ExxonMobil Signature Polymers

ExxonMobil™ HD 5403

High Density Polyethylene

Product Description

ExxonMobil™ HD 5403 is a high density polyethylene blow molding grade offering a good combination of stiffness and stress crack resistance.

General

Availability [1]	▪ Africa & Middle East ▪ Europe	▪ Latin America ▪ North America	
Additive	▪ Thermal Stabilizer: Yes	▪ Antistatic: No	
Applications	▪ Drainage Pipes ▪ Food Packaging	▪ Household and Industrial chemical containers ▪ Pharmaceutical Packaging	▪ Thermoformed Parts ▪ Thin Gauge Sheet
Form(s)	▪ Pellets		
Revision Date	▪ 08/21/2020		

Resin Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Density	0.954	g/cm³	0.954	g/cm³	ASTM D1505
Melt Index (190°C/2.16 kg)	0.30	g/10 min	0.30	g/10 min	ASTM D1238

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Deflection Temperature Under Load (DTUL) at 66psi - Unannealed	167	°F	75	°C	ASTM D648
Vicat Softening Temperature	261	°F	127	°C	ASTM D1525
Peak Melting Temperature	268	°F	131	°C	ExxonMobil Method
Crystallization Peak, Tc	244	°F	118	°C	ExxonMobil Method

Molded Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Strength at Yield	4100	psi	29	MPa	ASTM D638
Tensile Strength at Break					ASTM D638
2.0 in/min (50 mm/min)	2900	psi	20	MPa	
Elongation at Yield	9	%	9	%	ASTM D638
Flexural Modulus					
1% Secant : 0.051 in/min (1.3 mm/min)	160000	psi	1100	MPa	ASTM D790A
2% Secant	130000	psi	910	MPa	ASTM D790
Environmental Stress-Crack Resistance					ASTM D1693B
100% Igepal	30	hr	30	hr	
Durometer Hardness (Shore D, 15 sec)	63		63		ASTM D2240

Impact	Typical Value (English)		Typical Value (SI)		Test Based On
Charpy Notched Impact Strength					ISO 179/1eA
-4°F (-20°C)	2.9	ft·lb/in²	6.0	kJ/m²	
73°F (23°C)	4.8	ft·lb/in²	10	kJ/m²	

Additional Information

All molded properties were measured on compression molded plaques. HD 5403 is NSF® -51 Certified and UL recognized. Contact your ExxonMobil Chemical representative for details. HD 5403 has US Pharmacopoeia & European Pharmaceutical recognition.

Legal Statement

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

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

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.

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For additional technical, sales and order assistance: Contact Us

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