

High Impact Polystyrene

HIPS, Styrene, ethenylbenzene,
vinyl benzene, phenylethene

Prime Impax®, DigiMax®,
LithoMax®, SceenMax®



Styrene Overview

High impact styrene meets a wide variety of applications and is one of the most versatile and inexpensive materials available today. Interstate Plastics offers both forming and printable grades that may also be FDA compliant. HIPS is used for models, prototypes, signs, displays, enclosures, and thousands of everyday products for home, school, work and play. It can be drilled, threaded, sawed, sheared, punched and machined. It can also be painted and has excellent forming properties. HIPS can be thermoformed in standard thermoforming ovens. Due to the amorphous properties of HIPS, it is typically one of the easier polymer sheet materials to form. Its maximum heat resistance is 180F and the forming temp is 300F to 350F.

Styrene Applications

- Printing HIPS Applications: Signs, I.D. Cards, Name Tags, Dials / Decals, Point of Sale Applications,
- Forming HIPS Applications, Medical Packaging, Food Trays & Containers, Model Making, Dairy Containers, Industrial Packaging, Lids, Plates, Trays, Patterns & Forms
- Prototypes, displays, enclosures, and thousands of everyday products for home, school, work and play.
- Building insulation, tub and shower enclosures, automobile application, marine applications.
- Consistent, easily printed matte surface for either one or two sided printing applications. Perfect to be formed for demanding end-use applications in the food, dairy, and medical packaging industries.


Styrene Features


- Low cost
- Easy to print and paint on
- Easy to assemble with adhesives and solvents
- Outstanding thermoforming characteristics
- Good machinability
- High impact strength

Styrene Specifications

Specific gravity	1.04
Max. heat resistance	180F
Forming temperature	300F to 350F
Heat deflection temperature	185F
Izod Impact	2.0
Flexural Strength	6400-7000psi
Tensile Strength	3000-3500psi
Density	0.9g/cm ³ at 68F
Flash point	88F @ 1013hPa
Lower explosion limit	~1 vol%
Upper explosion limit	~6.1 vol%
Autoignition temperature	914F at 1013hPa
Molecular weight	104.15 g/mol
Freezing point	-23F
Boiling point	293F at 1013hPa
Water solubility	320 g/l
Vapor density / pressure	3.59 / 4.5mm of Hg @ 68F

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 **WARNING:** This product can expose you to chemicals including Styrene, CAS 100-42-5, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov

 **WARNING:** This product can expose you to chemicals including Styrene, CAS 100-42-5, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov



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