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Borstar® HE3366

NATURAL BIMODAL HD POLYETHYLENE COMPOUND FOR SOLID INSULATION FOR TELEPHONE SINGLES

DESCRIPTION

Borstar HE3366 is a high density insulation compound designed for high extrusion speeds.
Borstar HE3366 is produced with a Borouge Borstar technology process and is characterised by:

* Good processability
* High tensile strength and elongation
* Excellent heat-ageing performance
* Good petroleum jelly resistance
* Very stable against environmental stress-cracking (ESCR)

The excellent properties of **Borstar HE3366** will give advantages in manufacturing, installation and performance of telephone cables.

Borstar HE3366 contains a special metal deactivator to ensure excellent long-term heat stability.

APPLICATIONS

Borstar HE3366 is intended for insulation in dry core and petroleum jelly filled cables. It is also suitable as outer skin in “foam-skin” constructions.

SPECIFICATIONS

Borstar HE3366 meets the applicable requirements as below when processed using sound extrusion practice and testing procedure:

- ASTM D 1248 Type III, Class A, Category 4, Grade E8, E9
- BS 6234: Type H03
- EN 50288
- EN 50290-2-23
- IEC 60708
- ISO 1872-PE, KHN, 50-D006
- NF C 32-060
- US MIL SPEC LP 390 C, Type II, Class H, Grade 1, Category 4

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Borouge is part of the ADNOC and Borealis group of companies

PHYSICAL PROPERTIES		Typical Value*	Unit	Test Method
Density, Base Resin		952	kg/m^3	ISO 1872-2/ISO 1183-D
Melt Flow Rate	(190°C. 2.16 kg)	0.70	g/10 min	ISO 1133
Melt Flow Rate	(190°C. 5.0 kg)		g/10 min	ISO 1133
Tensile Strength	(50 mm/min)	>20	MPa	ISO 527
Elongation	(50 mm/min)	>600	%	ISO 527
ESCR (50ºC, 10% Igepal), (no crack)		>500	h	IEC 60811-4-1/B
Oxygen Induction Time, 200ºC, Al-pan	(115ºC, 6 h)	>100	min	IEC 60811-4-2/B
Flexural Modulus		400	MPa	ASTM D 790
Petroleum Jelly Absorption		7	%	IEC 60811-4-2
Durometer Hardness	(1 sec)	55	Shore D	ISO 868
Brittleness Temperature		<-76	ºC	ASTM D 746

* Data should not be used for specification work

ELECTRICAL PROPERTIES		Typical Value*	Unit	Test Method
Dielectric Constant	(1 MHz)	2.34	-	IEC 60250
Dissipation Factor	(1 MHz)	0.00005	-	IEC 60250
DC Volume Resistivity		10^{16}	Ω cm	IEC 60093
Dielectric Strength		22	kV/mm	IEC 60243

* Data should not be used for specification work

PROCESSING GUIDELINES

Borstar HE3366 provides very good surface finish and high output rates over a broad range of conditions. For normal extrusion equipments and applications we suggest a melt temperature and conductor preheating according to the table below:

Conductor preheating temperature: 90-120ºC
Melt temperature: 200-230ºC
Cooling water temperature of the first part of the cooling trough: 50º C

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Specific recommendations for processing conditions can be determined only when the application and type of equipment are known. Please contact your local Borouge representative for such particulars.

DELIVERY

Form: Granules
Package: 25 kg bags - 1.375 ton loads
650 kg bigbags

SAFETY

Borstar HE3366 is not classified as a dangerous preparation.

The products are supplied in form of free-flowing granules of approximately 3 - 4 mm sizes and can be readily handled with commercially available equipment. Handling and transport of the products may generate some dust and fines, which constitute a potential hazard for dust explosion. All metal parts in the system should therefore be properly grounded. Properly designed equipment and good housekeeping will reduce the risk. Check and follow local codes and regulations!

Inhalation of any type of dust should be avoided as it may cause irritation of the respiratory system.

The products are intended for industrial use only. A Safety Data Sheet is available on request. Please contact your Borouge representative for more details on various aspects of safety, recovery and disposal of the product.

RECYCLING

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

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