



POLIFIL® GFN/MRN 6/6 DATA SHEET

DOING THE NEEDFUL SINCE 1973

Glass & Mineral Reinforced Nylons 6/6

Polifil® GFN/MRN 6/6 reinforced series of compounds offer superior strength, rigidity and creep resistance. Glass fibers provide excellent thermal and dimensional stability while maintaining good heat and chemical resistance. Polifil® GFN/MRN are excellent candidates for bike components and fuel caps, as well as other automotive components. 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® 628-13GF	Polifil® 628-33GF	Polifil® 71MR	Polifil® 78MRGF
Reinforcement content (%)	TPG WI	13	33	40	40
Specific gravity	D 792	1.22	1.38	1.50	1.45
Melt flow (g/10 min)	D 1238	n/a	n/a	n/a	n/a
Water absorption, 24 hours (%)	D 570	1.1	0.75	0.6	0.7
Mold shrinkage – 1/8" specimen (in/in)	D 955	0.005	0.003	0.003	0.002

MECHANICAL @ 73°F*

Tensile strength (psi)	D 638	14,000	24,000	12,800	18,000
Elongation @ yield (%)	D 638	2	3	3	2
Elongation @ break (%)	D 638	3	3	12	5
Tensile modulus (kpsi)	D 638	740	1,400	700	1,000
Flexural modulus, tangent (kpsi)	D 790	700	1,200	560	950
Flexural strength (psi)	D 790	20,000	33,000	20,000	27,000
Izod impact, notched (ft-lbs/in)	D 256	1.0	2.1	1.1	1.2
Gardner impact, 1/2" tup (in-lbs)	D 5420	6	4	12	5
Rockwell hardness (R-scale)	D 795	120	120	115	120

THERMAL

Deflection temperature, 66psi (°F)	D 648	480	490	473	495
Deflection temperature, 264psi (°F)	D 648	470	480	437	455

*all properties tested dry as molded

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.

The Plastics Group of America

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