

**MICA REINFORCED POLYPROPYLENE**

**Polifil® M** series compounds are homopolymer polypropylene resins reinforced with mica. They combine an improved range of high-stiffness values with low mold shrinkage. These compounds are used in large area broad span applications where high modulus values are required and retained. 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.

<b>PHYSICAL</b>	<b>ASTM / Method</b>	<b>Units</b>	<b>Polifil® M-20</b>	<b>Polifil® M-40</b>
Reinforcement Content	TPG WI	%	20	40
Specific Gravity	D 792	-	1.05	1.23
Melt Flow (230/2.16)	D 1238	g/10 min	8-12*	8-12*
Water Absorption, 24 Hours	D 570	%	nil	nil
Mold Shrinkage – 1/8" Specimen	D 955	in/in	0.011	0.008

**MECHANICAL @ 73°F**

Tensile Strength	D 638	psi	4,500	4,400
Elongation @ Yield	D 638	%	4.0	3.0
Elongation @ Break	D 638	%	8.0	6.0
Tensile Modulus	D 638	kpsi	360	600
Flexural Modulus (tangent)	D 790	kpsi	462	750
Flexural Strength	D 790	psi	6,100	8,000
Izod Impact (notched)	D 256	ft-lbs/in	0.95	0.88
Gardner Impact (1/2" tup)	D 5420	in-lbs	6.0	4.0
Rockwell Hardness	D 785	R-Scale	96	108

**THERMAL**

Deflection Temperature, 66psi	D 648	°F	260	290
Deflection Temperature, 264psi	D 648	°F	180	240

*\*melt flow may be specified*

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.



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