

POLIFIL® GFPPCC-WS DATA SHEET

DOING THE NEEDFUL SINCE 1973

Chemically Coupled Glass-Reinforced Polypropylene Certified to NSF/ANSI Standard 61 (Black, White, or Natural)

Polifil® GFPPCC-WS series compounds are Water Safe Homopolymer polypropylenes reinforced with chemically coupled glass fibers and are certified to NSF/ANSI/CAN 61 Standard, and meet the regulatory requirements of the U.S. and Canada for Drinking Water System Components. 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. Polifil® GFPPCC products are UL94 HB rated. These compounds are used in chemical resistance applications, appliances, electrical components, automotive, irrigation, utility, filter systems, and potable water products. Standard processing techniques are applicable. Use this information as a guide to aid you in selecting the proper resin for your application.

PHYSICAL	ASTM/ Method	Polifil® GFPPCC -1005WS	Polifil [®] GFPPCC -2005WS	Polifil® GFPPCC -3005WS	Polifil [®] GFPPCC -4005WS
Ash content (%)	D 2584	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	5.0	5.0	5.0	5.0
Water absorption, 24 hours (%)	D 570	0.03	0.03	0.03	0.03
Mold shrinkage 0.098" wall (in/in)					
Flow Direction	D 955	0.006	0.004	0.004	0.003
Crossflow Direction	D 955	0.011	0.010	0.009	0.008
MECHANICAL @ 73°F					
MECHANICAL @ 73°F Tensile strength @ yield (psi)	D 638	6,600	9,500	11,600	13,800
	D 638	6,600 6.8	9,500 5.5	11,600 4.5	13,800 4.0
Tensile strength @ yield (psi)		•	•		
Tensile strength @ yield (psi) Elongation @ break (%)	D 638	6.8	5.5	4.5	4.0
Tensile strength @ yield (psi) Elongation @ break (%) Flexural modulus, tangent (kpsi)	D 638 D 790	6.8	5.5 510	4.5 790	4.0 980
Tensile strength @ yield (psi) Elongation @ break (%) Flexural modulus, tangent (kpsi) Flexural strength @ yield (psi)	D 638 D 790 D 790	6.8 390 9,500	5.5 510 13,500	4.5 790 15,400	4.0 980 17,800
Tensile strength @ yield (psi) Elongation @ break (%) Flexural modulus, tangent (kpsi) Flexural strength @ yield (psi) Izod, notched @ R.T. (ft-lbs/in)	D 638 D 790 D 790	6.8 390 9,500	5.5 510 13,500	4.5 790 15,400	4.0 980 17,800
Tensile strength @ yield (psi) Elongation @ break (%) Flexural modulus, tangent (kpsi) Flexural strength @ yield (psi) Izod, notched @ R.T. (ft-lbs/in)	D 638 D 790 D 790 D 256	6.8 390 9,500 1.2	5.5 510 13,500 1.5	4.5 790 15,400 1.6	4.0 980 17,800 1.9

^{**} TPG UL File# E84888. This rating is not intended to reflect hazards of this or any other material under actual fire conditions.

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. Not to be used for specification purposes.