Product Datasheet

ExxonMobil Signature Polymers

ExxonMobil™ HDPE HPA 020HD5 Molding

High Density Polyethylene (HMW) Resin

Product Description

HPA 020HD5 is a high molecular weight HDPE resin, characterized by an excellent balance of rigidity, ESCR and impact strength.

General

Availability [1]	▪ Africa & Middle East	▪ Asia Pacific	▪ Europe
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		
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	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/in²	18	kJ/m²	ISO 180/1A

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

The molded properties have been measured on compression molded sheets, prepared according to ASTM D4703 and ASTM D 638. ASTM D 638: Specimen type T1 / thickness 3 mm (118 mil); tensile modulus : speed of testing 5 mm/min (197 mil/min); tensile strength at yield and elongation at break: speed of testing 50 mm/min (1970 mil/min). ASTM D1693: Conditions B, F50, 10 % Igepal and 100 % Igepal

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

ExxonMobil™ HDPE HPA 020HD5 Molding
High Density Polyethylene (HMW) Resin

For additional technical, sales and order assistance: Contact Us

©2025 ExxonMobil. ExxonMobil, the ExxonMobil logo, the interlocking "X" device and other product or service names used herein are trademarks of ExxonMobil, unless indicated otherwise. This document may not be distributed, displayed, copied or altered without ExxonMobil's prior written authorization. To the extent ExxonMobil authorizes distributing, displaying and/or copying of this document, the user may do so only if the document is unaltered and complete, including all of its headers, footers, disclaimers and other information. You may not copy this document to or reproduce it in whole or in part on a website. ExxonMobil does not guarantee the typical (or other) values. Any data included herein is based upon analysis of representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, freedom from patent infringement, suitability, accuracy, reliability, or completeness of this information or the products, materials or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. This document is not an endorsement of any non-ExxonMobil product or process, and we expressly disclaim any contrary implication. The terms "we," "our," "ExxonMobil Product Solutions" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Product Solutions Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

exxonmobilchemical.com