Polyethylene

LE6027

Black Linear Low Density Polyethylene Jacketing Compound for Energy and Communication

Description

LE6027 is a black linear low density copolymer modified polyethylene compound. It is characterized by excellent stress crack resistance and mechanical properties and low temperature performance in combination with good extrudability.

LE6027 contains 2,5 % well dispersed furnace black in order to ensure excellent weathering resistance.

Applications

LE6027 is designed for jacketing of energy and communication cables.

Specifications

LE6027 meets the applicable requirements as below when processed using sound extrusion practice and testing procedure:

ASTM D 1248 Type I, Class C, Category 4, Grade E4, E5, J3, W2-4

ISO 1872-PE, KCHL, 23-D012

The following cable material standards are met by LE6027:

EN 50290-2-24
DMP 5, 7, 8, 9, 10, 12, 14, 15

DMP 17

Cables manufactured with LE6027 using sound extrusion practice normally comply with the following cable product standards:

IEC 60708
IEC 60794
IEC 60502, Part 2, Type ST3, ST7
IEC 60840, Type ST3
IEC 60840, Type ST7
HD 632 S2, ST3, ST7
EN 50407
EN 187105

HD 603 S1, DMP 5, 7, 8
HD 620 S2, DMP 9, 10, 12, 14, 15, 17
AEIC CS8
ANSI/ICEA S-94-649
ANSI/ICEA S-97-682
UL 1072
ICEA S-93-639

Physical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Density (Base Resin)	920 kg/m³	ISO 1183-1, Method A
Density (Compound)	933 kg/m³	ISO 1183-1, Method A
Melt Flow Rate (190 °C/2,16 kg)	0,7 g/10min	ISO 1133-1, Method A
Flexural Modulus	350 MPa	ISO 178
Tensile Strain at Break (25 mm/min)	> 900 %	ISO 527-2
Tensile Strength (25 mm/min)	25 MPa	ISO 527-2

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Absorption coefficient, at 375 nm (abs/m)	400	ASTM D3349
Brittleness temperature	< -76 °C	ASTM D 746
Environmental Stress Crack Resistance (50 °C, Igepal 10 %, F0)	> 2.500 h	ASTM D 1693
Hardness, Shore D (1 s)	50	ISO 868

Electrical Properties

Property	Typical Value Data should not be used for specification work	Test Method
DC Volume Resistivity	10 PΩcm	IEC 60093
Dielectric Strength	20 kV/mm	IEC 60243

Processing Techniques

LE6027 provides excellent surface finish and allows a broad processing window.

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

Packaging

Package: Bags
Octabins
Bulk

Storage

LE6027 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.
More information on storage is found in the Safety data sheet (SDS) / Product safety information sheet (PSIS) for this product.

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

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