Product Datasheet

ExxonMobil Signature Polymers

ExxonMobil™ HDPE HPA 020HD5 Wire & Cable

High Density Polyethylene Resin

Product Description

HPA 020HD5 is a HDPE grade for Medium/High Voltage power cable jacketing. The grade should be used in blends with LLDPE to improve Environmental Stress Crack Resistance (ESCR). Sufficient Carbon Black or UV stabilizer should be added to meet cable jacketing specifications.

General

Availability [1]	▪ Africa & Middle East	▪ Asia Pacific	▪ Europe
Applications	▪ Automotive wiring compounds	▪ MV/HV thermoplastic jacketing	▪ Telecom / Data / LAN cable insulation
Form(s)	▪ Pellets		
Revision Date	▪ 09/15/2016		

Resin Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Density	0.952	g/cm³	0.952	g/cm³	ASTM D1505
High Load Melt Index (190°C/21.6 kg)	9.0	g/10 min	9.0	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)	0.35	g/10 min	0.35	g/10 min	ASTM D1238

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Vicat Softening Temperature	264	°F	129	°C	ASTM D1525

Molded Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Strength at Yield	3900	psi	27	MPa	ASTM D638
Tensile Strength at Break	4800	psi	33	MPa	ASTM D638
Elongation at Yield	9	%	9	%	ASTM D638
Elongation at Break	840	%	840	%	ASTM D638
Flexural Modulus - 1% Secant	140000	psi	960	MPa	ASTM D790
Durometer Hardness (Shore D, 15 sec)	63		63		ASTM D2240

Electrical	Typical Value (English)		Typical Value (SI)		Test Based On
Volume Resistivity	6.5E+16	ohms·cm	6.5E+16	ohms·cm	ASTM D257
Dielectric Constant (60 Hz)	2.1		2.1		ASTM D150
Dissipation Factor (60 Hz)	4E-4		4E-4		ASTM D150

Legal Statement

This product is not intended for use in food contact application.

This product is not intended for use in medical applications and should not be used in any such applications.

Processing Statement

Specimens were compression molded in accordance with ASTM D4703. The value listed as Density, ASTM D1505, was tested in accordance with EMC test methods.

Notes

Typical properties: these are not to be construed as specifications.

[1] Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

Manufacturer website: https://www.exxonmobilchemical.com/en/products/polyethylene

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