BPD4020

Product Technical Information

BPD4020 Natural

BPD4020 is a natural medium density polyethylene grade designed for the extrusion of jackets of power and telecommunication cables.

It offers an excellent resistance to environmental stress cracking, good low temperature properties, and an excellent extrudability.

BPD4020 is stabilised and has excellent ageing properties. However it is not UV stabilised, so for outdoor applications an anti-UV package needs to be added to lead to a complete outdoor weatherability.

Properties	Conditions	Test Methods	Values	Units
Rheological				
Melt Flow Rate	190°C/5kg	ISO 1133-1	0.85	g/10min
Melt Flow Rate	190°C/2.16kg	ISO 1133-1	0.20	g/10min
Physical				
Density ISO 17855-1	23°C	ISO 1183-1	938	kg/m³
Mechanical				
Brittleness temperature		ISO 974	-76	°C
Elongation at Break		ISO 527-2	>600	%
Heat deformation resistance	6 hours at 115°C	IEC 60811-508 ; IEC 60811-509	<50	%
Retention of mechanical properties afer ageing	in oven 10days at 100°C	IEC 60811-401	>75	%
Shore D hardness	1 second	ISO 868	61	-
Tensile strength at Break		ISO 527-2	34	MPa
Tensile Strength at Yield		ISO 527-2	19	MPa
Vicat softening temperature	Method A (10N)	ISO 306	116	°C
Environmental Stress Cracking Resistance (BTT)	F0, 10 % Igepal	IEC 60811-406	>1000	h

Data should not be used for specification work

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Commercial Information

Packaging
BPD4020 is sold in pellet form and is available in the following packaging: 25kg bags, 1.1 ton holbins and bulk tankers.

Processing Data

The good processing characteristics of **BPD4020** allow wide latitude of both equipment and process conditions. Normally the extruder barrel temperatures should be set to give a resulting melt temperature in the range of 210 - 230°C. Processing above 230°C should be avoided to prevent heat degradation.
BPD4020 in its original packaging is ready for use, but for outdoor applications an anti UV system in a master batch form should be added during extrusion. Extreme temperature changes and a high percentage of atmospheric humidity can lead to condensation within the packaging. Pre-drying of the material is advisable in this case.
On a commercial line 150mm - 20 L/D a typical temperature profile would be:
Barrel: 180 - 190 - 200 - 200 °C Head: 210 °C Die: 210°C

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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