

Styrene (HIPS)

High-Impact Polystyrene Sheet

HIPS is the low-cost POP standard for temporary indoor and outdoor signage, and the substrate of choice when you need impact resistance, deep-draw thermoforming, and predictable printability at a competitive price.

Applications

- POP signage: shelf talkers, wobblers, table tents, shelf strips, danglers, posters
- Temporary ID cards and badges
- Housekeeping and parking-lot signage
- Packaging and one-time-use items
- Printed toys, games, and promotional pieces
- Thermoformed trays, clamshells, and refrigerator liners
- Model board and prototyping

Features & Benefits

- Low-cost POP sign standard for temporary indoor and outdoor use.
- High dyne levels and matte surface make printing easy by screen or litho.
- Available in a wide variety of gauges and stock sizes.
- Excellent coating, metalizing, die-cutting, and heat-bending characteristics.
- High heat distortion temperature with excellent low-temperature toughness.
- Litho-grade option engineered for high-speed ink adhesion.

Print & Process Compatibility

Toner ✓ · HP Indigo ✓ (treated) · UV Inkjet ✓ · Solvent Inkjet ✓ · Screen ✓ · Offset ✓ · Litho ✓

AVAILABLE SURFACES, FINISHES & GAUGES

Surface / Finish	Description	Stock Gauges
Matte / Matte (stock)	Slightly textured surface in nine stock gauges. Stock colors include white, black, and yellow. Opacity levels from translucent to dead white.	Nine stock gauges
Gloss / Gloss	Corona-treated for high dyne levels and reliable ink adhesion.	Stock
Litho Grade	Special mixture engineered for high-speed litho ink adhesion.	Stock

TYPICAL PROPERTIES

Property	Typical Value	Test Method
Physical		
Specific Gravity	1.03	ASTM D 792
Vicat Softening Temperature	213°F / 100°C (rate B)	ASTM D 1525
Deflection Temp. Under Load (DTUL)	185°F / 85°C (264 psi, 1.8 MPa)	ASTM D 648
Bulk Density	38 – 42 lb/ft ³	—
Linear Mold Shrinkage	0.004 – 0.008 in/in (24 hr)	ASTM D 955
Melt Flow Rate	3.0 g/10min (200°C, 5.0 kg)	ASTM D 1238

Property	Typical Value	Test Method
Mechanical		
Tensile Strength	Min 6,300 psi	ASTM D 638
Tensile Modulus	2,800 psi (1,620 MPa) @ 2.0 in/min	ASTM D 638
Tensile Elongation	75 % @ 2.0 in/min	ASTM D 638
Flexural Strength	4,600 psi (32 MPa) @ 0.1 in/min	ASTM D 790B
Flexural Modulus	238,000 psi (1,640 MPa) @ 0.1 in/min	ASTM D 790B
Notched Izod Impact	2.1 ft-lb/in (112 J/m) @ 73°F	ASTM D 256

Properties reported here are typical of average lots. K&R Plastics, Inc. and its manufacturers make no representation or warranty that the material in any particular shipment will conform exactly to the values given. Unless otherwise noted, all tests run at 23°C (73°F) and 50% relative humidity. Job-specific qualification recommended for production runs — request a sample.