Product Datasheet

ExxonMobil Signature Polymers

Exceed™ Stiff+ m 0820.ML

Metallocene Polyethylene

Product Description

Exceed™ Stiff+ m 0820.ML is a performance linear low density polyethylene 1-hexene copolymer designed to deliver exceptionally high toughness and stiffness while being easy to process on blown film lines. The combination of high dart drop impact and stiffness, which is greater than the density suggests, can help increase the durability of coex packaging while potentially helping converters simplify formulations by reducing the need to blend HDPE for stiffness or LDPE for processing. TnPP is not intentionally added to Exceed™ Stiff+ m 0820.ML.

General

Availability [1]	▪ Africa & Middle East ▪ Asia Pacific	▪ Europe ▪ Latin America	▪ North America
Additive	▪ Exceed™ Stiff+ m 0820.ML: Antiblock: No; Slip: No; Processing Aid: Yes; Thermal Stabilizer: Yes		
Applications	▪ Air Pillows ▪ Blown Film ▪ Food Packaging	▪ Hot-Fill Bag-in-Box Packaging ▪ Laminated Full-PE Packaging ▪ Lamination Film	▪ Liquid Packaging ▪ Medium and heavy duty sacks ▪ Non-Laminated Coex Film
Revision Date	▪ 03/16/2022		

Resin Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Density / Specific Gravity	0.920	g/cm³	0.920	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	0.80	g/10 min	0.80	g/10 min	ASTM D1238
Peak Melting Temperature	255	°F	124	°C	ExxonMobil Method

Film Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Tensile Strength at Yield MD	1400	psi	9.9	MPa	ASTM D882
Tensile Strength at Yield TD	1600	psi	11	MPa	ASTM D882
Tensile Strength at Break MD	10000	psi	70	MPa	ASTM D882
Tensile Strength at Break TD	8000	psi	60	MPa	ASTM D882
Elongation at Break MD	430	%	430	%	ASTM D882
Elongation at Break TD	660	%	660	%	ASTM D882
Secant Modulus MD - 1% Secant	32000	psi	220	MPa	ASTM D882
Secant Modulus TD - 1% Secant	40000	psi	280	MPa	ASTM D882
Dart Drop Impact	670	g	670	g	ASTM D1709A
Elmendorf Tear Strength MD	210	g	210	g	ASTM D1922
Elmendorf Tear Strength TD	510	g	510	g	ASTM D1922
Puncture Force	11	lbf	48	N	ExxonMobil Method
Puncture Energy	31	in·lb	3.5	J	ExxonMobil Method

Optical Properties	Typical Value	(English)	Typical Value	(SI)	Test Based On
Gloss (45°)	45		45		ASTM D2457
Haze	13	%	13	%	ASTM D1003

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.

Tris(nonylphenol)phosphite (TNPP) CAS# 26523-78-4 is not intentionally used by ExxonMobil in this product. Although this product is not routinely tested for its presence, based on product composition knowledge this substance is not expected to be present. However, the fact that this substance is not intentionally used by ExxonMobil in this product does not exclude that trace levels of this substance may be present as a result of the specific characteristics of the raw materials and/or of the manufacturing process.

Processing Statement

Film (1 mil / 25.4 micron) made from Exceed™ Stiff+ m 0820.ML on a 3.5 inch (90 mm) blown film line with a 2.5:1 blow-up ratio, a target melt temperature of 400°F (204°C), a 60 mil (1.5 mm) die gap at a rate of 15 lbs/hr/in die circumference.

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

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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.

For additional technical, sales and order assistance: Contact Us

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