

Product Datasheet



ExxonMobil™ PP8864E1

Polypropylene Impact Copolymer

Product Description

ExxonMobil™ PP8864E1 is a medium flow very high impact copolymer resin specifically designed for injection molding applications requiring good processing characteristics.

General

Availability ¹	▪ Asia Pacific		
Features	▪ Balanced Stiffness/Toughness ▪ High Impact Resistance	▪ Medium Flow ▪ Nucleated	
Uses	▪ Appliance Components	▪ Automotive Applications	▪ Industrial Applications
Appearance	▪ Natural Color		
Form(s)	▪ Pellets		
Processing Method	▪ Compounding	▪ Injection Molding	
Revision Date	▪ 01/24/2024		

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Melt Mass-Flow Rate (MFR) (230°C/2.16 g)	14 g/10 min	14 g/10 min	ASTM D1238
Density	0.900 g/cm ³	0.900 g/cm ³	ExxonMobil Method

Mechanical	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield 2.0 in/min (51 mm/min)	2970 psi	20.5 MPa	ASTM D638
Tensile Stress at Yield	2930 psi	20.2 MPa	ISO 527-2
Elongation at Yield	5.5 %	5.5 %	ASTM D638
Tensile Strain at Yield	5.4 %	5.4 %	ISO 527-2
Flexural Modulus - 1% Secant 0.051 in/min (1.3 mm/min)	153000 psi	1050 MPa	ASTM D790A
0.51 in/min (13 mm/min)	174000 psi	1200 MPa	ASTM D790B
Flexural Modulus (0.079 in/min (2.0 mm/min))	161000 psi	1110 MPa	ISO 178

Impact	Typical Value (English)	Typical Value (SI)	Test Based On
Notched Izod Impact -20°F (-29°C)	1.3 ft-lb/in	68 J/m	ASTM D256A
0°F (-18°C) ²	1.8 ft-lb/in	96 J/m	ASTM D256
32°F (0°C)	3.0 ft-lb/in	160 J/m	ASTM D256A
73°F (23°C) ²	14 ft-lb/in	740 J/m	ASTM D256
Notched Izod Impact Strength -22°F (-30°C)	3.1 ft-lb/in ²	6.4 kJ/m ²	ISO 180
-4°F (-20°C)	3.6 ft-lb/in ²	7.7 kJ/m ²	
32°F (0°C)	5.9 ft-lb/in ²	12 kJ/m ²	
73°F (23°C)	24 ft-lb/in ²	51 kJ/m ²	
Charpy Notched Impact Strength -4°F (-20°C)	3.5 ft-lb/in ²	7.4 kJ/m ²	ISO 179/1eA
32°F (0°C)	4.6 ft-lb/in ²	9.7 kJ/m ²	
73°F (23°C)	29 ft-lb/in ²	62 kJ/m ²	

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Heat Deflection Temperature (1.80 MPa)	119 °F	48.4 °C	ISO 75-2/A
Heat Deflection Temperature (0.45 MPa)	182 °F	83.2 °C	ISO 75-2/B

Hardness	Typical Value (English)	Typical Value (SI)	Test Based On
Rockwell Hardness	64	64	ASTM D785

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**ExxonMobil™ PP8864E1**
Polypropylene Impact Copolymer**Legal Statement**

This product, including the product name, shall not be used or tested in any medical application without 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.

² Notch A

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