



Polyethylene

**Borcell™ ME1244**

Compound for Cellular insulation of Communication cables

## Description

### Borcell ME1244

It is a fully formulated compound for chemical foamed telesingles.

ME1244 is a medium-density polyethylene compound containing chemical blowing agent.

## Applications

**Borcell ME1244** is intended for:

Foam or foam-skin telesingles insulation with typical expansion of 40%

Dry core and petroleum jelly filled cables

## Specifications

**Borcell ME1244** meets the applicable requirements as below when processed using sound extrusion practice and testing procedure:

ASTM D 1248 Type II, Class A, Category 4 <sup>1</sup>  
BS 6234: Type 03  
EN 50290-2-23

IEC 60708  
NF C32-060  
ISO 1872-PE, KEHN, 33-D006 <sup>1</sup>

<sup>1</sup> Refers to Base Resin

## Special features

**Borcell ME1244** consists of specially selected components to offer:

Outstanding extrusion stability  
Good surface finish

Consistent cell structure

## Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density (Base Resin)	934 kg/m3	
Density (Compound)	937 kg/m3	
Tensile Strain at Break (50 mm/min)	500 %	ISO 527
Tensile Strength (50 mm/min)	11 MPa	ISO 527

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# Polyethylene Borcell ME1244

## Physical Properties of expanded 35 % insulation

Property	Typical Value	Test Method
Data should not be used for specification work		
Tensile Strength (50 mm/min),	11 MPa	IEC 60811-1-1
Tensile Strain (50 mm/min),	500 %	IEC 60811-1-1
Oxidation Induction Time (200 °C),	50 min	IEC 60811-4-2/B
Resistance to Thermal Ageing (105 °C)	1.500 h	IEC 60811-4-2/A
Petroleum Jelly Absorption (Insojell 1921 and 3571. Sicolene 947 and 949.)	10 %	IEC 60811-4-2

## Electrical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Dielectric constant (1 MHz) <sup>1</sup>	2,31	IEC 60250
Dissipation Factor (1 MHz)	0,0005	IEC 60250

<sup>1</sup> Measured on moulded plaques containing blowing agent but not expanded

## Processing Techniques

Borcell ME1244 can be processed over a wide range of conditions.

For all cellular products, the adoption of correct processing conditions is important to obtain the optimum physical and electrical properties of the insulated wire. The melt temperature depends on the desired capacitance. Conductor preheating is important for the mechanical properties and hot water for quenching to avoid shrink bubbles and ensure good adhesion to the conductor. Below common figures are given.

The melt temperature should be kept within a close tolerance, preferably within +/- 1°C. Modern temperature controls with PID-regulation usually give satisfactory performance

Please contact your local Borealis representative for specific assistance.

### Extrusion

Adapter	195 °C
Barrel 1	155 °C
Barrel 2	170 °C
Barrel 3	185 °C
Barrel 4	195 °C
Die	195 °C
Melt temperature	1 °C

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Conductor preheating temperature

100 - 120 °C

## Packaging

Package:           Bags  
                          Bulk  
                          Octabins

## Storage

**Borcell ME1244** should be stored in dry conditions at temperatures below 50°C and protected from UV-light.

## Safety

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

Please see our Safety Data 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.**

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability whatsoever for the accuracy and completeness of such information.

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