

CALIBRE™ 200-3

Trinseo - Polycarbonate Resin

General Information

Product Description

CALIBRE™ 200-3 polycarbonate resins are produced in compliance with the US Food and Drug Administration (FDA) and EU food contact regulations. This material offers exceptional impact resistance, heat distortion resistance and optical clarity as well as high melt strength for various extrusion processes. CALIBRE 200-3 contains no mold release or UV Stabilizer and is available in natural transparent colour only.

Govt. and Industry Standards:

- Europe Commission Regulation (EU) No 10/2011
- U.S. FDA 21 CFR 177.1580 (with Restrictions)
- NSF/ANSI 51 (North America Only)
- Underwriters Laboratory, Inc. (UL)

Applications:

- Blending, compounding
- Sheet, film and profile extrusion
- Appliances
- Housewares

General

| | | | |
|-------------------|---|--|--|
| Features | <ul style="list-style-type: none"> • Food Contact Acceptable • High Clarity | <ul style="list-style-type: none"> • High Impact Resistance • Low Flow | |
| Uses | <ul style="list-style-type: none"> • Blending • Compounding | <ul style="list-style-type: none"> • Film • Food Service Applications | <ul style="list-style-type: none"> • Sheet • Transparent Parts |
| Agency Ratings | <ul style="list-style-type: none"> • CSA | <ul style="list-style-type: none"> • EU 2011/10/EC | <ul style="list-style-type: none"> • FDA 21 CFR 177.1580 |
| RoHS Compliance | <ul style="list-style-type: none"> • RoHS Compliant | | |
| Appearance | <ul style="list-style-type: none"> • Clear/Transparent | | |
| Forms | <ul style="list-style-type: none"> • Pellets | | |
| Processing Method | <ul style="list-style-type: none"> • Compounding | <ul style="list-style-type: none"> • Sheet Extrusion | |

Properties¹

| Physical | Nominal Value | Unit | Test Method |
|--|---------------|-------------------|--------------|
| Density / Specific Gravity | 1.20 | | ASTM D792 |
| Density | 1.20 | g/cm ³ | ISO 1183 |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg) | 3.0 | g/10 min | ASTM D1238 |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg) | 3.0 | g/10 min | ISO 1133 |
| Water Absorption (Saturation, 73°F) | 0.32 | % | ISO 62 |
| Water Absorption (Equilibrium, 73°F, 50% RH) | 0.12 | % | ISO 62 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 334000 | psi | ISO 527-1/1 |
| Tensile Stress (Yield) | 8700 | psi | ISO 527-2/50 |
| Tensile Stress (Break) | 10400 | psi | ISO 527-2/50 |
| Tensile Strain (Yield) | 6.0 | % | ISO 527-2/50 |
| Tensile Strain (Break) | 150 | % | ISO 527-2/50 |
| Flexural Modulus ² | 348000 | psi | ISO 178 |
| Flexural Stress ² | 14100 | psi | ISO 178 |

CALIBRE™ 200-3

Trinseo - Polycarbonate Resin

| Impact | Nominal Value | Unit | Test Method |
|-------------------------------------|---------------|-----------------------|-------------|
| Charpy Notched Impact Strength | | | ISO 179/1eA |
| -22°F | 6.7 | ft·lb/in ² | |
| 73°F | 36 | ft·lb/in ² | |
| Notched Izod Impact (73°F) | 18 | ft·lb/in | ASTM D256 |
| Notched Izod Impact Strength (73°F) | 44 | ft·lb/in ² | ISO 180/1A |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load | | | ISO 75-2/A |
| 264 psi, Unannealed | 259 | °F | |
| Vicat Softening Temperature | 309 | °F | ISO 306/B50 |
| Optical | Nominal Value | Unit | Test Method |
| Refractive Index | 1.586 | | ISO 489 |
| Light Transmittance | 87.0 to 91.0 | % | ASTM D1003 |
| Haze | < 1.00 | % | ASTM D1003 |

Processing Information

| Injection | Nominal Value | Unit |
|--------------------|---------------|------|
| Drying Temperature | 248 | °F |
| Drying Time | 4.0 | hr |

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.079 in/min