

## Technical Information



# CALIBRE™ 300-3

## Polycarbonate Resin

### Overview

CALIBRE™ 300-3 polycarbonate resins offer exceptional impact resistance, heat distortion resistance and optical clarity as well as high melt strength for various extrusion processes. CALIBRE 300-3 contains no mold release or UV stabilizer and is available in natural transparent colour only.

Govt. and Industry Standards:

- Underwriters Laboratory, Inc. (UL)

Applications:

- Blending,
- Compounding
- Sheet, film and profile extrusion

| Physical                                  | Nominal Value (English)   | Nominal Value (SI)     | Test Method             |
|-------------------------------------------|---------------------------|------------------------|-------------------------|
| Density                                   | 1.20 g/cm <sup>3</sup>    | 1.20 g/cm <sup>3</sup> | ASTM D792<br>ISO 1183/B |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)  | 3.0 g/10 min              | 3.0 g/10 min           | ASTM D1238<br>ISO 1133  |
| Water Absorption                          |                           |                        | ISO 62                  |
| Saturation, 73°F (23°C)                   | 0.32 %                    | 0.32 %                 |                         |
| Equilibrium, 73°F (23°C), 50% RH          | 0.12 %                    | 0.12 %                 |                         |
| Mechanical                                | Nominal Value (English)   | Nominal Value (SI)     | Test Method             |
| Tensile Modulus                           | 334000 psi                | 2300 MPa               | ISO 527-1/1             |
| Tensile Stress                            |                           |                        | ISO 527-2/50            |
| Yield                                     | 8700 psi                  | 60.0 MPa               |                         |
| Break                                     | 10400 psi                 | 72.0 MPa               |                         |
| Tensile Strain                            |                           |                        | ISO 527-2/50            |
| Yield                                     | 6.0 %                     | 6.0 %                  |                         |
| Break                                     | 150 %                     | 150 %                  |                         |
| Flexural Modulus <sup>1</sup>             | 348000 psi                | 2400 MPa               | ISO 178                 |
| Flexural Stress <sup>1</sup>              | 14100 psi                 | 97.0 MPa               | ISO 178                 |
| Impact                                    | Nominal Value (English)   | Nominal Value (SI)     | Test Method             |
| Charpy Notched Impact Strength            |                           |                        | ISO 179/1eA             |
| -22°F (-30°C)                             | 6.7 ft-lb/in <sup>2</sup> | 14 kJ/m <sup>2</sup>   |                         |
| 73°F (23°C)                               | 36 ft-lb/in <sup>2</sup>  | 75 kJ/m <sup>2</sup>   |                         |
| Notched Izod Impact                       |                           |                        |                         |
| 73°F (23°C)                               | 18 ft-lb/in               | 960 J/m                | ASTM D256               |
| 73°F (23°C)                               | 44 ft-lb/in <sup>2</sup>  | 93 kJ/m <sup>2</sup>   | ISO 180/A               |
| Thermal                                   | Nominal Value (English)   | Nominal Value (SI)     | Test Method             |
| Deflection Temperature Under Load         |                           |                        | ISO 75-2/A              |
| 264 psi (1.8 MPa), Unannealed             | 259 °F                    | 126 °C                 |                         |
| Vicat Softening Temperature               | 309 °F                    | 154 °C                 | ISO 306/B50             |
| Optical                                   | Nominal Value (English)   | Nominal Value (SI)     | Test Method             |
| Refractive Index                          | 1.586                     | 1.586                  | ISO 489                 |
| Light Transmittance (118.1 mil (3000 µm)) | 87.0 to 91.0 %            | 87.0 to 91.0 %         | ASTM D1003              |
| Haze                                      | < 1.00 %                  | < 1.00 %               | ASTM D1003              |

**Notes**

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

<sup>1</sup> 0.079 in/min (2.0 mm/min)

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