

ExxonMobil™ HDPE HPA 020 Molding

High Density Polyethylene (HMW) Resin

Product Description

HPA 020 is a high molecular weight HDPE resin, characterized by an excellent balance of rigidity, ESCR and impact strength.

General

Additive	Thermal Stabilizer: Yes
Applications	- Drainage Pipes - Heavy Gauge Sheet - Large Part Blow Molding - Large Parts & Containers (20 to 100 L) for non-food end uses

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	259 °F	126 °C	ASTM D1525

Molded Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Modulus (0.20 in/min (5.0 mm/min))	150000 psi	1000 MPa	ASTM D638
Tensile Stress at 100%			ASTM D638
2.0 in/min (50 mm/min)	2000 psi	14 MPa	
Tensile Strength at Yield			ASTM D638
2.0 in/min (50 mm/min)	3000 psi	21 MPa	
Elongation at Break (2.0 in/min (50 mm/min))	> 100 %	> 100 %	ASTM D638
Environmental Stress-Crack Resistance			ASTM D1693
10% Igepal	330 hr	330 hr	
100% Igepal	> 600 hr	> 600 hr	
Durometer Hardness (Shore D, 15 sec)	61	61	ASTM D2240

Impact	Typical Value (English)	Typical Value (SI)	Test Based On
Notched Izod Impact Strength	8.6 ft-lb/in ²	18 kJ/m ²	ISO 180/1A

