

Westlake PVC UV-6676

Westlake Chemical Corporation - Rigid Polyvinyl Chloride

Friday, September 20, 2019

General Information

Product Description

AXIALL's Georgia Gulf UV-6676 is a weatherable, high flow injection molding compound, specially formulated for outdoor UV exposure. This compound was designed to be used in various accessory parts, such as fence post caps, rain gutter parts, deck parts, etc.

General

| | |
|-------------------|--|
| Material Status | • Commercial: Active |
| Availability | • North America |
| Features | • High Flow • UV Resistant • Weather Resistant |
| Uses | • Building Hardware |
| UL File Number | • E53006 |
| Forms | • Pellets |
| Processing Method | • Injection Molding |

ASTM & ISO Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|-----------------------------------|----------------|-------------------|-------------|
| Density / Specific Gravity | 1.40 | g/cm ³ | ASTM D792 |
| Molding Shrinkage - Flow | 0.30 to 0.40 | % | ASTM D955 |
| Outdoor Suitability | f2 | | UL 746C |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 2210 | MPa | ASTM D638 |
| Tensile Strength | 40.0 | MPa | ASTM D638 |
| Flexural Modulus | 2280 | MPa | ASTM D790 |
| Flexural Strength | 65.5 | MPa | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact | | | ASTM D256 |
| -20°C, 3.18 mm | 53 | J/m | |
| 23°C, 3.18 mm | 960 | J/m | |
| Gardner Impact (23°C) | 14.7 | J | ASTM D3029 |
| Drop Impact Resistance (23°C) | 89.0 | J/cm | ASTM D4226 |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale) | 97 | | ASTM D785 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, Unannealed | 72.0 | °C | |
| Deflection Temperature Under Load | | | ASTM D648 |
| 1.8 MPa, Unannealed | 70.0 | °C | |
| RTI Elec (1.5 mm) | 50.0 | °C | UL 746 |
| RTI Imp (1.5 mm) | 50.0 | °C | UL 746 |
| RTI Str (1.5 mm) | 50.0 | °C | UL 746 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating | • V-0 • 5VA | | UL 94 |
| Oxygen Index | 35 | % | ASTM D2863 |

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Additional Information

Flow Ratio, Georgia Gulf Test Method, Distance/Wall Thickness, 390-400°F: 230

Processing Information

| Injection | Nominal Value | Unit |
|-------------------------|----------------------|--------------------|
| Drying Temperature | 66 | °C |
| Drying Time | 2.0 to 4.0 | hr |
| Drying Time, Maximum | 6.0 | hr |
| Suggested Shot Size | 35 to 75 | % |
| Suggested Max Regrind | 50 | % |
| Rear Temperature | 163 | °C |
| Middle Temperature | 174 to 191 | °C |
| Front Temperature | 182 to 193 | °C |
| Nozzle Temperature | 177 to 193 | °C |
| Processing (Melt) Temp | 202 to 210 | °C |
| Mold Temperature | 16 to 49 | °C |
| Injection Pressure | 82.7 to 138 | MPa |
| Holding Pressure | 48.3 to 82.7 | MPa |
| Back Pressure | 0.345 to 1.38 | MPa |
| Screw Speed | 25 to 80 | rpm |
| Clamp Tonnage | 3.4 | kN/cm ² |
| Screw L/D Ratio | 16.0:1.0 to 24.0:1.0 | |
| Screw Compression Ratio | 1.5:1.0 to 2.5:1.0 | |

Notes

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