



# POLIFIL® GFN/MRN 6 DATA SHEET

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## Glass & Mineral Reinforced Nylon 6

Polifil® GFN/MRN 6 reinforced series of compounds provide good heat and dimensional stability and offer extended or continuous stability under high temperatures. These have been found useful in industrial clamp components as well as bearings. 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® 930L-13GF	Polifil® 930L-33GF	Polifil® 89MRG-FHS	Polifil® 82MR
Reinforcement content (%)	TPG WI	13	33	40	40
Specific gravity	D 792	1.21	1.36	1.48	1.45
Melt flow (g/10 min)	D 1238	n/a	n/a	n/a	n/a
Water absorption, 24 hours (%)	D 570	1.4	1.1	0.09	0.9
Mold shrinkage – 1/8" specimen (in/in)	D 955	0.005	0.003	0.004	0.006

### MECHANICAL @ 73°F\*

Tensile strength (psi)	D 638	16,000	23,000	17,000	12,000
Elongation @ yield (%)	D 638	2.0	2.0	2.0	3.0
Elongation @ break (%)	D 638	3.0	3.0	3.0	6.0
Tensile modulus (kpsi)	D 638	900	1,350	1,000	800
Flexural modulus, tangent (kpsi)	D 790	750	1,200	950	750
Flexural strength (psi)	D 790	23,000	30,000	24,000	19,000
Izod impact, notched (ft-lbs/in)	D 256	1.0	2.0	1.8	0.9
Gardner impact, 1/2" tup (in-lbs)	D 5420	6	4	6	12
Rockwell hardness (R-scale)	D 785	119	119	121	114

### THERMAL

Deflection temperature, 66psi (°F)	D 648	420	420	420	400
Deflection temperature, 264psi (°F)	D 648	390	410	390	245

\*all properties tested dry as molded

The Plastics Group of America

