Product Datasheet

ExxonMobil Signature Polymers

Exceed™ Tough m 4536.PA Cast

Metallocene Polyethylene

Product Description

Exceed™ Tough m 4536.PA is an ethylene 1-hexene copolymer. Films made from Exceed™ Tough m 4536.PA have high modulus and tensile strength. These properties together with excellent drawability make this a versatile polymer for mono layer and multi-layer cast film applications. TnPP is not intentionally added to Exceed™ Tough m 4536.PA.

General

Availability [1]	▪ Africa & Middle East	▪ Asia Pacific	▪ Europe
Additive	▪ Antiblock: No	▪ Slip: No	▪ Thermal Stabilizer: Yes
Applications	▪ Artificial grass ▪ Cast Film	▪ Diaper Backsheet ▪ Hygiene film	
Revision Date	▪ 06/03/2020		

Resin Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Density / Specific Gravity	0.936	g/cm³	0.936	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	4.5	g/10 min	4.5	g/10 min	ASTM D1238
Peak Melting Temperature	257	°F	125	°C	ExxonMobil Method

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Vicat Softening Temperature	244	°F	118	°C	ExxonMobil Method

Film Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Strength at Yield MD	2100	psi	15	MPa	ASTM D882
Tensile Strength at Yield TD	2200	psi	15	MPa	ASTM D882
Tensile Strength at Break MD	6200	psi	43	MPa	ASTM D882
Tensile Strength at Break TD	4800	psi	33	MPa	ASTM D882
Elongation at Break MD	580	%	580	%	ASTM D882
Elongation at Break TD	720	%	720	%	ASTM D882
Secant Modulus MD - 1% Secant	54000	psi	370	MPa	ASTM D882
Secant Modulus TD - 1% Secant	58000	psi	400	MPa	ASTM D882
Dart Drop Impact	< 60	g	< 60	g	ASTM D1709A
Elmendorf Tear Strength MD	30	g	30	g	ASTM D1922
Elmendorf Tear Strength TD	110	g	110	g	ASTM D1922
Puncture Force	6	lbf	28	N	ExxonMobil Method
Puncture Energy	9.9	in·lb	1.1	J	ExxonMobil Method

Optical Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Gloss (45°)	67		67		ASTM D2457
Haze	8.6	%	8.6	%	ASTM D1003

Legal Statement

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.

This product, including the product name, shall not be used or tested in any medical application without the prior written acknowledgement of ExxonMobil Chemical as to the intended use. For detailed Product Stewardship information, please contact Customer Service.

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

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

Product Datasheet

ExxonMobil

Exceed™ Tough m 4536.PA Cast
Metallocene Polyethylene

Processing Statement

Film (0.8 mil / 20 micron) made from Exceed™ Tough m 4536.PA on a 3.5 inch cast film line with a 5.5 inch melt curtain, 80°F (27°C) chill roll temperature at a 750 ft/min take-off speed and a melt temperature between 530-590°F (277-310°C).

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

©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