

REPROCESSED HIGH IMPACT POLYSTYRENE

Polifil® RP-HIPS combines the good stiffness properties of polystyrene, with enhanced impact properties gained by the addition of impact modifiers. An amorphous resin, HIPS has good melt strength, and a wide melt processing window, making the resin ideal for many sheet and thermoforming applications. Injection molding applications include cutlery, appliance parts, and furniture components. Sheet extrusion applications include thermoformed plates, cups, and trays. 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	Units	Polifil® RP-HIPS
Reinforcement Content	TPG WI	%	
Specific Gravity	D 792	-	1.05
Melt Flow (200/5.0)	D 1238	g/10 min	3-8*
Water Absorption, 24 Hours	D 570	%	< 0.1
Mold Shrinkage – 1/8” Specimen	D 955	in/in	0.005
MECHANICAL @ 73°F			
Tensile Strength	D 638	psi	3600
Elongation @ Yield	D 638	%	5
Elongation @ Break	D 638	%	20
Tensile Modulus	D 638	kpsi	260
Flexural Modulus (tangent)	D 790	kpsi	310
Flexural Strength	D 790	psi	7200
Izod Impact (notched)	D 256	ft-lbs/in	2.0
Gardner Impact (1/2” tup)	D 5420	in-lbs	60
Rockwell Hardness	D 785	R-Scale	92
THERMAL			
Deflection Temperature, 66psi	D 648	°F	195
Deflection Temperature, 264psi	D 648	°F	170

**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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