

# MAGNUM™ A533UT

## ABS Resin

### Overview

MAGNUM™ A533UT is a ABS resins with differentiated quality of low gel. It has an ultra low particulate content, which results in a superb surface finish that will enable our customers to produce products with excellent aesthetics. It has medium impact and heat performance, and is designed for extrusion applications.

Applications:

- High end extrusion applications
- Extrusion films

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/cm <sup>3</sup>    | 1.05 g/cm <sup>3</sup> | ISO 1183     |
| Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)    | 11 g/10 min               | 11 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 <sup>1</sup>                           | 5660 psi                  | 39.0 MPa               | ASTM D638    |
| Yield  | 5370 psi                  | 37.0 MPa               | ISO 527-2/50 |
| Break <sup>1</sup>                           | 4500 psi                  | 31.0 MPa               | ASTM D638    |
| Break  | 4350 psi                  | 30.0 MPa               | ISO 527-2/50 |
| Tensile Elongation                           |                           |                        |              |
| Break <sup>1</sup>                           | 20 %                      | 20 %                   | ASTM D638    |
| Break  | 50 %                      | 50 %                   | ISO 527-2/50 |
| Flexural Modulus <sup>2</sup>                | 297000 psi                | 2050 MPa               | ASTM D790    |
| Flexural Strength <sup>2</sup>               | 9280 psi                  | 64.0 MPa               | ASTM D790    |
| Impact                                       | Nominal Value (English)   | Nominal Value (SI)     | Test Method  |
| Charpy Notched Impact Strength (73°F (23°C)) | 6.7 ft·lb/in <sup>2</sup> | 14 kJ/m <sup>2</sup>   | ISO 179/1eA  |
| Notched Izod Impact (73°F (23°C))            | 3.7 ft·lb/in              | 200 J/m                | ASTM D256    |
| Thermal                                      | Nominal Value (English)   | Nominal Value (SI)     | Test Method  |
| Deflection Temperature Under Load            |                           |                        |              |
| 264 psi (1.8 MPa), Annealed                  | 210 °F                    | 99.0 °C                | ASTM D648    |
| Vicat Softening Temperature                  | 214 °F                    | 101 °C                 | ISO 306/B50  |

### 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      |