

ExxonMobil™ AP3N

Polypropylene Impact Copolymer

Product Description

A medium impact copolymer resin designed for appliance applications requiring good stiffness and fast cycle time.

General

Availability ¹	▪ Asia Pacific		
Features	▪ Fast Molding Cycle ▪ 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		
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)	10 g/10 min	10 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)	4180 psi	28.8 MPa	ASTM D638
Tensile Stress at Yield	4090 psi	28.2 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	5.0 %	5.0 %	ISO 527-2/50
Tensile Modulus	245000 psi	1690 MPa	ISO 527-2/1
Flexural Modulus - 1% Secant 0.051 in/min (1.3 mm/min)	215000 psi	1480 MPa	ASTM D790A
0.51 in/min (13 mm/min)	248000 psi	1710 MPa	ASTM D790B
Flexural Modulus (0.079 in/min (2.0 mm/min))	219000 psi	1510 MPa	ISO 178

Impact	Typical Value (English)	Typical Value (SI)	Test Based On
Notched Izod Impact (73°F (23°C))	1.8 ft-lb/in	96 J/m	ASTM D256A
Notched Izod Impact Strength			ISO 180/1A
-40°F (-40°C)	1.8 ft-lb/in ²	3.8 kJ/m ²	
0°F (-18°C)	2.2 ft-lb/in ²	4.5 kJ/m ²	
73°F (23°C)	3.9 ft-lb/in ²	8.3 kJ/m ²	
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	1.7 ft-lb/in ²	3.6 kJ/m ²	
-4°F (-20°C)	1.9 ft-lb/in ²	4.0 kJ/m ²	
32°F (0°C)	2.2 ft-lb/in ²	4.5 kJ/m ²	
73°F (23°C)	4.1 ft-lb/in ²	8.6 kJ/m ²	
Gardner Impact			ASTM D5420
-20°F (-29°C), 0.125 in (3.18 mm), Geometry GC	159 in-lb	18.0 J	



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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)	212 °F	100 °C	ISO 75-2/Bf
Deflection Temperature Under Load (DTUL) at 66psi - Unannealed	237 °F	114 °C	ASTM D648
DTUL @ 66psi - Annealed	253 °F	123 °C	ASTM D648

Hardness	Typical Value (English)	Typical Value (SI)	Test Based On
Rockwell Hardness	98	98	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.

For additional technical, sales and order assistance: www.exxonmobilchemical.com/ContactUs

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