

INEOS Wire & Cable BPD3801

Linear Low Density Polyethylene

INEOS Olefins & Polymers Europe

Message:

BPD3801 is a polyethylene copolymer containing hexene-1 as the comonomer produced with a metallocene catalyst. BPD3801 represents an interesting balance of properties for Wire & Cable applications.

When compounded with suitable additives, is designed for use in silane crosslinking processes (Monosil[®]). It has been developed for LV insulation or jacketing applications.

Benefits and Features

Suitable Melt Index and Density for Wire & Cable applications

High X-link efficiency

Higher output and productivity

High flexibility

Very good Mechanical Properties and Stress Cracking Resistance

Very good smoothness

General Information			
Features	High ESCR (Stress Cracking Resistance)		
	hexene comonomer		
	Crosslinkable		
	Good flexibility		
Uses	Low voltage insulation		
	Cable sheath		
	Wire and cable applications		
	Insulating material		
Forms	Particle		
Processing Method	Extrusion		
Physical	Nominal Value	Unit	Test Method
Density	0.916	g/cm ³	ISO 1872
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	5.5	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Break)	20.0	MPa	IEC 811-1-1
Tensile Strain (Break)	> 300	%	IEC 811-1-1
Thermal	Nominal Value	Unit	Test Method
Thermoset	60	%	IEC 60811-2-1
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	> 1.0E+17	ohms · cm	ASTM D257
Dielectric Constant (50 Hz)	2.30		ASTM D150
Dissipation Factor (50 Hz)	< 4.0E-3		ASTM D150
Additional Information			

BPD3801 when grafted in the laboratory with 1.1 % of a suitable silane/peroxide mixture and 0.05 % of a tin condensation catalyst, typically gives the following results on a 1.5 mm² cable after curing 4h in water at 80 °C.

Extrusion	Nominal Value	Unit
Cylinder Zone 1 Temp.	150	°C
Cylinder Zone 2 Temp.	160	°C
Cylinder Zone 3 Temp.	170	°C
Cylinder Zone 4 Temp.	180	°C
Cylinder Zone 5 Temp.	190	°C
Melt Temperature	225 - 235	°C
Die Temperature	270	°C
Extrusion instructions		

Cylinder zone 6 temp: 200°C Cylinder zone 7 temp: 210°C Head Temperatures: 220-220-230°C

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