

Achieve™ Advanced PP7123KNE1

Polypropylene Impact Copolymer

Product Description

A medium impact copolymer resin designed for appliance applications requiring high gloss and good stiffness.

General

Features	- Good Processability - High Gloss	- High Stiffness - Medium Flow	- Medium Impact Resistance - Nucleated
Uses	Appliance Components	Appliances	Consumer Applications
Appearance	Natural Color		
Form(s)	Pellets		
Processing Method	Injection Molding		

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	11 g/10 min	11 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			ASTM D638
2.0 in/min (51 mm/min)	4740 psi	32.7 MPa	
Tensile Stress at Yield (73°F (23°C))	4470 psi	30.8 MPa	ISO 527-2/50
Elongation at Yield (2.0 in/min (51 mm/min))	6.4 %	6.4 %	ASTM D638
Tensile Strain at Yield	5.8 %	5.8 %	ISO 527-2/50
Flexural Modulus - 1% Secant			
0.051 in/min (1.3 mm/min)	228000 psi	1570 MPa	ASTM D790A
0.51 in/min (13 mm/min)	260000 psi	1790 MPa	ASTM D790B
Flexural Modulus (0.079 in/min (2.0 mm/min))	244000 psi	1680 MPa	ISO 178

Impact	Typical Value (English)	Typical Value (SI)	Test Based On
Notched Izod Impact			ASTM D256A
0°F (-18°C)	0.50 ft-lb/in	27 J/m	
73°F (23°C)	1.6 ft-lb/in	85 J/m	
Notched Izod Impact Strength			ISO 180/1A
-22°F (-30°C)	1.2 ft-lb/in ²	2.5 kJ/m ²	
-4°F (-20°C)	1.3 ft-lb/in ²	2.7 kJ/m ²	
32°F (0°C)	1.8 ft-lb/in ²	3.8 kJ/m ²	
73°F (23°C)	3.3 ft-lb/in ²	6.9 kJ/m ²	
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	1.1 ft-lb/in ²	2.4 kJ/m ²	
-4°F (-20°C)	1.2 ft-lb/in ²	2.5 kJ/m ²	
32°F (0°C)	1.8 ft-lb/in ²	3.7 kJ/m ²	
73°F (23°C)	3.2 ft-lb/in ²	6.8 kJ/m ²	

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Heat Deflection Temperature (1.80 MPa)	129 °F	54.0 °C	ISO 75-2/A
Heat Deflection Temperature (0.45 MPa)	216 °F	102 °C	ISO 75-2/Bf
Deflection Temperature Under Load (DTUL) at 66psi - Unannealed	241 °F	116 °C	ASTM D648
DTUL @ 66psi - Annealed	255 °F	124 °C	ASTM D648

Optical	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (60°)	89	89	ASTM D523



Achieve™ Advanced PP7123KNE1
Polypropylene Impact Copolymer

Hardness	Typical Value (English)	Typical Value (SI)	Test Based On
Rockwell Hardness	96	96	ASTM D785

