Polyethylene
ME1254

Description
ME1254 is a fully formulated Azodicarbonamide (ADCA)-free compound for chemical foamed telesingles.

ME1254 is a medium-density polyethylene compound containing chemical blowing agent.

Applications
ME1254 is intended for:

Foam or foam-skin insulation for telephone singles and data cable with typical expansion of 35-40%.

Dry core and petroleum jelly filled cables

Specifications
ME1254 passes the requirements for long-term stability test for filled cables (100°C) according to EN 60811-408.

Special Features
ME1254 consists of specially selected components to offer:

Outstanding extrusion stability
Good surface finish
Consistent cell structure
ADCA-free

Physical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Density (Compound)	943 kg/m³	ISO 1183-1, Method A
Bulk density	500 - 600 kg/m³	
Tensile Strain at Break (25 mm/min)	500 %	ISO 527-2
Tensile Strength (25 mm/min)	11 MPa	ISO 527-2
Oxidation Induction Time (200 °C)	> 60 min	ISO 11357-6
Hardness, Shore D (1 s)	58	ISO 868

Physical Properties of expanded (38 %) insulation

Property	Typical Value Data should not be used for specification work	Test Method
Tensile Strength (25 mm/min)	11 MPa	EN 60811-408
Tensile Strain (25 mm/min)	500 %	EN 60811-408

Electrical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Dielectric constant (1 MHz) [1]	2,32	ASTM D 150
Dissipation Factor (1 MHz) [1]	0,0005	ASTM D 150

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[1] Measured on moulded plaques containing blowing agent but not expanded

Processing Techniques

ME1254 can be processed over a wide range of conditions.

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. The melt temperature should be kept within a close tolerance within +/- 1°C. Conductor preheating is important for the insulation mechanical properties and to ensure good adhesion to the conductor.

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 5-10% below the nominal insulation outer diameter are used.

Typical extrusion	
Barrel 1	110 °C
Barrel 2	145 °C
Barrel 3	190 °C
Barrel 4	205 °C
Barrel 5	220 °C
Die	220 °C
Melt temperature	220 °C
Conductor preheating temperature	100 °C

Please contact your local Borealis representative for specific extruder assistance.

Packaging

Package:	Bags
	Bulk
	Octabins

Storage

ME1254 should be stored in dry conditions at temperatures below 50°C and protected from UV-light.

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.

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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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