Product Datasheet

ExxonMobil Signature Polymers

Exceed™ Tough PP3684

Polypropylene Homopolymer

Product Description

Exceed™ Tough PP3684 is a homopolymer resin designed for spunbond nonwovens. The resin is particularly suited for excellent spinning of uniform, high quality fabrics and allows for creative innovations in high loft spunbond applications. Formulated for applications requiring low color and low gas fading discoloration. Produced with a catalyst system that does not include intentionally-added phthalate compounds.

General

Availability [1]	▪ Africa & Middle East ▪ Asia Pacific	▪ Europe ▪ North America	
Features	▪ Good Processability	▪ No Intentionally Added Phthalates	
Uses	▪ Personal Care	▪ Spunbond Nonwovens	▪ Textile Applications
Appearance	▪ Natural Color		
Form(s)	▪ Pellets		
Processing Method	▪ Filament Extrusion	▪ Spunbond Nonwovens	
Revision Date	▪ 11/13/2023		

Physical	Typical Value (English)		Typical Value (SI)		Test Based On
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	14	g/10 min	14	g/10 min	ASTM D1238
Density	0.900	g/cm³	0.900	g/cm³	ExxonMobil Method

Mechanical	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Strength at Yield					ASTM D638
2.0 in/min (51 mm/min)	5010	psi	34.5	MPa	
Elongation at Yield (2.0 in/min (51 mm/min))	9.4	%	9.4	%	ASTM D638
Flexural Modulus - 1% Secant (0.051 in/min (1.3 mm/min))	208000	psi	1430	MPa	ASTM D790A

Impact	Typical Value (English)		Typical Value (SI)		Test Based On
Notched Izod Impact (73°F (23°C))	0.44	ft·lb/in	23	J/m	ASTM D256A
Gardner Impact (73°F (23°C))	24.7	in·lb	2.79	J	ASTM D5420

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Peak Melting Temperature	322	°F	161	°C	ExxonMobil Method
Deflection Temperature Under Load (DTUL) at 264psi - Unannealed	131	°F	55.1	°C	ASTM D648B
Vicat Softening Temperature	310	°F	154	°C	ASTM D1525

Optical	Typical Value (English)		Typical Value (SI)		Test Based On
Haze	51.4	%	51.4	%	ASTM D1003

Legal Statement

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).

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

ExxonMobil

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For additional technical, sales and order assistance: Contact Us

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