Product Datasheet

ExxonMobil Signature Polymers

Enable™ 3305MQ

Performance Polymer

Product Description

Enable™ 3305 MQ resin is a medium density ethylene 1-hexene copolymer. Enable™ performance polymer resins offer an outstanding balance between processing and film properties, including tensile, impact and puncture. Easier processing and excellent properties lead to significant high pressure MDPE replacement in many applications, yet with superior drawdown and enhanced toughness. TnPP is not intentionally added to Enable™ 3305 MQ resin.

General

Availability [1]	▪ Africa & Middle East ▪ Asia Pacific	▪ Europe ▪ Latin America	▪ North America
Additive	▪ Antiblock: No ▪ Slip: No	▪ Processing Aid: No ▪ Thermal Stabilizer: Yes	
Applications	▪ Geomembrane		
Form(s)	▪ Pellets		
Revision Date	▪ 05/13/2021		

Resin Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Density / Specific Gravity	0.933	g/cm³	0.933	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	0.50	g/10 min	0.50	g/10 min	ASTM D1238
High Load Melt Index (190°C/21.6 kg)	24	g/10 min	24	g/10 min	ASTM D1238

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Deflection Temperature Under Load (DTUL) at 66psi - Unannealed	124	°F	51	°C	ASTM D648
Vicat Softening Temperature	244	°F	118	°C	ASTM D1525
Peak Melting Temperature	252	°F	122	°C	ExxonMobil Method

Molded Properties	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Strength at Yield [2]	2500	psi	17	MPa	ASTM D638
Tensile Strength at Break [2]	5500	psi	38	MPa	ASTM D638
Elongation at Yield [2]	10	%	10	%	ASTM D638
Elongation at Break [2]	790	%	790	%	ASTM D638
Flexural Modulus					ASTM D790
1% Secant	83000	psi	570	MPa	
Tangent [3]	110000	psi	790	MPa	
Environmental Stress-Crack Resistance					ASTM D1693B
10% Igepal, F50	> 1800	hr	> 1800	hr	
100% Igepal	> 1800	hr	> 1800	hr	
Stress Crack Resistance; Notched Constant Tensile Load Test [4]	> 1000	hr	> 1000	hr	ASTM D5397
Durometer Hardness (Shore D, 15 sec)	50		50		ASTM D2240

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.

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] Testing performed at 2 in/min on Type IV bars from plaque compression molded based on ASTM D4703

[3] type 1

[4] ExxonMobil has tested 30% NCTL (based on ASTM D5397) on compression molded plaques, both internally and at third party industry labs. All individual test specimens have surpassed 1000 hours. Product performance in fully formulated geomembrane sheets needs to be validated by the end user.

ExxonMobil

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For additional technical, sales and order assistance: www.exxonmobilchemical.com/ContactUs

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