



**Product Data Sheet &  
General Processing Conditions**

**VLF 80109 CC  
Polypropylene (PP)  
Long Glass Fiber  
Chemically Coupled**

**PROPERTIES & AVERAGE VALUES OF INJECTION MOLDED SPECIMENS**

<b>PERMANENCE</b>	<b>English</b>	<b>SI Metric</b>	<b>ASTM TEST</b>
Primary Additive	50 %	50 %	
Specific Gravity	1.33	1.33	D 792
Molding Shrinkage			
1/8 in (3.2 mm) section	0.0010 - 0.0030 in/in	0.10 - 0.30 %	D 955

**MECHANICAL**

Impact Strength, Izod			
notched 1/8 in (3.2 mm) section	5.5 ft-lbs/in	294 J/m	D 256
unnotched 1/8 in (3.2 mm) section	18.0 ft-lbs/in	961 J/m	D 4812
Tensile Strength	18000 psi	124 MPa	D 638
Tensile Elongation	1.5 - 2.5 %	1.5 - 2.5 %	D 638
Tensile Modulus	1.70 x 10 <sup>6</sup> psi	11722 MPa	D 638
Flexural Strength	29000 psi	200 MPa	D 790
Flexural Modulus	1.50 x 10 <sup>6</sup> psi	10342 MPa	D 790

**THERMAL**

Deflection Temperature			
@ 264 psi (1820 kPa)	310 °F	154 °C	D 648
Ignition Resistance*			
Flammability**	HB @ 1/16 in	HB @ 1.5 mm	D 635

**PROPERTY NOTES**

Data herein is typical and not to be construed as specifications.

Unless otherwise specified, all data listed is for natural or black colored materials. Pigments can affect properties.

\* This rating is not intended to reflect hazards of this or any other material under actual fire conditions.

\*\* Values per RTP Company testing.

**GENERAL PROCESSING FOR INJECTION MOLDING**

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	English	SI Metric
Injection Pressure	10000 - 15000 psi	69 - 103 MPa
Melt Temperature	375 - 450 °F	191 - 232 °C
Mold Temperature	90 - 150 °F	32 - 66 °C
Drying	2 hrs @ 175 °F	2 hrs @ 79 °C

#### PROCESSING NOTES

Use a reverse barrel profile. To maximize fiber length, the following injection barrel, screw, and tip designs should be followed. L/D ratio 16/1 - 22/1, Compression ratio 2:1, Flight depth 0.200 in (5 mm) minimum, in feed section, Screw diameter 0.65 - 0.80 in (16.5 - 20 mm) minimum, Compression section length 12 - 13 diameters, Check ring valve assembly - free flow type no restrictions, Nozzle orifice 0.250 in (6 mm) diameter. Feed throat from hopper to machine must have sufficient opening to prevent bridging of long pellet composition.