of Telephone Wire", by going to the following link  
[http://www.borealisgroup.com/pdf/literature/borealis/technical-article/1112Impact\\_of\\_Petroleum\\_Jelly\\_on\\_the\\_Ageing\\_of\\_Telephone\\_Wire\\_Final.pdf](http://www.borealisgroup.com/pdf/literature/borealis/technical-article/1112Impact_of_Petroleum_Jelly_on_the_Ageing_of_Telephone_Wire_Final.pdf)

## Electrical Properties

Property	Typical Value	Test Method
	Data should not be used for specification work	
Dielectric constant (1 MHz)	2,33	IEC 60250
DC Volume Resistivity	10 POhm.cm	IEC 60093
Dielectric Strength	22 kV/mm	IEC 60243
Dissipation Factor (1 MHz)	0,00006	IEC 60250

## Processing Techniques

HE3366 can be processed using a wide range of process conditions at very high line speeds (typically up to 2400 m/min).

For normal extrusion equipments and applications, we suggest a melt and conductor preheating temperatures as outlined below. Heated water (up to 50°C) in the first cooling trough has been found beneficial to improve conductor adhesion.

### Tooling

Pressure tooling is invariably required. Typically "on size" die diameters are used.

### Extrusion

Barrel	165 - 230 °C
Die head	230 °C
Melt temperature	220 - 250 °C
Conductor preheating temperature	100 - 120 °C

Please contact your local Borealis representative for such particulars.

## Packaging

Package:	Bags
	Bulk
	Octabins

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## Safety

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.

## 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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