

GLASS REINFORCED POLYPROPYLENE

Polifil® GFPP series compounds are homopolymer polypropylene resins reinforced with glass fibers. They provide high impact with increased strength, stiffness, surface hardness, and higher continuous use temperature. Other benefits include reduced distortion under long-term stress. These compounds are used in appliances, electrical components, automotive, and utility products. Standard processing techniques are applicable. Use this information as a guide to aid you in selecting the proper resin for your application. TPG will custom compound and fine-tune our formulations for your application.

| PHYSICAL | ASTM / Method | Units | Polifil® GFPP-10 | Polifil® GFPP-20 | Polifil® GFPP-30 | Polifil® GFPP-40 |
|--------------------------------|----------------------|--------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Reinforcement Content | TPG WI | % | 10 | 20 | 30 | 40 |
| Specific Gravity | D 792 | - | 0.98 | 1.04 | 1.13 | 1.22 |
| Melt Flow (230/2.16) | D 1238 | g/10 min | 4-10* | 4-10* | 4-10* | 4-10* |
| Water Absorption, 24 Hours | D 570 | % | nil | nil | nil | nil |
| Mold Shrinkage – 1/8” Specimen | D 955 | in/in | 0.005 | 0.003 | 0.003 | 0.002 |
| MECHANICAL @ 73°F | | | | | | |
| Tensile Strength | D 638 | psi | 5,700 | 6,500 | 7,100 | 7,800 |
| Elongation @ Yield | D 638 | % | 3.0 | 3.0 | 3.0 | 2.0 |
| Elongation @ Break | D 638 | % | 6.0 | 4.0 | 4.0 | 3.0 |
| Tensile Modulus | D 638 | kpsi | 295 | 405 | 520 | 630 |
| Flexural Modulus (tangent) | D 790 | kpsi | 340 | 436 | 620 | 800 |
| Flexural Strength | D 790 | psi | 7,400 | 8,200 | 10,500 | 11,400 |
| Izod Impact (notched) | D 256 | ft-lbs/in | 1.0 | 1.2 | 1.2 | 1.2 |
| Gardner Impact (1/2” tup) | D 5420 | in-lbs | 8 | 6 | 4 | 4 |
| Rockwell Hardness | D 785 | R-Scale | 85 | 90 | 96 | 102 |
| THERMAL | | | | | | |
| Deflection Temperature, 66psi | D 648 | °F | 285 | 300 | 310 | 315 |
| Deflection Temperature, 264psi | D 648 | °F | 255 | 270 | 290 | 300 |

**melt flow may be specified*



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The property values listed above have been obtained using laboratory controlled test methods. They are offered without guarantee since conditions under which the product is used are beyond our control. Mold shrinkage is intended as a guide only, as specific shrinkage is affected by part design, mold design and molding conditions. Therefore, The Plastics Group disclaims any liability for loss or damage incurred in connection with the use of this product.