INEOS Wire & Cable BP28D780

Low Density Polyethylene

INEOS Olefins & Polymers Europe

Message:

BP28D780 is a low density polyethylene compound suitable for the thin walled insulation of telephone wires. BP28D780 combines good processability at very high extrusion speeds with excellent mechanical properties, a high resistance to copper catalysed thermal oxidation and excellent resistance to petroleum jelly absorption. The combination of these properties in BP28D780 makes it suitable for use as telephone singles insulation in air spaced and filled cables and in environments subject to high temperatures. BP 28 D780 contains a metal deactivator.

General Information			
Additive	Metal deactivator		
Features	Workability, good		
Uses	Wire and cable applications Communication wire insulation material		
Agency Ratings	ASTM D 1248, II, Class A, Cat. 5, Grade D5 ASTM D 1248, II, Class A, Cat. 5, Grade E4 BS 3573 BS 6234 Type 03 BT M 237B CENELEC HD 624.3 S1, L/MD Solid CNET CM 24 IEC 60708 ISO 1872 PE KHKN 27D003 VDE 0207, Part 103, L/MD Solid VDE 0207, Part 2, Type 2Y12		
RoHS Compliance	Contact manufacturer		
Forms	Particle		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	0.929	g/cm³	ISO 1183/D
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.25	g/10 min	ISO 1133
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D, 1 sec)	56		ISO 868
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Stress			IEC 60811-1-1
Yield	15.0	MPa	IEC 60811-1-1
Fracture	18.0	MPa	IEC 60811-1-1
Tensile Strain (Break)	550	%	IEC 60811-1-1
Thermal	**Nominal Value**	**Unit**	**Test Method**

Vicat Softening Temperature	106	°C	ISO 306/A

Electrical	Nominal Value	Test Method
Dielectric Constant (1 MHz)	2.28	ASTM D1531
Dissipation Factor (1 MHz)	1.0E-4	ASTM D1531

Additional Information

Properties of Insulation with 0.2 mm radial thickness on 0.5 mm diameter copper conductors:-Tensile Strength at Break, IEC 811-1-1: 20 MPa-Elongation, IEC 811-1-1: 600%-Ageing in Air, Retention of Tensile Properties, IEC 811-1-2, 10 days, 100°C: 90%-Petroleum Jelly Absorption Weight Gain, IEC 811-4-2, Preconditioned in Petroleum Jelly, 10 days, 70°C: 11%-Retention of Tensile Properties, IEC 811-1-1, Preconditioned in Petroleum Jelly, 10 days, 70°C: 90%-Resistance to Ageing in Air at 105°C, BT M237, IEC 811-4-2, Preconditioned in Petroleum Jelly, 14 days, 60°C: 1500 h

Extrusion	Nominal Value	Unit
Melt Temperature	210 - 280	°C

Extrusion instructions

Screw L/D ratio: >20:1Compression ratio: >3

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