

# Exceed™ AP03B

(Legacy name: ExxonMobil™ AP03B)

## Polypropylene Impact Copolymer

### Product Description

Exceed™ AP03B is 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 <sup>1</sup> | <ul style="list-style-type: none"> <li>Africa &amp; Middle East</li> <li>Asia Pacific</li> </ul>        | <ul style="list-style-type: none"> <li>Europe</li> <li>Latin America</li> </ul>                            | <ul style="list-style-type: none"> <li>North America</li> </ul>  |
| Features                  | <ul style="list-style-type: none"> <li>Fast Molding Cycle</li> <li>Good Processability</li> </ul>       | <ul style="list-style-type: none"> <li>High Flow</li> <li>High Stiffness</li> </ul>                        | <ul style="list-style-type: none"> <li>Highly Crystalline</li> <li>Medium Impact Resistance</li> </ul> |
| Uses                      | <ul style="list-style-type: none"> <li>Appliance Components</li> <li>Automotive Applications</li> </ul> | <ul style="list-style-type: none"> <li>Automotive Interior Parts</li> <li>Consumer Applications</li> </ul> | <ul style="list-style-type: none"> <li>Industrial Applications</li> </ul>                              |
| Appearance                | <ul style="list-style-type: none"> <li>Natural Color</li> </ul>   |  |  |
| Form(s)                   | <ul style="list-style-type: none"> <li>Pellets</li> </ul>   |  |  |
| Processing Method         | <ul style="list-style-type: none"> <li>Injection Molding</li> </ul>                                     |  |  |
| Revision Date             | <ul style="list-style-type: none"> <li>09/25/2023</li> </ul>  |  |  |

### 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                                   | 0.900 g/cm <sup>3</sup> | 0.900 g/cm <sup>3</sup> | 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)                       | 3740 psi                | 25.8 MPa           |               |
| Tensile Stress at Yield                      | 3730 psi                | 25.7 MPa           | ISO 527-2/50  |
| Elongation at Yield (2.0 in/min (51 mm/min)) | 5.1 %                   | 5.1 %              | ASTM D638     |
| Tensile Strain at Yield                      | 4.8 %                   | 4.8 %              | ISO 527-2/50  |
| Flexural Modulus - 1% Secant                 |                         |                    |               |
| 0.051 in/min (1.3 mm/min)                    | 200000 psi              | 1380 MPa           | ASTM D790A    |
| 0.51 in/min (13 mm/min)                      | 229000 psi              | 1580 MPa           | ASTM D790B    |
| Flexural Modulus (0.079 in/min (2.0 mm/min)) | 200000 psi              | 1380 MPa           | ISO 178       |

### Impact

|                                | Typical Value (English)   | Typical Value (SI)    | Test Based On |
|--------------------------------|---------------------------|-----------------------|---------------|
| Notched Izod Impact            |                           |                       | ASTM D256A    |
| 0°F (-18°C)                    | 0.70 ft-lb/in             | 37 J/m                |               |
| 73°F (23°C)                    | 1.6 ft-lb/in              | 85 J/m                |               |
| Notched Izod Impact Strength   |                           |                       | ISO 180/1A    |
| -40°F (-40°C)                  | 2.5 ft-lb/in <sup>2</sup> | 5.2 kJ/m <sup>2</sup> |               |
| -4°F (-20°C)                   | 2.7 ft-lb/in <sup>2</sup> | 5.7 kJ/m <sup>2</sup> |               |
| 73°F (23°C)                    | 4.8 ft-lb/in <sup>2</sup> | 10 kJ/m <sup>2</sup>  |               |
| Charpy Notched Impact Strength |                           |                       | ISO 179/1eA   |
| -22°F (-30°C)                  | 1.4 ft-lb/in <sup>2</sup> | 2.9 kJ/m <sup>2</sup> |               |
| -4°F (-20°C)                   | 2.0 ft-lb/in <sup>2</sup> | 4.3 kJ/m <sup>2</sup> |               |
| 32°F (0°C)                     | 2.5 ft-lb/in <sup>2</sup> | 5.2 kJ/m <sup>2</sup> |               |
| 73°F (23°C)                    | 4.0 ft-lb/in <sup>2</sup> | 8.4 kJ/m <sup>2</sup> |               |

### 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)                         | 203 °F                  | 95.0 °C            | ISO 75-2/Bf   |
| Deflection Temperature Under Load (DTUL) at 66psi - Unannealed | 223 °F                  | 106 °C             | ASTM D648     |
| DTUL (66 psi) - Annealed                                       | 243 °F                  | 117 °C             | ASTM D648     |

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### Polypropylene Impact Copolymer

| Hardness          | Typical Value (English) | Typical Value (SI) | Test Based On |
|-------------------|-------------------------|--------------------|---------------|
| Rockwell Hardness | 94                      | 94                 | 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.

<sup>1</sup> 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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