



# SHORT GLASS FIBER COMPOUNDS

STRUCTURAL PRODUCT

## FEATURES

- Bridge the price-to-performance gap between Neat Resins and Long Fiber Compounds
- Can be individually formulated to end-use specifications
- Available in standard formulations with 10 - 50% glass loading by weight

## BENEFITS

- Improve tensile and flexural performance of Neat Resins
- Increased short-term temperature performance
- Extra performance compared to Neat Resins
- Create strong, lightweight parts with cost-efficient compounds
- Easily run in conventional injection molding equipment



Short Glass Fiber pellets typically range from 1 - 3 mm in length, whereas Long Glass Fiber pellets are often 12 mm in length.

Data on Short Glass Fiber Compounds is available on our website at [www.rtpcompany.com](http://www.rtpcompany.com)



*These applications, a leveling tool and an HVAC fan, are just two of many products that benefit from the strength and dimensional stability of Short Glass Fiber Compounds.*

## SHORT GLASS FIBER COMPOUNDS

Short Glass Fiber Compounds are excellent for material replacement applications where extra performance over neat resins is necessary. These compounds offer excellent strength and dimensional stability, and bridge the price-to-performance gap between neat resins and long fiber compounds.

Short Glass Fiber Compounds from RTP Company can be individually formulated to end-use specifications and offer better physical properties than competing materials by use of proprietary compounding techniques and a long history of research and development. Pellet lengths up to 3mm may be chosen for maximum performance, depending on processing requirements – yet run easily in conventional molding equipment.

Standard formulations with 10 – 50% glass loading by weight are available in all commodity and engineering resin systems. The benefits of fiber reinforcement are more dramatic in semi-crystalline polymers, particularly toughness.

Applications that can benefit from using Short Glass Fiber Compounds include power and hand tools, sporting goods, automotive, HVAC components, computer and electronic devices such as brackets and housings, outdoor gardening equipment, and door handles and levers.

Short Glass Fiber Compounds from RTP Company... another technology solution from your global compounder of custom engineered thermoplastics.



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# SHORT GLASS FIBER COMPOUNDS

## PROPERTY COMPARISON: NEAT RESIN, SHORT GLASS FIBER, AND LONG GLASS FIBER COMPOUNDS

POLYPROPYLENE	RTP 100 Base Resin	RTP 107 CC 40% Short Glass	RTP 107 XP	VLF 80107 CC 40% Long Glass
<b>Specific Gravity</b>	0.91	<b>1.21</b>	1.21	1.21
<b>Tensile Strength</b>	4,700 psi (32 MPa)	<b>13,000 psi (90 MPa)</b>	16,000 psi (110 MPa)	17,500 psi (121 MPa)
<b>Flexural Modulus</b>	0.2 x 10 <sup>6</sup> psi (1,400 MPa)	<b>1 x 10<sup>6</sup> psi (6,900 MPa)</b>	1.23 x 10 <sup>6</sup> psi (8,500 MPa)	1.2 x 10 <sup>6</sup> psi (8,300 MPa)
<b>Notched Izod Impact</b>	1 ft*lb/in (53 J/m)	<b>2 ft*lb/in (107 J/m)</b>	3 ft*lb/in (160 J/m)	5 ft*lb/in (267 J/m)

NYLON 6/6	RTP 200 Base Resin	RTP 207 40% Short Glass	VLF 80207 EM HS 40% Long Glass
<b>Specific Gravity</b>	1.14	<b>1.46</b>	1.46
<b>Tensile Strength</b>	12,000 psi (83 MPa)	<b>27,000 psi (186 MPa)</b>	33,000 psi (228 MPa)
<b>Flexural Modulus</b>	0.4 x 10 <sup>6</sup> psi (2,750 MPa)	<b>1.68 x 10<sup>6</sup> psi (11,600 MPa)</b>	1.7 x 10 <sup>6</sup> psi (11,700 MPa)
<b>Notched Izod Impact</b>	1 ft*lb/in (53 J/m)	<b>2.3 ft*lb/in (123 J/m)</b>	6 ft*lb/in (320 J/m)

POLYPHTHALAMIDE	RTP 4000 Base Resin	RTP 4007 40% Short Glass	VLF 84007 40% Long Glass
<b>Specific Gravity</b>	1.2	<b>1.55</b>	1.55
<b>Tensile Strength</b>	11,000 psi (76 MPa)	<b>32,000 psi (221 MPa)</b>	33,000 psi (228 MPa)
<b>Flexural Modulus</b>	0.6 x 10 <sup>6</sup> psi (4,100 MPa)	<b>1.95 x 10<sup>6</sup> psi (13,400 MPa)</b>	2.1 x 10 <sup>6</sup> psi (14,500 MPa)
<b>Notched Izod Impact</b>	0.6 ft*lb/in (32 J/m)	<b>2 ft*lb/in (107 J/m)</b>	4 ft*lb/in (214 J/m)



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