POLIFIL® M DATA SHEET

DOING THE NEEDFUL SINCE 1973

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.

PHYSICAL	ASTM/ Method	Polifil® M-20	Polifil® M-40
Reinforcement content (%)	TPG WI	20	40
Specific gravity	D 792	1.05	1.23
Melt flow 230/2.16 (g/10 min)	D 1238	8-12*	8-12*
Water absorption, 24 hours (%)	D 570	nil	nil
Mold shrinkage – 1/8″ specimen (in/in)	D 955	0.011	0.008
MECHANICAL @ 73°F			
Tensile strength (psi)	D 638	4,500	4,400
Elongation @ yield (%)	D 638	4.0	3.0
Elongation @ break (%)	D 638	8.0	6.0
Tensile modulus (kpsi)	D 638	360	600
Flexural modulus, tangent (kpsi)	D 790	462	750
Flexural strength (psi)	D 790	6,100	8,000
Izod impact, notched (ft-lbs/in)	D 256	0.95	0.88
Gardner impact, 1/2″ tup (in-lbs)	D 5420	6.0	4.0
Hardness, shore (D-scale)	D 1415	96	108
THERMAL			
Deflection temperature, 66psi (°F)	D 648	260	290
Deflection temperature, 264psi (°F)	D 648	180	240

**melt flow may be specified*