



# Geon™ Fiberloc™ 83510

## Rigid Polyvinyl Chloride

### Key Characteristics

| General                |                                          |                             |                        |
|------------------------|------------------------------------------|-----------------------------|------------------------|
| Material Status        | • Commercial: Active                     |                             |                        |
| Regional Availability  | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America        |
| Filler / Reinforcement | • Glass Fiber, 10% Filler by Weight      |                             |                        |
| Features               | • General Purpose                        | • High Flow                 |                        |
| Uses                   | • Construction Applications              | • General Purpose           | • Outdoor Applications |
| Forms                  | • Pellets                                |                             |                        |

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

| Physical                                                                                | Typical Value (English) | Typical Value (SI) | Test Method |
|-----------------------------------------------------------------------------------------|-------------------------|--------------------|-------------|
| Specific Gravity                                                                        | 1.45                    | 1.45               | ASTM D792   |
| Spiral Flow                                                                             | 35.0 in                 | 88.9 cm            |             |
| Molding Shrinkage - Flow                                                                | 5.0E-4 to 1.5E-3 in/in  | 0.050 to 0.15 %    | ASTM D955   |
| Mechanical                                                                              | Typical Value (English) | Typical Value (SI) | Test Method |
| Tensile Modulus <sup>2</sup>                                                            | 700000 psi              | 4830 MPa           | ASTM D638   |
| Tensile Strength <sup>2</sup> (Yield)                                                   | 8000 psi                | 55.2 MPa           | ASTM D638   |
| Tensile Elongation <sup>2</sup> (Break)                                                 | 4.0 %                   | 4.0 %              | ASTM D638   |
| Flexural Modulus                                                                        | 600000 psi              | 4140 MPa           | ASTM D790   |
| Flexural Strength                                                                       | 12000 psi               | 82.7 MPa           | ASTM D790   |
| Poisson's Ratio                                                                         | 0.42                    | 0.42               | ASTM E132   |
| Impact                                                                                  | Typical Value (English) | Typical Value (SI) | Test Method |
| Notched Izod Impact<br>73°F (23°C), 0.125 in (3.18 mm),<br>Injection Molded             | 1.0 ft·lb/in            | 53 J/m             | ASTM D256A  |
| Unnotched Izod Impact <sup>3</sup><br>73°F (23°C), 0.125 in (3.18 mm)                   | 7.0 ft·lb/in            | 370 J/m            | ASTM D4812  |
| Hardness                                                                                | Typical Value (English) | Typical Value (SI) | Test Method |
| Durometer Hardness (Shore D)                                                            | 82                      | 82                 | ASTM D2240  |
| Thermal                                                                                 | Typical Value (English) | Typical Value (SI) | Test Method |
| Deflection Temperature Under Load<br>264 psi (1.8 MPa), Annealed, 0.250 in<br>(6.35 mm) | 167 °F                  | 75.0 °C            | ASTM D648   |
| CLTE - Flow                                                                             | 2.2E-5 in/in/°F         | 4.0E-5 cm/cm/°C    | ASTM D696   |
| 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      |
| Flammability                                                                            | Typical Value (English) | Typical Value (SI) | Test Method |
| Flame Rating (0.06 in (1.5 mm), ALL)                                                    | • V-0<br>• 5VA          | • V-0<br>• 5VA     | UL 94       |

### Processing Information

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

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**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> Injection Molded

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