



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	Base	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 ²	ISO 6603-1	J	16	16
Vicat Softening Temperature	ISO 306a	°C	95	92
Heat Deflection Temperature	ISO 75a	°C	81	76
Flammability Rating	UL 94	-	HB	HB

¹Property evaluations on injection moulded unpigmented material. ²4.0mm unpigmented extruded sheet. ³Density values vary with pigmentation.

Acrylic Capped ABS Sheet Material Safety Data Sheet

Physical Properties

- Nature of material – solid
- Physical form - flat sheet
- Appearance - sheet smooth or embossed.
- Molecular weight - variable.
- Odour - characteristic.
- Melting point 80°C.
- Insoluble in water.

Fire & 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.

Emergency Procedures

Spillage; lift spillage mechanically.

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.

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 recommendations in this product datasheet are presented in good faith, based upon tests believed to be reliable and practical experience. However, Bay Plastics Ltd cannot guarantee accuracy or completeness of this information, and it is the buyer's 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 products by the buyer.

Bay Plastics Ltd, Unit H1 High Flatworth, Tyne Tunnel Trading Estate, North Shields, Tyne & Wear, NE29 7UZ

Tel: 0191 2580777

Fax: 0191 2581010

Email: sales@bayplastics.co.uk

www.bayplastics.co.uk

www.plasticstockist.com