

Technical datasheet for: epsotech PS HE1

Overview and Structure

epsotech PS HE1 NC is a multi-layer product made from High Impact Polystyrene (HIPS) with further impact enhancement, with a soft-feel elastomer top layer.

Typical Physical Properties

Property	Value	Unit	Standard	Test Method
GENERAL PROPERTIES:				
Density*	1.05	g/cm ³	ISO 1183	-
MECHANICAL PROPERTIES:				
Tensile Modulus	≥1200	MPa	ISO 527	23°C
Yield stress	20	MPa	ISO 527	23°C
Elongation at yield	-	%	ISO 527	23°C
Charpy (notched)	15	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	85	°C	ISO 306	A/50
HDT-A	81	°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	-	-

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

Chemical resistance is influenced by many factors, including concentration, temperature, exposure time and material stress. There will be a difference between the top and bottom layer, therefore each application should be evaluated for suitability.

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. 80°C 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:

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