Product Datasheet

ExxonMobil Signature Polymers

Exceed™ 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	▪ 03/11/2019		

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	0.900	g/cm³	0.900	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)	4150	psi	28.6	MPa	
Tensile Stress at Yield	4080	psi	28.1	MPa	ISO 527-2/50
Elongation at Yield (2.0 in/min (51 mm/min))	4.6	%	4.6	%	ASTM D638
Tensile Strain at Yield	4.7	%	4.7	%	ISO 527-2/50
Flexural Modulus - 1% Secant					
0.051 in/min (1.3 mm/min)	229000	psi	1580	MPa	ASTM D790A
0.51 in/min (13 mm/min)	259000	psi	1780	MPa	ASTM D790B
Flexural Modulus (0.079 in/min (2.0 mm/min))	228000	psi	1570	MPa	ISO 178

Impact	Typical Value (English)		Typical Value (SI)		Test Based On
Notched Izod Impact					ASTM D256A
0°F (-18°C)	0.91	ft·lb/in	49	J/m	
73°F (23°C)	2.1	ft·lb/in	110	J/m	
Notched Izod Impact Strength					ISO 180/1A
-40°F (-40°C)	1.8	ft·lb/in²	3.8	kJ/m²	
-4°F (-20°C)	2.2	ft·lb/in²	4.6	kJ/m²	
73°F (23°C)	4.5	ft·lb/in²	9.4	kJ/m²	
Charpy Notched Impact Strength					ISO 179/1eA
-22°F (-30°C)	2.1	ft·lb/in²	4.4	kJ/m²	
-4°F (-20°C)	2.2	ft·lb/in²	4.6	kJ/m²	
32°F (0°C)	3.2	ft·lb/in²	6.7	kJ/m²	
73°F (23°C)	6.2	ft·lb/in²	13	kJ/m²	
Gardner Impact					ASTM D5420
-20°F (-29°C), 0.125 in (3.18 mm), Geometry GC	143	in·lb	16.2	J	

Manufacturer website: https://www.exxonmobilchemical.com/en/products/polyethylene

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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	ExxonMobil Method
Heat Deflection Temperature (0.45 MPa) Flatwise	213	°F	101	°C	ExxonMobil Method
Deflection Temperature Under Load (DTUL) at 66psi - Unannealed	232	°F	111	°C	ExxonMobil Method
DTUL (66 psi) - Annealed	250	°F	121	°C	ExxonMobil Method

Hardness	Typical Value (English)	Typical Value (SI)	Test Based On
Rockwell Hardness	99	99	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. For detailed Product Stewardship information, please contact Customer Service.

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: Contact Us

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