



## Ultradur® B 6550 LN FC

BASF Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

### General Information

#### Product Description

Ultradur B 6550 LN FC is a high viscosity PBT extrusion grade approved for food contact.

Typical applications include semi-finished products, profile and hollow rods.

#### General

|                           |                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------|
| Material Status           | • Commercial: Active                                                                         |
| Availability              | • North America                                                                              |
| Features                  | • Food Contact Acceptable • High Viscosity                                                   |
| Uses                      | • Profiles • Rods                                                                            |
| Agency Ratings            | • EC 1907/2006 (REACH) • EU 10/2011<br>• EC 2023/2006 • FDA Food Contact, Unspecified Rating |
| RoHS Compliance           | • RoHS Compliant                                                                             |
| Automotive Specifications | • FMVSS 302                                                                                  |
| Forms                     | • Pellets                                                                                    |
| Processing Method         | • Extrusion • Profile Extrusion                                                              |

### ASTM & ISO Properties <sup>1</sup>

| Physical                                         | Nominal Value | Unit                   | Test Method |
|--------------------------------------------------|---------------|------------------------|-------------|
| Density                                          | 1.30          | g/cm <sup>3</sup>      | ISO 1183    |
| Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)      | 9.50          | cm <sup>3</sup> /10min | ISO 1133    |
| Molding Shrinkage                                |               |                        | ISO 294-4   |
| Across Flow                                      | 2.2           | %                      |             |
| Flow                                             | 1.9           | %                      |             |
| Water Absorption (Saturation, 73°F)              | 0.40          | %                      | ISO 62      |
| Water Absorption (Equilibrium, 73°F, 50% RH)     | 0.25          | %                      | ISO 62      |
| Viscosity Number <sup>2</sup>                    | 160           | cm <sup>3</sup> /g     | ISO 307     |
| Mechanical                                       | Nominal Value | Unit                   | Test Method |
| Tensile Modulus (73°F)                           | 377000        | psi                    | ISO 527-2   |
| Tensile Stress (Yield, 73°F)                     | 8120          | psi                    | ISO 527-2   |
| Tensile Strain (Yield, 73°F)                     | 3.5           | %                      | ISO 527-2   |
| Nominal Tensile Strain at Break (73°F)           | > 50          | %                      | ISO 527-2   |
| Flexural Modulus (73°F)                          | 294000        | psi                    | ISO 178     |
| Flexural Stress (73°F)                           | 11000         | psi                    | ISO 178     |
| Impact                                           | Nominal Value | Unit                   | Test Method |
| Charpy Notched Impact Strength                   |               |                        | ISO 179     |
| -22°F                                            | 2.5           | ft-lb/in <sup>2</sup>  |             |
| 73°F                                             | 2.5           | ft-lb/in <sup>2</sup>  |             |
| Charpy Unnotched Impact Strength                 |               |                        | ISO 179     |
| -22°F                                            | 100           | ft-lb/in <sup>2</sup>  |             |
| 73°F                                             | No Break      |                        |             |
| Thermal                                          | Nominal Value | Unit                   | Test Method |
| Heat Deflection Temperature (66 psi, Unannealed) | 275           | °F                     | ISO 75-2/B  |

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| Thermal                                           | Nominal Value    | Unit     | Test Method |
|---------------------------------------------------|------------------|----------|-------------|
| Heat Deflection Temperature (264 psi, Unannealed) | 122              | °F       | ISO 75-2/A  |
| Melting Temperature                               | 433              | °F       | ISO 11357-3 |
| CLTE - Flow (73 to 176°F)                         | 5.0E-5 to 8.3E-5 | in/in/°F | ISO 11359-2 |
| Electrical                                        | Nominal Value    | Unit     | Test Method |
| Surface Resistivity                               | 1.0E+13          | ohms     | IEC 60093   |
| Volume Resistivity                                | 1.0E+16          | ohms·cm  | IEC 60093   |
| Relative Permittivity                             |                  |          | IEC 60250   |
| 100 Hz                                            | 3.40             |          |             |
| 1 MHz                                             | 3.20             |          |             |
| Dissipation Factor                                |                  |          | IEC 60250   |
| 100 Hz                                            | 1.9E-3           |          |             |
| 1 MHz                                             | 0.022            |          |             |
| Comparative Tracking Index (Solution A)           | 475              | V        | IEC 60112   |

### Processing Information

| Extrusion              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 212 to 248    | °F   |
| Drying Time            | 4.0           | hr   |
| Suggested Max Moisture | 0.040         | %    |
| Cylinder Zone 1 Temp.  | 482           | °F   |
| Cylinder Zone 3 Temp.  | 464           | °F   |
| Cylinder Zone 5 Temp.  | 446           | °F   |
| Adapter Temperature    | 437           | °F   |
| Melt Temperature       | 446 to 554    | °F   |
| Die Temperature        | 419           | °F   |
| Screw L/D Ratio        | 20.0:1.0      |      |

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> solution 0,005 g/ml Phenole/1,2 Dichlorbenzol 1:1