



ISO 9001:2008 and ISO 13485:2003 Certified

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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 machinabilityGood dimensional stability
- Excellent aesthetic qualities
- Easy to paint and glueLow 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
Mechanical			
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 Thermal	psi	ASTM D638	3,900
Coefficient of Thermal Expansion	in/in/°F	ASTM D696	5.0x10⁻⁵
Flammability Rating @.040"	_	UL94	НВ
Heat Deflection Temperature			
@66 psi	°F	ASTM D648	192
@264 psi	°F	ASTM D648	174
Other			
Specific Gravity	_	ASTM D792	1.04

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6/13