Product Datasheet

ExxonMobil Signature Polymers

ExxonMobil™ HD 5001

High Density Polyethylene

Product Description

ExxonMobil™ HD 5001 resin is a high molecular weight HDPE blown film resin. Films made from HD 5001 exhibit excellent impact and toughness properties, as well as high stiffness. HD 5001 is particularly recommended for films less than 0.5 mil in thickness.

General

Availability [1]	▪ Africa & Middle East ▪ Asia Pacific	▪ Europe ▪ Latin America	▪ North America
Additive	▪ Antiblock: No	▪ Slip: No	▪ Thermal Stabilizer: Yes
Applications	▪ Blown Film ▪ Deli Wrap ▪ Food Packaging	▪ Grocery Sacks ▪ Heavy Duty Bags ▪ Institutional Can Liners	▪ Merchandise Bags ▪ Produce Bags On A Roll ▪ Trash Bags
Form(s)	▪ Pellets		
Revision Date	▪ 03/23/2023		

Resin Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Density	0.950	g/cm³	0.950	g/cm³	ExxonMobil Method
Melt Index (190°C/2.16 kg)	0.060	g/10 min	0.060	g/10 min	ExxonMobil Method
Peak Melting Temperature	266	°F	130	°C	ExxonMobil Method

Film Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Tensile Strength at Yield MD	5200	psi	36	MPa	ASTM D882
Tensile Strength at Yield TD	4500	psi	31	MPa	ASTM D882
Tensile Strength at Break MD	13000	psi	90	MPa	ASTM D882
Tensile Strength at Break TD	10000	psi	70	MPa	ASTM D882
Elongation at Break MD	330	%	330	%	ASTM D882
Elongation at Break TD	430	%	430	%	ASTM D882
Secant Modulus MD - 1% Secant	150000	psi	1100	MPa	ASTM D882
Secant Modulus TD - 1% Secant	160000	psi	1100	MPa	ASTM D882
Dart Drop Impact [2]	280	g	280	g	ASTM D1709A
Elmendorf Tear Strength MD [2]	7	g	7	g	ASTM D1922
Elmendorf Tear Strength TD [2]	40	g	40	g	ASTM D1922

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

Film (0.5 mil/12.7 micron) made on a 1.97 inch (50 mm) blown film line with a 4:1 blow-up ratio, a 7.5:1 stalk to die diameter ratio, a melt temperature of 370°F, (188°C), a a 59 mil (1.5mm) die gap at a rate of 10.75 lbs/hr/in die circumference (1.92 kg/hr/cm).

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.

[2] Normalized to 0.5 mil

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

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For additional technical, sales and order assistance: Contact Us

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