ExxonMobil™ PP7684KN

Polypropylene Impact Copolymer

Product Description

A high crystallinity, high impact copolymer resin with medium melt flow rate and excellent processing attributes. It is designed for injection molded small and large appliance parts.

General

Features	▪ Antistatic ▪ Balanced Stiffness/Toughness	▪ Fast Molding Cycle ▪ 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)	20	g/10 min	20	g/10 min	ASTM D1238
Density	0.9	g/cm³	0.9	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)	3540	psi	24.4	MPa	
Tensile Stress at Yield	3520	psi	24.3	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	3.4	%	3.4	%	ISO 527-2/50
Tensile Modulus	191000	psi	1320	MPa	ISO 527-2/1
Flexural Modulus - 1% Secant					
0.051 in/min (1.3 mm/min)	187000	psi	1290	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))	181000	psi	1250	MPa	ISO 178

Impact	Typical Value (English)		Typical Value (SI)		Test Based On
Notched Izod Impact (73°F (23°C))	2.7	ft·lb/in	150	J/m	ASTM D256A
Notched Izod Impact Strength					ISO 180/1A
-40°F (-40°C)	1.9	ft·lb/in²	4.0	kJ/m²	
0°F (-18°C)	2.2	ft·lb/in²	4.6	kJ/m²	
73°F (23°C)	4.0	ft·lb/in²	8.4	kJ/m²	
Charpy Notched Impact Strength					ISO 179/1eA
-22°F (-30°C)	1.9	ft·lb/in²	3.9	kJ/m²	
-4°F (-20°C)	2.3	ft·lb/in²	4.8	kJ/m²	
32°F (0°C)	3.1	ft·lb/in²	6.6	kJ/m²	
73°F (23°C)	4.8	ft·lb/in²	10	kJ/m²	
Gardner Impact					ASTM D5420
-20°F (-29°C), 0.125 in (3.18 mm), Geometry GC	201	in·lb	22.7	J	

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Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Heat Deflection Temperature (1.80 MPa)	125	°F	51.5	°C	ISO 75-2/A
Heat Deflection Temperature (0.45 MPa)	199	°F	93.0	°C	ISO 75-2/Bf
Deflection Temperature Under Load (DTUL) at 66psi - Unannealed	221	°F	105	°C	ASTM D648