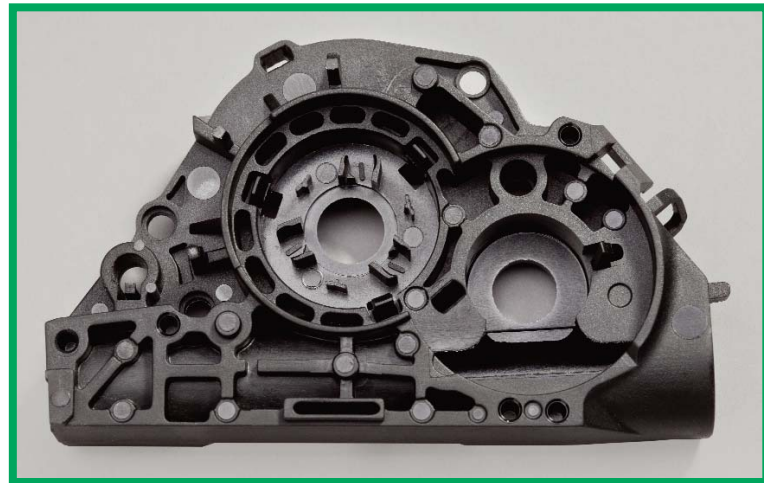


- ▶ Efficient manufacturing with injection moldable composites
- ▶ Light-weight and extremely stiff and tough
- ▶ Economical alternative to metal and thermoset composites

ADDITIONAL VLF BENEFITS

- Very long fibers create reinforcing skeleton throughout parts
- Produce complex designs that minimize assembly steps
- Create impact and corrosion resistant parts
- Processable with standard molding equipment
- Customizable to meet your performance requirements
- Available in semi-crystalline resins from PP to PEEK



VLF 80211 EM HS, a 60% long glass fiber reinforced nylon 6/6 material, injection molded into a complex shape with holes, ribs, and varying wall thicknesses, but maintains a smooth, resin-rich surface finish free of fibers.



Subjecting the part to pyrolysis removes the polymer and reveals an internal skeleton of interlocking very long fibers that retain the shape and detail of the original part. Proper molding ensures the fibers are thoroughly distributed within all detailed areas.



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VERY LONG FIBER COMPOSITES

REINFORCED THERMOPLASTICS FROM RTP COMPANY

Material Solutions - Featuring Nylon VLF Composites

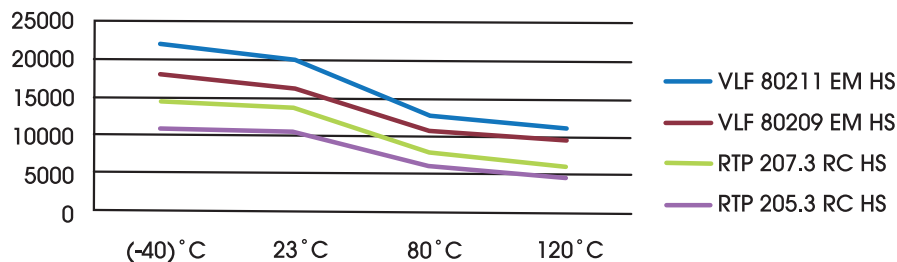
Nylon very long fiber composites from RTP Company are manufactured using a proprietary, melt impregnation pultrusion process that allows the reinforcing fibers to be continuous through the full 12 mm length of pellets.

Longer fiber length increases aspect ratio and provides more surface area for the plastic to grab onto and transfer stress to the reinforcement. Resulting materials have higher modulus and impact strength than when other types of reinforcements. These property enhancements are also better maintained by VLF composites at temperature extremes.

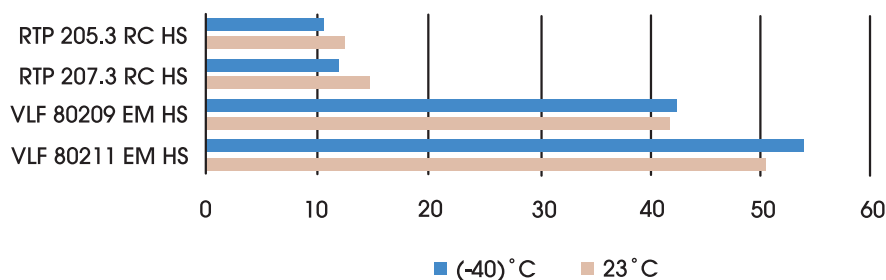
Physical Properties of Selected RTP Company Nylon Compounds

	Tensile Strength (MPa)	Tensile Modulus (MPa)	Flexural Strength (MPa)	Flexural Modulus (MPa)	Notched Charpy (J/m ²)
VLF 80211 EM HS (60% long glass fiber)	260	21,500	430	20,000	51
VLF 80209 EM HS (50% long glass fiber)	250	17,750	385	16,200	42
RTP 207.3 RC HS (43% short glass fiber)	215	14,750	330	13,750	15
RTP 205.3 RC HS (33% short glass fiber)	195	13,000	290	10,400	12

Flexural Modulus at Temperature (MPa)



Impact Strength at Temperature (J/m²)



RTP Company Nylon VLF Composites are manufactured and available worldwide.

RTP Company: Your Global Compounder Of Custom Engineered Thermoplastics

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