



Geon™ Vinyl Rigid Molding M3890

Rigid Polyvinyl Chloride

Key Characteristics

| General | | | |
|-----------------------|--|---|---|
| Material Status | • Commercial: Active | | |
| Regional Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Features | • General Purpose | • High Flow | • High Impact Resistance |
| Uses | • Appliances • Business Equipment | • Construction Applications • Electrical/Electronic Applications | • General Purpose • Telecommunications |
| Appearance | • Opaque | | |
| Forms | • Pellets | | |

Technical Properties ¹

| Physical | Typical Value (English) | Typical Value (SI) | Test Method |
|---|-------------------------|--------------------|-------------|
| Specific Gravity | 1.32 | 1.32 | ASTM D792 |
| Spiral Flow | 36.0 in | 91.4 cm | |
| Molding Shrinkage - Flow | 2.0E-3 to 5.0E-3 in/in | 0.20 to 0.50 % | ASTM D955 |
| Mechanical | Typical Value (English) | Typical Value (SI) | Test Method |
| Tensile Modulus ² | 350000 psi | 2410 MPa | ASTM D638 |
| Tensile Strength ² (Yield) | 6300 psi | 43.4 MPa | ASTM D638 |
| Tensile Elongation ² (Break) | 43 % | 43 % | ASTM D638 |
| Flexural Modulus | 351000 psi | 2420 MPa | ASTM D790 |
| Flexural Strength | 10000 psi | 68.9 MPa | ASTM D790 |
| Impact | Typical Value (English) | Typical Value (SI) | Test Method |
| Notched Izod Impact | | | ASTM D256A |
| 32°F (0°C), 0.125 in (3.18 mm), Injection Molded | 11 ft·lb/in | 590 J/m | |
| 73°F (23°C), 0.125 in (3.18 mm), Injection Molded | 12 ft·lb/in | 640 J/m | |
| Hardness | Typical Value (English) | Typical Value (SI) | Test Method |
| Durometer Hardness (Shore D) | 79 | 79 | ASTM D2240 |
| Thermal | Typical Value (English) | Typical Value (SI) | Test Method |
| Deflection Temperature Under Load | | | ASTM D648 |
| 66 psi (0.45 MPa), Unannealed, 0.250 in (6.35 mm) | 160 °F | 71.1 °C | |
| Deflection Temperature Under Load | | | ASTM D648 |
| 66 psi (0.45 MPa), Annealed, 0.250 in (6.35 mm) | 167 °F | 75.0 °C | |
| Deflection Temperature Under Load | | | ASTM D648 |
| 264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm) | 154 °F | 67.8 °C | |
| Deflection Temperature Under Load | | | ASTM D648 |
| 264 psi (1.8 MPa), Annealed, 0.250 in (6.35 mm) | 162 °F | 72.2 °C | |
| RTI Elec | 122 °F | 50.0 °C | UL 746 |
| RTI Imp | 122 °F | 50.0 °C | UL 746 |
| RTI Str | 122 °F | 50.0 °C | UL 746 |

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| Flammability | Typical Value (English) | Typical Value (SI) | Test Method |
|---|-------------------------|--------------------|-------------|
| Flame Rating (0.0550 in (1.40 mm), ALL) | V-0 | V-0 | UL 94 |

Processing Information

| Injection | Typical Value (English) | Typical Value (SI) |
|------------------------|-------------------------|--------------------|
| Processing (Melt) Temp | 390 to 410 °F | 199 to 210 °C |

Notes

¹ Typical values are not to be construed as specifications.

² Type I, 2.0 in/min (51 mm/min)

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