Product Datasheet

ExxonMobil Signature Polymers

ExxonMobil™ HD 5705

High Density Polyethylene

Product Description

HD 5705 is a HDPE blow molding resin designed for high performance packaging applications. Containers made from HD 5705 exhibit a unique combination of stiffness and environmental stress cracking resistance. These properties, coupled with excellent processability on both continuous and intermittent equipment, afford significant lightweighting and/or fast-cycling potential in many applications. HD 5705 does not contain any antistat.

General

Availability [1]	▪ Latin America	▪ North America	
Additive	▪ Thermal Stabilizer: Yes	▪ Antistatic: No	
Applications	▪ Caps and Closures ▪ Compression Moldings ▪ Food Packaging	▪ Household and Industrial chemical containers ▪ Pharmaceutical Packaging ▪ Thermoformed Parts	▪ Thin Gauge Sheet
Revision Date	▪ 03/01/2010		

Resin Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Density	0.957	g/cm³	0.957	g/cm³	ASTM D1505
Melt Index (190°C/2.16 kg)	0.46	g/10 min	0.46	g/10 min	ASTM D1238

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Brittleness Temperature	< -105	°F	< -76	°C	ASTM D746

Molded Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Strength at Yield	4400	psi	30	MPa	ASTM D638
Elongation at Break	1100	%	1100	%	ASTM D638
Flexural Modulus	210000	psi	1400	MPa	ASTM D790A
Environmental Stress-Crack Resistance					ASTM D1693
100% Igepal	> 1000	hr	> 1000	hr	

Impact	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Impact Strength	120	ft·lb/in²	260	kJ/m²	ASTM D1822

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.

Processing Statement

1. Values are typical and should not be interpreted as specifications. Values may change with future development. 2. All molded properties were measreud on compression molded plaques. 3. Bluk Density: 585 Kg/m3 (36.5 lbs/ft3) 4. Flexural modulus tested using Procedure A (1"x3"x0.125"), tangent calculation. 5. ESCR tested using Condition B, 100 % Igepal. 6. HD 5705 has NSF recognition. Contact your ExxonMobil Chemcial Representative for details.

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

Product Datasheet

ExxonMobil™ HD 5705
High Density Polyethylene

For additional technical, sales and order assistance: Contact Us

©2026 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

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