Product Datasheet

ExxonMobil Signature Polymers

ExxonMobil™ PP7045E1

Polypropylene Impact Copolymer

Product Description

ExxonMobil PP7045E1 is a high crystallinity, medium copolymer resin with high melt flow rate and excellent processing attributes. It is designed for applications requiring long-term heat-aging resistance and excellent finished part appearance.

General

Availability [1]	▪ Latin America	▪ North America	
Features	▪ Good Colorability ▪ Good Processability	▪ High Stiffness ▪ Low Warpage	▪ Medium Impact Resistance ▪ Thermal Aging Resistant
Uses	▪ Appliances	▪ Automotive Applications	▪ Consumer Applications
Appearance	▪ Natural Color		
Form(s)	▪ Pellets		
Processing Method	▪ Compounding	▪ Injection Molding	
Revision Date	▪ 05/24/2023		

Physical	Typical Value (English)		Typical Value (SI)		Test Based On
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	35	g/10 min	35	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)	3670	psi	25.3	MPa	
Tensile Stress at Yield	3600	psi	24.8	MPa	ISO 527-2/50
Elongation at Yield (2.0 in/min (51 mm/min))	4.4	%	4.4	%	ASTM D638
Tensile Strain at Yield	4.1	%	4.1	%	ISO 527-2/50
Flexural Modulus - 1% Secant					
0.051 in/min (1.3 mm/min)	203000	psi	1400	MPa	ASTM D790A
0.51 in/min (13 mm/min)	232000	psi	1600	MPa	ASTM D790B
Flexural Modulus (0.079 in/min (2.0 mm/min))	197000	psi	1360	MPa	ISO 178

Impact	Typical Value (English)		Typical Value (SI)		Test Based On
Notched Izod Impact					ASTM D256A
0°F (-18°C)	0.80	ft·lb/in	43	J/m	
73°F (23°C)	1.4	ft·lb/in	75	J/m	
Notched Izod Impact Strength					ISO 180/1A
-40°F (-40°C)	2.3	ft·lb/in²	4.8	kJ/m²	
-4°F (-20°C)	2.5	ft·lb/in²	5.3	kJ/m²	
73°F (23°C)	4.4	ft·lb/in²	9.3	kJ/m²	
Charpy Notched Impact Strength					ISO 179/1eA
-22°F (-30°C)	2.1	ft·lb/in²	4.4	kJ/m²	
-4°F (-20°C)	2.1	ft·lb/in²	4.5	kJ/m²	
32°F (0°C)	2.4	ft·lb/in²	5.0	kJ/m²	
73°F (23°C)	3.7	ft·lb/in²	7.7	kJ/m²	
Gardner Impact					ASTM D5420
-20°F (-29°C), 0.125 in (3.18 mm), Geometry GC	169	in·lb	19.1	J	

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Heat Deflection Temperature (1.80 MPa)	131	°F	55.0	°C	ISO 75-2/A
Heat Deflection Temperature (0.45 MPa)	208	°F	98.0	°C	ISO 75-2/Bf
Deflection Temperature Under Load (DTUL) at 66psi - Unannealed	226	°F	108	°C	ASTM D648
DTUL (66 psi) - Annealed	248	°F	120	°C	ASTM D648

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

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Hardness	Typical Value (English)	Typical Value (SI)	Test Based On
Rockwell Hardness	91	91	ASTM D785

Legal Statement

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

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.

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: www.exxonmobilchemical.com/ContactUs

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