

ExxonMobil™ PP7032E3

Polypropylene Impact Copolymer

Product Description

An impact copolymer resin designed for consumer and industrial products requiring very high impact resistance.

General

Availability ¹	▪ Asia Pacific
Features	▪ Balanced Stiffness/Toughness ▪ High Stiffness ▪ Medium Flow ▪ Ultra High Impact Resistance
Uses	▪ Appliance Components ▪ Battery Cases ▪ Consumer Applications ▪ Industrial Applications ▪ Rigid Packaging ▪ Toys
Appearance	▪ Natural Color
Form(s)	▪ Pellets
Processing Method	▪ Injection Molding
Revision Date	▪ 08/01/2015

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	4.0 g/10 min	4.0 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)	3440 psi	23.7 MPa	ASTM D638
Tensile Stress at Yield	3340 psi	23.0 MPa	ISO 527-2/50
Elongation at Yield (2.0 in/min (51 mm/min))	6.0 %	6.0 %	ASTM D638
Tensile Strain at Yield	5.6 %	5.6 %	ISO 527-2/50
Tensile Modulus	173000 psi	1200 MPa	ISO 527-2/1
Flexural Modulus - 1% Secant 0.051 in/min (1.3 mm/min)	176000 psi	1210 MPa	ASTM D790A
0.51 in/min (13 mm/min)	188000 psi	1300 MPa	ASTM D790B
Flexural Modulus (0.079 in/min (2.0 mm/min))	165000 psi	1140 MPa	ISO 178

Impact	Typical Value (English)	Typical Value (SI)	Test Based On
Notched Izod Impact (73°F (23°C))	No Break	No Break	ASTM D256A
Notched Izod Impact Strength			ISO 180/1A
-40°F (-40°C)	4.3 ft·lb/in ²	9.0 kJ/m ²	
0°F (-18°C)	5.2 ft·lb/in ²	11 kJ/m ²	
73°F (23°C)	25 ft·lb/in ²	53 kJ/m ²	
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	3.2 ft·lb/in ²	6.8 kJ/m ²	
73°F (23°C)	27 ft·lb/in ²	57 kJ/m ²	

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Heat Deflection Temperature (1.80 MPa)	122 °F	50.2 °C	ISO 75-2/A
Heat Deflection Temperature (0.45 MPa)	180 °F	82.0 °C	ISO 75-2/Bf
Deflection Temperature Under Load (DTUL) at 66psi - Unannealed	195 °F	90.6 °C	ASTM D648
DTUL @ 66psi - Annealed	234 °F	112 °C	ASTM D648

Hardness	Typical Value (English)	Typical Value (SI)	Test Based On
Rockwell Hardness	84	84	ASTM D785