



## Geon™ Vinyl Rigid Extrusion L7007

### Rigid Polyvinyl Chloride

#### Key Characteristics

##### Product Description

Geon L7007 is recommended for whites and light pastel colors only. Not recommended for horizontal applications such as railing and decking except in white.

##### General

|                       |                                          |                             |                     |
|-----------------------|------------------------------------------|-----------------------------|---------------------|
| Material Status       | • Commercial: Active                     |                             |                     |
| Regional Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America     |
| Features              | • Good Impact Resistance                 | • Medium Gloss              | • Weather Resistant |
| Uses                  | • Outdoor Applications                   | • Profiles                  | • Windows & Doors   |
| Forms                 | • Cube                                   |                             |                     |
| Processing Method     | • Extrusion                              |                             |                     |

#### Technical Properties <sup>1</sup>

| Physical                                                                                                                                                                                                        | Typical Value (English)          | Typical Value (SI)    | Test Method |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------|-------------|
| Density / Specific Gravity                                                                                                                                                                                      | 1.46                             | 1.46                  | ASTM D792   |
| PVC Cell Classification                                                                                                                                                                                         | 1-42434-33                       | 1-42434-33            | ASTM D4216  |
| PVC Cell Classification                                                                                                                                                                                         | 15354                            | 15354                 | ASTM D1784  |
| Mechanical                                                                                                                                                                                                      | Typical Value (English)          | Typical Value (SI)    | Test Method |
| Tensile Modulus <sup>2</sup>                                                                                                                                                                                    | 413000 psi                       | 2850 MPa              | ASTM D638   |
| Tensile Strength <sup>2</sup> (Yield)                                                                                                                                                                           | 6260 psi                         | 43.2 MPa              | ASTM D638   |
| Flexural Modulus                                                                                                                                                                                                | 430000 psi                       | 2960 MPa              | ASTM D790   |
| Flexural Strength                                                                                                                                                                                               | 12300 psi                        | 84.8 MPa              | ASTM D790   |
| Impact                                                                                                                                                                                                          | Typical Value (English)          | Typical Value (SI)    | Test Method |
| Notched Izod Impact<br>73°F (23°C), 0.125 in (3.18 mm),<br>Compression Molded                                                                                                                                   | 11 ft·lb/in                      | 590 J/m               | ASTM D256A  |
| Drop Impact Resistance<br>73°F (23°C) <sup>3</sup><br>73°F (23°C) <sup>4</sup>                                                                                                                                  | 1.65 in·lb/mil<br>4.00 in·lb/mil | 73.4 J/cm<br>178 J/cm | ASTM D4226  |
| Hardness                                                                                                                                                                                                        | Typical Value (English)          | Typical Value (SI)    | Test Method |
| Durometer Hardness (Shore D, 15 sec)                                                                                                                                                                            | 80                               | 80                    | ASTM D2240  |
| Thermal                                                                                                                                                                                                         | Typical Value (English)          | Typical Value (SI)    | Test Method |
| Deflection Temperature Under Load <sup>5</sup><br>66 psi (0.45 MPa), Annealed, 0.125 in<br>(3.18 mm)                                                                                                            | 165 °F                           | 73.9 °C               | ASTM D648   |
| Deflection Temperature Under Load<br>264 psi (1.8 MPa), Annealed, 0.125 in<br>(3.18 mm), Compression Molded <sup>6</sup><br>264 psi (1.8 MPa), Annealed, 0.125 in<br>(3.18 mm), Compression Molded <sup>5</sup> | 166 °F<br>160 °F                 | 74.4 °C<br>71.1 °C    | ASTM D648   |
| CLTE - Flow                                                                                                                                                                                                     | 3.6E-5 in/in/°F                  | 6.4E-5 cm/cm/°C       | ASTM D696   |
| Additional Information                                                                                                                                                                                          | Typical Value (English)          | Typical Value (SI)    |             |
| Ease of Sizing<br>Geon L7007 is a higher gloss version of L7005.                                                                                                                                                | Acceptable                       | Acceptable            |             |

## Processing Information

| Extrusion        | Typical Value (English) | Typical Value (SI) |
|------------------|-------------------------|--------------------|
| Melt Temperature | 360 to 380 °F           | 182 to 193 °C      |

## Notes

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> Type I, 0.20 in/min (5.1 mm/min)

<sup>3</sup> Procedure A, C.125 Dart

<sup>4</sup> Procedure B, C.125 Dart

<sup>5</sup> Annealed at 50 deg.C

<sup>6</sup> Annealed at 60 deg.C



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