



Wednesday, August 30, 2023

PRL PC-FR-UV2

Polymer Resources Ltd. - Polycarbonate

Units English ▼**Action****Legend** ([Open](#))**General Information****Product Description**

PRL PC FR UV2 is a non halogen FR PC product. It can be processed by injection molding and is available in North America.

General

| | |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material Status | • Commercial: Active |
| Availability | • North America |
| Features | <ul style="list-style-type: none"> • Flame Retardant • Halogen Free • High Impact Resistance • Medium Flow • Medium Heat Resistance • Self Extinguishing • UV Resistant |
| RoHS Compliance | • RoHS Compliant |
| Forms | • Pellets |
| Processing Method | • Injection Molding |

ASTM & ISO Properties ¹

| | Nominal Value | Unit | Test Method |
|-------------------------------------------------------------------|------------------|----------|-------------|
| Physical | | | |
| Density / Specific Gravity | 1.20 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg) | 9.0 to 16 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow (0.125 in) | 5.0E-3 to 7.0E-3 | in/in | ASTM D955 |
| Mechanical | | | |
| Tensile Strength (Yield, 0.125 in) | 10000 | psi | ASTM D638 |
| Tensile Strength (Break, 0.125 in) | 9000 | psi | ASTM D638 |
| Flexural Modulus (0.125 in) | 335000 | psi | ASTM D790 |
| Flexural Strength (Yield, 0.125 in, 2.00 in Span) | 13900 | psi | ASTM D790 |
| Impact | | | |
| Notched Izod Impact (73°F, 0.125 in) | 15 | ft·lb/in | ASTM D256 |
| Gardner Impact (0.125 in) | 320 | in·lb | ASTM D3029 |
| Thermal | | | |
| Deflection Temperature Under Load (66 psi, Unannealed, 0.125 in) | 275 | °F | ASTM D648 |
| Deflection Temperature Under Load (264 psi, Unannealed, 0.125 in) | 265 | °F | ASTM D648 |
| Flammability | | | |
| Flame Rating | | | UL 94 |
| 0.06 in, ALL | V-0 | | |
| 0.12 in, ALL | V-0 | | |
| 0.12 in | 5VA | | |

Processing Information

| | Nominal Value | Unit |
|------------------------|---------------|------|
| Injection | | |
| Drying Temperature | 245 to 255 | °F |
| Drying Time | 3.0 to 4.0 | hr |
| Drying Time, Maximum | 8.0 | hr |
| Rear Temperature | 520 to 560 | °F |
| Middle Temperature | 540 to 580 | °F |
| Front Temperature | 560 to 600 | °F |
| Processing (Melt) Temp | 550 to 600 | °F |
| Mold Temperature | 160 to 200 | °F |

Notes

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

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