



# Polyethylene HE4872

## Description

### HE4872 -

It is a HDPE compound for solid insulation of symmetric data cable at high extrusion speed.

## Applications

HE4872 is intended for:

High frequency data transmission cables  
Outer skin of foam-skin constructions

## Specifications

HE4872 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 HE4872:

EN 50290-2-23<sup>1</sup>

<sup>1</sup> Appropriate parts

Cables manufactured with HE4872 using sound extrusion practice normally comply with the following cable product standards:

IEC 61156  
EN 50288

## Special features

HE4872 consists of specially selected components to offer:

Good conductor adhesion  
Very good flow behaviour  
Low die head pressure  
Excellent surface finish  
High output

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## Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density	945 kg/m <sup>3</sup>	ISO 1872-2/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	20 MPa	ISO 527
Oxidation Induction Time (200 °C),	> 60 min	IEC 60811-4-2/B
Brittleness temperature	< -76 °C	ASTM D 746
Environmental Stress Crack Resistance (50 °C) (Igepal 10 %), (F20)	> 80 h	IEC 60811-4-1/B
Hardness, Shore D ( 15 s)	58	ISO 868

## Electrical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Dielectric constant (1000000 Hz)	2,33	IEC 60250
DC Volume Resistivity	10 POhm.cm	IEC 60093
Dissipation Factor (1000000 Hz)	0,00007	IEC 60250

## Processing Techniques

The actual conditions will depend on the type of equipment used.

Specific recommendations for processing conditions can be determined only when the application and type of equipment are known.

Please contact your local Borealis representative for specific assistance.

### Extrusion

Typically the following process conditions are used:

Melt temperature	220 - 250 °C	
Conductor preheating temperature	100 - 120 °C	
Cooling water	30 - 50 °C	First part of cooling trough

## Packaging

Package:	Bags
	Bulk
	Octabins

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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, recovery and disposal of the product. For more information, contact your Borealis representative.

## Disclaimer

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