



**Product Data Sheet &  
General Processing Conditions**

**VLF 80209 EM HS  
Nylon 6/6 (PA)  
Long Glass Fiber  
Easy Molding  
Heat Stabilized**

**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	1.57	1.57	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	8.0 ft-lbs/in	427 J/m	D 256
unnotched 1/8 in (3.2 mm) section	25.0 ft-lbs/in	1335 J/m	D 4812
Tensile Strength	37000 psi	255 MPa	D 638
Tensile Elongation	2.0 - 3.0 %	2.0 - 3.0 %	D 638
Tensile Modulus	2.50 x 10 <sup>6</sup> psi	17238 MPa	D 638
Flexural Strength	54000 psi	372 MPa	D 790
Flexural Modulus	2.20 x 10 <sup>6</sup> psi	15169 MPa	D 790

**THERMAL**

Deflection Temperature @ 264 psi (1820 kPa)	480 °F	249 °C	D 648
@ 66 psi (455 kPa)	500 °F	260 °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**

	<b>English</b>	<b>SI Metric</b>
Injection Pressure	5000 - 18000 psi	34 - 124 MPa
Melt Temperature	520 - 570 °F	271 - 299 °C
Mold Temperature	150 - 255 °F	66 - 124 °C
Drying	2 - 4 hrs @ 175 °F	2 - 4 hrs @ 79 °C
Moisture Content	0.20 %	0.20 %
Dew Point	0 °F	-18 °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.

Desiccant Type Dryer Required.

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This information is intended to be used only as a guideline for designers and processors of modified thermoplastics. Because design and processing is complex, a set solution will not solve all problems. Observation on a "trial and error" basis may be required to achieve desired results.

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.

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