

ExxonMobil™ PP7684KNE1

Polypropylene Impact Copolymer

Product Description

A high crystallinity, high impact copolymer resin with medium melt flow rate and excellent processing attributes. It is designed to optimize cycle times by improving mold release of injection molded parts.

General

Features	- Antistatic - Balanced Stiffness/Toughness	- Fast Molding Cycle - Good Mold Release	- Medium Impact Resistance - Nucleated
Uses	- Appliances - Consumer Applications	- Crates - Industrial Applications	- Packaging - Tool/Tote Box
Appearance	Natural Color		
Form(s)	Pellets		
Processing Method	Compounding	Injection Molding	

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	19 g/10 min	19 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)	3450 psi	23.8 MPa	ASTM D638
Tensile Stress at Yield	3350 psi	23.1 MPa	ISO 527-2/50
Elongation at Yield (2.0 in/min (51 mm/min))	4.5 %	4.5 %	ASTM D638
Tensile Strain at Yield	4.2 %	4.2 %	ISO 527-2/50
Flexural Modulus - 1% Secant 0.051 in/min (1.3 mm/min)	185000 psi	1280 MPa	ASTM D790A
0.51 in/min (13 mm/min)	214000 psi	1480 MPa	ASTM D790B
Flexural Modulus (0.079 in/min (2.0 mm/min))	185000 psi	1280 MPa	ISO 178

Impact	Typical Value (English)	Typical Value (SI)	Test Based On
Notched Izod Impact (73°F (23°C))	3.0 ft-lb/in	160 J/m	ASTM D256A
Notched Izod Impact Strength			ISO 180/1A
-40°F (-40°C)	3.4 ft-lb/in ²	7.2 kJ/m ²	
-4°F (-20°C)	3.7 ft-lb/in ²	7.7 kJ/m ²	
73°F (23°C)	6.8 ft-lb/in ²	14 kJ/m ²	
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	3.5 ft-lb/in ²	7.3 kJ/m ²	
-4°F (-20°C)	3.6 ft-lb/in ²	7.5 kJ/m ²	
32°F (0°C)	4.3 ft-lb/in ²	9.0 kJ/m ²	
73°F (23°C)	6.5 ft-lb/in ²	14 kJ/m ²	
Gardner Impact -20°F (-29°C), 0.125 in (3.18 mm), Geometry GC	197 in-lb	22.3 J	ASTM D5420

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Heat Deflection Temperature (1.80 MPa)	122 °F	50.1 °C	ISO 75-2/A
Heat Deflection Temperature (0.45 MPa)	191 °F	88.5 °C	ISO 75-2/Bf
Deflection Temperature Under Load (DTUL) at 66psi - Unannealed	221 °F	105 °C	ASTM D648

