

Chemically Coupled High-Impact Glass-Reinforced Polypropylene

Polifil® GFRMPPCC series compounds are high impact polypropylenes reinforced with chemically coupled glass fibers. This combination provides higher impact strength while retaining high stiffness. 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	Polifil® GFRMPPCC-10	Polifil® GFRMPPCC-20	Polifil® GFRMPPCC-30	Polifil® GFRMPPCC-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 (g/10 min)	D 1238	4-10*	4-10*	4-10*	4-10*
Water absorption, 24 hours (%)	D 570	nil	nil	nil	nil
Mold shrinkage – 1/8" specimen (in/in)	D 955	0.006	0.004	0.0035	0.003

MECHANICAL @ 73°F

Tensile strength (psi)	D 638	6,000	8,100	10,000	12,500
Elongation @ yield (%)	D 638	4.0	4.0	3.0	3.0
Elongation @ break (%)	D 638	7.0	5.0	4.0	3.0
Tensile modulus (kpsi)	D 638	280	380	495	580
Flexural modulus, tangent (kpsi)	D 790	310	420	560	700
Flexural strength (psi)	D 790	7,100	9,300	12,100	14,000
Izod impact, notched (ft-lbs/in)	D 256	3.2	3.0	3.0	3.0
Gardner impact, 1/2" tup (in-lbs)	D 5420	12	10	8	6
Rockwell hardness (R-scale)	D 785	82	88	92	96

THERMAL

Deflection temperature, 66psi (°F)	D 648	270	290	300	305
Deflection temperature, 264psi (°F)	D 648	250	275	285	295

*melt flow may be specified

The Plastics Group of America

