epsotech™ Mirror 5195
Product Datasheet

SB/HK
Version 1 - 27/01/2012

Description
epsotech's High Impact Polystyrene (HIPS) is a general-purpose opaque material that has a good balance of stiffness and toughness. It has good impact strength and is an excellent all-purpose material. The epsotech Mirror 5195 is laminated with a metallic film of PES to give a mirror effect finish for the POS and luxury markets.

Applications
Cosmetic and luxury applications. Advertising, furniture, shop fitting and sanitary market.

Key Features

Certification/Approvals
The following approvals are available (depending on colour) on request:
ROHS: European Legislation 2002/95/EC.

Printing
It isn't designed for printing. Please contact our sales department if printing is required.

Thermoforming
Limited thermoforming ability.

Conversion
Gluing: Can be done with either hot-melt or solvent-based glue.
Welding: Thermal, Ultrasonic and Hot Gas.

Physical properties

Properties	Unit	Standard	Method	Value
Density #	g/cm^3	ISO1183	-	1.06
Tensile Stress at Break	MPa	ISO 527	50 mm/min	16
Elongation at Break	%	ISO 527	50 mm/min	>35
Tensile Modulus	MPa	ISO 527	50 mm/min	1500
Flexural Strength	MPa	ISO 178	2 mm/min	42
Charpy Notched Impact Strength	kJ/m^2	ISO 179	1eA at 23°C	≥7
Vicat Softening Point	°C	ISO 306	B50/oil	90
Heat Distortion Temperature	°C	ISO 75	HDT/A 1.8MPa	78

#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.

Product Availability

Colour
Silver mirror and silver brushed gold effects. Other colours on request.

Finish
Mirror finish with a natural matt on opposite side.

Thickness
1.0 mm to 4.0 mm.

Sheet Size Specifications

Gauge	Width	
	Minimum	Maximum
1.0 mm to 4.0 mm	350	1220

NB: available sizes may vary depending on gauge, colours, embosses and order size, please ask confirmation to sales department.

Additional Information

Thermoforming

Although it is feasible to thermoform the mirror effect it is not recommended for this process as the surface become matt and distorts. Most of the heat should be put into the back of the sheet, and depth of draw kept to a minimum.

UV Resistance

In outdoor or strong UV light conditions, HIPS will discolour and become brittle in a matter of months. For UV resistance grades please refer to the relevant technical data sheet or contact the Sales Office.

Cleaning and Maintenance

Typical detergents and soaps dissolved in warm water can be used to effectively clean surface contamination from the surface.

Chemical Resistance

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

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

epsotech Germany GmbH
Im Reinfeld 2
52428 Julich-Kirchberg
Germany
Phone: +49 (0) 2461 64 0
www.epsotech.com