



High Impact Polystyrene (HIPS)

HIPS has good dimensional strength, balanced properties of impact strength and good heat resistance. HIPS can be easily machined and is relatively low cost and because of its good impact strength at low temperatures, it is typically used for home appliances, toys, and electrical components.

Technical Specification

Properties	ISO Test Method	Unit	Matt Sheet	Gloss Capping
Density	ISO 1183	G/cm ³	1.05	1.05
Izod Impact Strength(notched)	ISO 180	J/m	100	-
Flexural Strength	ISO 178	Mpa	42	90
Tensile Strength	ISO 527	Mpa	26	-
Falling dart impact Strength (4.0mm).	ISO 6603 -1	J	16	16
Vicat Softening Temperature	ISO 306A	°C	95	92
Heat Deflection Temperature	ISO 75a	°C	81	76
Flammability Rating	UL94	-	HB	HB

Material Safety Data Sheet

Physical Properties

Nature of material - solid,
Appearance - sheet smooth or embossed.
Odour - characteristic.
Insoluble in water.

Physical form - flat sheet.
Molecular weight - variable.
Melting point 80°C.
Specific gravity 1.05.

Fire and Explosion data: Auto ignition temp. - 450°C, Flash point - 350°C. Fire and explosion hazards - Formation of toxic fumes & styrene & butadiene monomer in trace quantities.

Ingredients: Pigments (non hazardous) 4% max, Additives (non hazardous) 10% max, Graft polymer of styrene on a dienic unsaturated rubber CAS #009003-55-8 90%

Health Effects Data: Effects of inhalation; fumes from thermal decomposition and dust generated from machining may cause temporary breathing difficulties. Effects of ingestion - non toxic. Eye contact; Fumes or dust may cause irritation. Skin contact; hot material may cause burns.

First Aid: First aid for inhalation; remove victim to fresh air, seek medical attention if symptoms persist. First Aid for ingestion; seek medical attention if symptoms develop. First Aid for eye contact- flush eye with water. First Aid for skin contact- cool burns with water, seek medical attention for removal of molten material.

Protective Clothing/ Control Measures: Respiratory protection; Dust masks should be available. Eye protection - use safety glasses. Thermal gloves and protective clothing should be worn. Ventilation requirements - good local and adequate general ventilation should be ensured.

Emergency Procedures: Spillage; lift spillage mechanically. **Waste Disposal:** Controlled waste; No. Preferred disposal method - incineration or sanitary landfill, regarding local legal requirements. **Ecological Hazards:** Water hazard; no ecological hazard. Land hazard - no hazard. **Transport:** Special requirements- none. Labelling - (not dangerous).

The data are typical values and are not intended to represent specifications. Their aim is to guide the user towards a material choice. All statements, technical information and recommendation in this product data sheet are presented in good faith, based upon test believed to be reliable and practical experience. However, Bay Plastics Ltd cannot guarantee the accuracy or completeness of this information, and, it is the buyer responsibility to determine the suitability of products in any given application. Therefore no liability whatsoever shall attach to Bay Plastics Ltd for any infringement of the rights owned or controlled by a third party in intellectual, industrial or other property by reason of application, processing or use of the aforementioned information or products by the buyer.