



# POLIFIL® RP-HIPS DATA SHEET

DOING THE NEEDFUL SINCE 1973

## 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, usually butadiene rubber. An amorphous resin, HIPS has low post-molding shrinkage, 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.

PHYSICAL	ASTM/ Method	Polifil® RP-HIPS
Reinforcement content (%)	TPG WI	-
Specific gravity	D 792	1.05
Melt flow 200/5.0 (g/10 min)	D 1238	3-8*
Water absorption, 24 hours (%)	D 570	<0.1
Mold shrinkage – 1/8" specimen (in/in)	D 955	0.005

### MECHANICAL @ 73°F

Tensile strength (psi)	D 638	3,600
Elongation @ yield (%)	D 638	5
Elongation @ break (%)	D 638	20
Tensile modulus (kpsi)	D 638	260
Flexural modulus, tangent (kpsi)	D 790	310
Flexural strength (psi)	D 790	7,200
Izod impact, notched (ft-lbs/in)	D 256	2.0
Gardner impact, 1/2" tup (in-lbs)	D 5420	60
Rockwell hardness (R-scale)	D 785	92

### THERMAL

Deflection temperature, 66psi (°F)	D 648	195
Deflection temperature, 264psi (°F)	D 648	170

*\*melt flow may be specified*

The Plastics Group of America

