

ExxonMobil™ AP03B

Polypropylene Impact Copolymer

Product Description

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

General

Availability ¹	▪ Asia Pacific
Features	<ul style="list-style-type: none"> ▪ Fast Molding Cycle ▪ Good Processability ▪ High Flow ▪ High Stiffness ▪ Highly Crystalline ▪ Medium Impact Resistance
Uses	<ul style="list-style-type: none"> ▪ Appliance Components ▪ Automotive Applications ▪ Automotive Interior Parts ▪ Consumer Applications ▪ Industrial Applications
Appearance	▪ Natural Color
Form(s)	▪ Pellets
Processing Method	▪ Injection Molding
Revision Date	▪ 03/01/2010

Physical	Typical Value (English)	Typical Value (SI)	Test Based On
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	30 g/10 min	30 g/10 min	ASTM D1238
Density	0.9 g/cm ³	0.9 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)	3860 psi	26.6 MPa	ASTM D638
Tensile Stress at Yield	3640 psi	25.1 MPa	ISO 527-2/50
Elongation at Yield (2.0 in/min (51 mm/min))	5.0 %	5.0 %	ASTM D638
Tensile Strain at Yield	4.9 %	4.9 %	ISO 527-2/50
Tensile Modulus	209000 psi	1440 MPa	ISO 527-2/1
Flexural Modulus - 1% Secant 0.051 in/min (1.3 mm/min)	190000 psi	1310 MPa	ASTM D790A
0.51 in/min (13 mm/min)	217000 psi	1500 MPa	ASTM D790B
Flexural Modulus (0.079 in/min (2.0 mm/min))	183000 psi	1260 MPa	ISO 178

Impact	Typical Value (English)	Typical Value (SI)	Test Based On
Notched Izod Impact 0°F (-18°C)	0.64 ft-lb/in	34 J/m	ASTM D256A
73°F (23°C)	1.3 ft-lb/in	72 J/m	
Notched Izod Impact Strength -40°F (-40°C)	1.4 ft-lb/in ²	2.9 kJ/m ²	ISO 180/1A
0°F (-18°C)	1.9 ft-lb/in ²	4.1 kJ/m ²	
73°F (23°C)	3.8 ft-lb/in ²	7.9 kJ/m ²	
Charpy Notched Impact Strength -22°F (-30°C)	1.6 ft-lb/in ²	3.4 kJ/m ²	ISO 179/1eA
-4°F (-20°C)	1.8 ft-lb/in ²	3.8 kJ/m ²	
32°F (0°C)	2.0 ft-lb/in ²	4.2 kJ/m ²	
73°F (23°C)	3.6 ft-lb/in ²	7.6 kJ/m ²	
Gardner Impact -20°F (-29°C), 0.125 in (3.18 mm), Geometry GC	153 in-lb	17.3 J	ASTM D5420

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Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Heat Deflection Temperature (1.80 MPa)	130 °F	54.6 °C	ISO 75-2/A
Heat Deflection Temperature (0.45 MPa)	200 °F	93.5 °C	ISO 75-2/Bf
Deflection Temperature Under Load (DTUL) at 66psi - Unannealed	221 °F	105 °C	ASTM D648
DTUL @ 66psi - Annealed	246 °F	119 °C	ASTM D648

Hardness	Typical Value (English)	Typical Value (SI)	Test Based On
Rockwell Hardness	95	95	ASTM D785

Legal Statement

This product, including the product name, shall not be used or tested in any medical application without the prior written acknowledgement of ExxonMobil Chemical as to the intended use.

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.

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