

HIPS High Impact Polystyrene

- Multi-layer sheet product made from High Impact Polystyrene (HIPS) co-extruded with General Purpose Polystyrene (GPPS), with a glossy surface aspect.
- one side protective film on glossy surface

PHYSICAL PROPERTIES	VALUE	UNIT	STANDARD	TEST METHOD
· Density*	1.06	g/cm ³	ISO 1183	-
· Tensile Modulus	1500	Mpa	ISO 527	23°C
· Yield stress	16	Mpa	ISO 527	23°C
· Elongation at yield	2	%	ISO 527	23°C
· Charpy (notched)	≥ 7	kJ/m ²	ISO 179	23°C, 1eA
· Charpy (notched)		kJ/m ²	ISO 179	-30°C, 1eA
· Charpy (un-notched)	-	-	-	-
· Charpy (un-notched)	-	-	-	-
THERMAL PROPERTIES				
VICAT softening point	90	°C	ISO 306	B/50
HDT-A	78	°C	ISO 75	A 1.8Mpa un - annealed
UV STABILISATION				
UV STABILISATION	Optional	-	-	According to customer requirement
BURNING BEHAVIOUR				
BURNING RATE **	-	-	-	-
Flammability Rating				
Flammability Rating UL**	HB**	-	UL94	
SCRATCH SURFACE				
MISCELLANEOUS				
Mould Shrinkage	0.5 - 0.7	%		
Thermoforming Temperature	180 - 210	°C		

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Unless otherwise stated, products are tested at a typical thickness of 4mm

1 The impact values stated indicate the range that this grade meets and depends on thickness of the sheet, plus actual material grades selected in each layer for every customer's project – typically customised. Mechanical suitability for each formulation should be evaluated based on the material delivered.

* The density quoted should only be used as a guide. This value can change depending upon the type and quantity of pigments or additives used.

** Fire behaviour values given by raw material supplier or by indicative test on raw material. Not intended as a specification.



SUPPLEMENTAL INFORMATION

Chemical Contact and cleaning

Reagent	Chemical resistance	Reagent	Chemical resistance
Acetone	Poor	Chloroform	Poor
Acid – (Weak)	Very Good	Citric Acid Solution	Good
Acid – (Strong)	Poor	Common Salt	Excellent
Apple Juice	Very Good	Detergents	Good
Beef Fat	Very Good	Diary Products	Good
Butter	Good	Diesel	Poor
Base (Weak)	Excellent	Ethyl Alcohol	Good
Base (Strong)	Poor	Fertilisers	Good
Carrot Juice	Excellent	Petrol	Poor

Chemical resistance is influenced by many factors, including concentration, temperature, exposure time and material stress. Therefore the data should only be used as a guide.

Most common mild soaps or detergents dissolved in warm water can be used to effectively clean general dirt and surface contaminants, but in all cases should be objectively tested. Abrasive products will damage the surface.

Storage and Drying

Long storage times in humid conditions may require a product to be dried, e.g. 80oC for 2 hours +1hr per additional mm of thickness. Space must be left between sheets to allow correct drying.

Dimensional Tolerances

Standard tolerances are subject to the local standard tolerance set. Extra tolerance requirements may be possible on request and by special agreement

Product Modification

Product code nomenclature takes in to account selected primary features of a product. The suffix may indicate a primary additional functionality, however, further multiple modifications are almost always possible and may be agreed upon and specified prior to our technical and commercial offer. Such enhancements are a normal part of our service capability and they do not affect the general characteristics listed in technical datasheets.

Disclaimer:

Suitability for use - producer sells thermoplastic sheet and monofilament products. The above information describes the basic features of our products.

However, these are largely influenced by their specific application, the application environment, final processing and the customer's intended usage. We recommend that in each case the suitability of our products for the intended usage is thoroughly listed and evaluated. We do not give any warranty or guarantee for any particular quality required by a customer or for the usability of our products in any particular customer environment. Producer will under no circumstance be liable for wear and tear, for damages resulting from disregard of product instructions – including those contained in this technical data sheet – operating instructions, disregard of other instructions, misuse, alteration or unauthorised repairs or processing. All deliveries shall be subject to the Terms and Conditions of the Seller.

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