

Product Datasheet
ExxonMobil™ AXO3BE3
Polypropylene Impact Copolymer



Product Description

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

General

| | | | |
|---------------------------|---|--|--|
| Availability ¹ | ▪ North America | | |
| Features | ▪ Fast Molding Cycle ▪ Good Flow | ▪ Good Stiffness ▪ Impact Modified | ▪ Nucleated |
| Uses | ▪ Appliances ▪ Automotive Applications | ▪ Automotive Interior Parts ▪ Compounding | ▪ Consumer Applications ▪ Industrial Applications |
| Appearance | ▪ Natural Color | | |
| Form(s) | ▪ Pellets | | |
| Processing Method | ▪ Injection Molding | | |
| Revision Date | ▪ 07/01/2017 | | |

| Physical | Typical Value (English) | Typical Value (SI) | Test Based On |
|---|-------------------------|-------------------------|-------------------|
| Melt Mass-Flow Rate (MFR) (230°C/2.16 kg) | 35 g/10 min | 35 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 2.0 in/min (51 mm/min) | 3670 psi | 25.3 MPa | ASTM D638 |
| Tensile Stress at Yield | 3600 psi | 24.8 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 | 4.1 % | 4.1 % | ISO 527-2/50 |
| Flexural Modulus - 1% Secant 0.051 in/min (1.3 mm/min) | 203000 psi | 1400 MPa | ASTM D790A |
| 0.51 in/min (13 mm/min) | 232000 psi | 1600 MPa | ASTM D790B |
| Flexural Modulus (0.079 in/min (2.0 mm/min)) | 197000 psi | 1360 MPa | ISO 178 |

| Impact | Typical Value (English) | Typical Value (SI) | Test Based On |
|---|---------------------------|-----------------------|---------------|
| Notched Izod Impact 0°F (-18°C) | 0.80 ft-lb/in | 43 J/m | ASTM D256A |
| 73°F (23°C) | 1.4 ft-lb/in | 75 J/m | |
| Notched Izod Impact Strength -40°F (-40°C) | 2.3 ft-lb/in ² | 4.8 kJ/m ² | ISO 180/1A |
| -4°F (-20°C) | 2.5 ft-lb/in ² | 5.3 kJ/m ² | |
| 73°F (23°C) | 4.4 ft-lb/in ² | 9.3 kJ/m ² | |
| Charpy Notched Impact Strength -22°F (-30°C) | 2.1 ft-lb/in ² | 4.4 kJ/m ² | ISO 179/1eA |
| -4°F (-20°C) | 2.1 ft-lb/in ² | 4.5 kJ/m ² | |
| 32°F (0°C) | 2.4 ft-lb/in ² | 5.0 kJ/m ² | |
| 73°F (23°C) | 3.7 ft-lb/in ² | 7.7 kJ/m ² | |
| Gardner Impact -20°F (-29°C), 0.125 in (3.18 mm), Geometry GC | 169 in-lb | 19.1 J | ASTM D5420 |

| Thermal | Typical Value (English) | Typical Value (SI) | Test Based On |
|---|-------------------------|--------------------|---------------|
| Heat Deflection Temperature (1.80 MPa) | 131 °F | 55.0 °C | ISO 75-2/A |
| Heat Deflection Temperature (0.45 MPa) | 208 °F | 98.0 °C | ISO 75-2/Bf |
| Deflection Temperature Under Load (DTUL) at 66psi - Unannealed | 226 °F | 108 °C | ASTM D648 |
| DTUL (66 psi) - Annealed | 248 °F | 120 °C | ASTM D648 |

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| Hardness | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------------|-------------------------|--------------------|---------------|
| Rockwell Hardness | 91 | 91 | ASTM D785 |

Legal Statement

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

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.

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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