HIPS
(High Impact Polystyrene)

HIPS is a low cost plastic material that is easy to machine and fabricate. HIPS is often specified for low strength structural applications when impact resistance, machinability, and low cost are required. It is frequently used machining pre-production prototypes since it has excellent dimensional stability and is easy to fabricate, paint and glue. The following physical property information is based on typical values of the base high impact polystyrene resin.

Advantages of HIPS:
- Good impact resistance
- Excellent machinability
- Good dimensional stability
- Excellent aesthetic qualities
- Easy to paint and glue
- Low cost

Applications Include:
- Machined prototypes
- Low-strength structural components
- Housings
- Covers

Property	ASTM Test Method	Units	HIPS
Physical			
Specific Gravity	D792	—	1.04
Mechanical			
Flexural Modulus	D790	psi	240,000
Flexural Strength @yield	D790	psi	4,210
Izod Impact Strength Notched @73°F	D256	ft-lb/in	2.8
Tensile Elongation @break	D638	%	50
Tensile Strength @yield	D638	psi	>3,000
Thermal			
Vicat Softening Temp.	D1525	°F	210
Flammability Rating–UL94	—	—	HB
Heat Deflection Temperature @264 psi	D648	°F	185

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. All values at 73°F (23°C) unless otherwise noted.