



## 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 applications when moderate impact resistance, machinability, and low cost are required. It is frequently used for machining pre-production prototypes since it has excellent dimensional stability and is easy to fabricate, paint and glue. Natural (translucent white) HIPS is FDA compliant for use in food processing applications.

The following physical property information is based on typical values of the base high impact polystyrene resin.

### Applications Include:

- Machined prototypes
- Low-strength structural components
- Housings
- Covers

### Advantages of HIPS:

- Excellent machinability
- Good dimensional stability
- Excellent aesthetic qualities
- Easy to paint and glue
- Low cost
- FDA compliant

### Manufacturing Capabilities:

- **Rod:** 1/4" to 6" dia.
- **Sheet:** 1/8" to 4" thick
- **Film:** .001" to .029" thick

### Colors/Grades:

- Translucent white

In addition to our standard capabilities, Westlake also has the ability to process custom resins in various sizes and colors with some exceptions.

Property	Units	Test Standard	Result
<b>Mechanical</b>			
Flexural Modulus	psi	ASTM D790	275,000
Flexural Strength @yield	psi	ASTM D790	5,200
Hardness	R Scale	ASTM D785	R107
Izod Impact Strength Notched @73°F	ft-lbs/in	ASTM D256	2.1
Tensile Elongation @break	%	ASTM D638	65
Tensile Modulus	psi	ASTM D638	270,000
Tensile Strength @break	psi	ASTM D638	3,700
@yield	psi	ASTM D638	3,900
<b>Thermal</b>			
Coefficient of Thermal Expansion	in/in/°F	ASTM D696	5.0x10 <sup>-5</sup>
Flammability Rating @.040"	—	UL94	HB
Heat Deflection Temperature @66 psi	°F	ASTM D648	192
@264 psi	°F	ASTM D648	174
<b>Other</b>			
Specific Gravity	—	ASTM D792	1.04