# Geon™ Vinyl Rigid Extrusion 87771

## Rigid Polyvinyl Chloride

### Key Characteristics

| General | | | |
|---|---|---|---|
| Material Status | • Commercial: Active | | |
| Regional Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Uses | • Outdoor Applications | • Profiles | • Windows & Doors |
| Agency Ratings | • AAMA 303 | | |
| Forms | • Pellets | | |
| Processing Method | • Extrusion | • Profile Extrusion | |

### Technical Properties [1]

| Physical | Typical Value (English) | Typical Value (SI) | Test Method |
|---|---|---|---|
| Specific Gravity | 1.43 | 1.43 | ASTM D792 |
| PVC Cell Classification | 1-41434-33 | 1-41434-33 | ASTM D4216 |
| **Mechanical** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Tensile Modulus [2] | 395000 psi | 2720 MPa | ASTM D638 |
| Tensile Strength [2] (Yield) | 6670 psi | 46.0 MPa | ASTM D638 |
| Flexural Modulus | 398000 psi | 2740 MPa | ASTM D790 |
| Flexural Strength | 11700 psi | 80.6 MPa | ASTM D790 |
| **Impact** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Notched Izod Impact | | | ASTM D256A |
| 73°F (23°C), 0.125 in (3.18 mm), Injection Molded | 23 ft·lb/in | 1200 J/m | |
| Across Flow : 73°F (23°C), 0.125 in (3.18 mm), Compression Molded | 4.1 ft·lb/in | 220 J/m | |
| Flow : 73°F (23°C), 0.125 in (3.18 mm), Compression Molded | 13 ft·lb/in | 680 J/m | |
| Drop Impact Resistance | | | ASTM D4226 |
| 73°F (23°C) [3] | 1.46 in·lb/mil | 64.9 J/cm | |
| 73°F (23°C) [4] | 3.57 in·lb/mil | 159 J/cm | |
| **Hardness** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Durometer Hardness (Shore D, 15 sec) | 84 | 84 | ASTM D2240 |
| **Thermal** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Deflection Temperature Under Load | | | ASTM D648 |
| 264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm) | 161 °F | 71.7 °C | |
| CLTE - Flow | 3.7E-5 in/in/°F | 6.7E-5 cm/cm/°C | ASTM D696 |
| **Additional Information** | **Typical Value (English)** | **Typical Value (SI)** | |
| Ease of Sizing | Excellent | Excellent | |

Note: The Cell Classification was determined using the notched Izod test with injection molded samples.

### Processing Information

| Injection | Typical Value (English) | Typical Value (SI) |
|---|---|---|
| Processing (Melt) Temp | 360 to 380 °F | 182 to 193 °C |

## Notes

[1] Typical values are not to be construed as specifications.

[2] Type I, 0.20 in/min (5.1 mm/min)

[3] Procedure A, C.125 Dart

[4] Procedure B, C.125 Dart

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