PRODUCT DATA SHEET

Polyethylene

ME6032

Medium Density Polyethylene

Description

ME6032 is a MDPE compound for solid insulation of telephone singles and data cables at high extrusion speed. It can be used as an inner skin in skin-foam -skin constructions.

Typical characteristics

ME6032 can be described with following typical characteristics:

High extrusion speed
Excellent surface finish
Good copper adhesion
High output

Applications

ME6032 is intended for following applications:

Data cables
Dry core and petroleum jelly filled cables

Specifications

ME6032 and/or articles produced from it, are expected to meet the applicable requirements included in the below mentioned standards provided it is processed using sound material handling and processing practices as well as appropriate testing procedures.

ASTM D1248 Type II, Class A, Category 5, Grade E4, E5
IEC 60708
EN 50290-2-23

Physical properties

Property	Typical value *	Unit	Test method
Density [1]	928	kg/m³	ISO 1183-1
Melt flow rate (190 °C/2.16 kg) [2]	0.3	g/10min	ISO 1133-1
Tensile strain at break (50 mm/min)	600	%	ISO527-2
Tensile strength (50 mm/min)	17	MPa	ISO 527-2
Oxidation induction time (200 °C)	50	min	ISO 11357-6
Resistance to thermal ageing (105 °C)	> 1.000	h	IEC 60811-408
Brittleness temperature	< -76	°C	ASTM D746
Environmental stress crack resistance (50°C, Igepal 100%, F20)	> 250	h	ASTM D1693
Hardness, Shore D [3]	53	-	ISO 868

* Data should not be used for specification work

[1] *Method A*
[2] *Method B*
[3] *1 s*

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Electrical properties

Property	Typical value *	Unit	Test method
Dielectric constant (1 MHz)	2.30	-	IEC 60250
DC Volume resistivity	10	PΩm	IEC 60093
Dielectrical strength	22	kV/mm	IEC 60243
Dissipation factor (1 MHz)	0.00015	-	IEC 60250

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Processing techniques

The actual conditions will depend on the type of equipment used. ME6032 can be processed using a wide range of process conditions at very high line speeds (typically up to 2400 m/min). For normal extrusion equipment and applications, we suggest a melt and conductor preheating temperatures as outlined below.

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

Processing setting	Typical value/range
Barrel temperature	165 - 210 °C
Die head temperature	220 °C
Melt temperature	220 - 230 °C
Conductor preheating temperature	90 - 100 °C

Please contact your local Borealis representative for specific assistance.

Packaging and storage

Package: Bulk, Octabins, Bags

ME6032 has a shelf life of 24 months from production date if stored in unopened original packages, under dry and clean conditions at temperatures between 10 - 30 °C (50 - 85 °F). Material shelf life is affected by the storage conditions and extreme conditions influence the general material quality and performance. It is also recommended to ensure proper stock rotation by First In – First Out principle.

Product compliance documents

Latest versions of product safety information sheets (PSIS), product safety data sheets (SDS) and other product liability documents are available in our website www.borealisgroup.com.

Sustainability aspects

Borealis is ever mindful of the impact of our products on the planet. We promote Design for Circularity (DfC) and Design for Recycling (DfR) to conserve natural resources and to reduce the environmental impact of products over their entire lifetime (including production, use phase and after phase). DfR helps ensure that material can be effectively recycled while maximizing the material performance efficiency.

Further information on sustainability and Design for Recycling (DfR) can be found from our websites www.borealisgroup.com and www.borealiseverminds.com.

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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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