Manufacturer website: https://www.ineos.com/businesses/ineos-olefins-polymers/

BPD2000E

Product Technical Information

BPD2000E is an unstabilised and clean low density polyethylene.

Applications

BPD2000E is designed for use in Medium/High Voltage (MV/HV) power cables insulation using the direct peroxide injection (DPI) process and applications requesting extra cleanliness.

Suitability of **BPD2000E** for insulation of HV cables and voltage limitation depend on experience acquired and validations undergone by the cable manufacturer.

Properties	Conditions	Test Methods	Values	Units
Physical				
Density ISO 1872-1	23°C	ISO 1183-2	923	kg/m³
Rheological				
Melt Flow Rate	190°C/2.16kg	ISO 1133-1	2.0	g/10min
Mechanical*				
Tensile strain at Break	23°C	ISO 527-1,-2	>500	%
Tensile strength at break	23°C	ISO 527-1,-2	18	MPa
Electrical*				
Dielectric strength, short time		ASTM D 149	>22	kV/mm
Dielectric constant	50 Hz	ASTM D 150	2.3	-
Dissipation factor	50 Hz	ASTM D 150	300	µrad
DC volume resistivity	23°C	ASTM D 257	$>10^{15}$	Ω cm

Data should not be used for specification work

* Tests on moulded crosslinked plaques prepared according to INEOS O&P Europe method

Compliance to Regulations

When adequately processed with relevant additive package, **BPD2000E** will allow producing crosslinked insulation meeting the following industry cable specifications:

- IEC 60502-2
- IEC 60840
- CENELEC HD 620 S2: 2010, table 2A, Compounds DIX3 to DIX14

Processing guidelines

BPD2000E will be extruded in Direct Peroxide Injection process on CV lines. Additives such as antioxidants must be introduced in order to fulfill the required ageing tests. The recommended extrusion melt temperature is typically between 135°C to 145°C depending on the nature of peroxide.

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Storage

The product should be stored in a dry and dust free environment at temperature below 50°C. Exposure to direct sunlight should be avoided as this may lead to product deterioration. It is advised to process the product within maximum one year after delivery.

Regulatory Information

The product and uses described herein may be subject to specific requirements or limitations for use in certain applications like food contact, drinking water or medical devices. Further information may be obtained from the website www.ineos.com where a specific Regulatory Certificate is available for each grade under the heading "SDS & Regulatory Certificate".

Unless specifically indicated, the product mentioned herein is not suitable for applications in the medical or pharmaceutical sectors.

Health and Safety Information

The product described herein may require precautions in handling. The available product health and safety information for this material is contained in the Safety Data Sheet (SDS) that may be obtained from the website www.ineos.com. Before using any material, a customer is advised to consult the SDS for the product under consideration for use.

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