

ExxonMobil™ HDPE HPA 020 Wire & Cable

High Density Polyethylene Resin

Product Description

HPA 020 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

Applications	▪ Automotive wiring compounds ▪ MV/HV thermoplastic jacketing ▪ Telecom / Data / LAN cable insulation
Form(s)	▪ Pellets

Resin Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.952 g/cm ³	0.952 g/cm ³	ExxonMobil Method
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

