TRINSEO™

# MAGNUM™ A460
## ABS Resin

## Overview

MAGNUM™ A460 is an ABS resin that can be used for both extrusion and injection molding applications. This grade combines high impact and medium-high heat resistance. The mass (continuous polymerization process) ABS technology ensures a stable light base color ideal for self-coloring, low gel level and high purity that makes MAGNUM™ A460 a suitable candidate for extrusion and alloy compounding applications

Applications:

- High end extrusion applications
- ABS feedstock for PC/ABS compound
- General injection molding applications

Complies with

- U.S. FDA 21 CFR 181.32(a)(3)(i)
- Consult the regulation for complete details

| Physical | Nominal Value | (English) | Nominal Value | (SI) | Test Method |
|---|---|---|---|---|---|
| Density | 1.05 | g/cm³ | 1.05 | g/cm³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg) | 5.0 | g/10 min | 5.0 | g/10 min | ISO 1133 |
| Molding Shrinkage | 4.0E-3 to 7.0E-3 | in/in | 0.40 to 0.70 | % | ISO 294-4 |
| **Mechanical** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Tensile Strength | | | | | |
| Yield [1] | 6240 | psi | 43.0 | MPa | ASTM D638 |
| Yield | 6240 | psi | 43.0 | MPa | ISO 527-2/50 |
| Break [1] | 4930 | psi | 34.0 | MPa | ASTM D638 |
| Break | 4640 | psi | 32.0 | MPa | ISO 527-2/50 |
| Tensile Elongation | | | | | |
| Break [1] | 15 | % | 15 | % | ASTM D638 |
| Break | 15 | % | 15 | % | ISO 527-2/50 |
| Flexural Modulus [2] | 348000 | psi | 2400 | MPa | ASTM D790 |
| Flexural Strength [2] | 10900 | psi | 75.0 | MPa | ASTM D790 |
| **Impact** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Charpy Notched Impact Strength (73°F (23°C)) | 12 | ft·lb/in² | 25 | kJ/m² | ISO 179/1eA |
| Notched Izod Impact (73°F (23°C)) | 7.5 | ft·lb/in | 400 | J/m | ASTM D256 |
| **Thermal** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Deflection Temperature Under Load | | | | | ASTM D648 |
| 264 psi (1.8 MPa), Annealed | 208 | °F | 98.0 | °C | |
| Vicat Softening Temperature | 216 | °F | 102 | °C | ISO 306/B50 |
| **Flammability** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Flame Rating [3] | | | | | UL 94 |
| 0.06 in (1.5 mm) | HB | | HB | | |
| 0.12 in (3.0 mm) | HB | | HB | | |

**Additional Information**

Mass balance versions (bio-based (BIO) or chemically recycled (CR)) of this product are chemically and physically indistinguishable to the standard fossil grade. This technical data sheet applies to all versions. Letters of sameness are available upon request.

| Injection | Nominal Value | (English) | Nominal Value | (SI) |
|---|---|---|---|---|
| Drying Temperature | 176 to 194 | °F | 80 to 90 | °C |
| Drying Time | 2.0 to 4.0 | hr | 2.0 to 4.0 | hr |

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