

CHEMICALLY COUPLED GLASS REINFORCED POLYPROPYLENE

Polifil® GFPPCC series compounds are homopolymer polypropylenes reinforced with chemically coupled glass fibers. These compounds offer superior strength and stiffness, improved elevated temperature performance, better creep resistance, higher impact strength, and higher resistance to high temperature water than conventional glass fiber reinforced polypropylenes. These compounds are used in chemical resistance applications, appliances, electrical components, automotive, irrigation 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®	Polifil®	Polifil®	Polifil®
			GFPPCC 10	GFPPCC 20	GFPPCC 30	GFPPCC 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	0.006	0.004	0.0035	0.003
MECHANICAL @ 73°F						
Tensile Strength	D 638	psi	7,800	11,800	13,500	16,000
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	330	440	530	700
Flexural Modulus (tangent)	D 790	kpsi	390	210	790	980
Flexural Strength	D 790	psi	9,500	13,500	16,800	21,000
Izod Impact (notched)	D 256	ft-lbs/in	1.2	1.6	1.8	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.