

## Technical datasheet for: epsotech AB AM1 E8

### Overview and Structure

epsotech AB AM1 E8 is a single or multi-layer product made from ABS, with a matt surface aspect. This product meets the requirements of ECE R118.03 annex 6, 7, 8. Annex 8 is fulfilled from 1.5mm to 5mm as per the following validation:

**TUV test report reference: 193XS0078-00**

### Typical Physical Properties

Property	Value	Unit	Standard	Test Method
<b>GENERAL PROPERTIES:</b>				
Density*	1.12	g/cm3	ISO 1183	
<b>MECHANICAL PROPERTIES:</b>				
Tensile Modulus	1829	MPa	ISO 527	23°C
Yield Stress	30	MPa	ISO 527	23°C
Elongation At Yield	3.4	%	ISO 527	23°C
Yield At Break	28	MPa	ISO 527	23°C
Elongation At Break	30	%	ISO 527	23°C
Charpy (notched)	10	KJ/m <sup>2</sup>	ISO 179	23°C, 1eA
Charpy (un-notched)	88	KJ/m <sup>2</sup>	ISO 179	23°C, 1eU
<b>THERMAL PROPERTIES:</b>				
VICAT Softening Point	96	°C	ISO 306	A/50
HDT-A	86	°C	ISO 75	A 1.8 MPa un-annealed
CLTE	70	x10 <sup>-6</sup> /K	ISO 11359-2	-
Melting Behaviour	Pass	-	ECE R118 Annex 7	TUV report reference: 193XS0078-00; 1.5mm, 5mm
<b>UV STABILISATION:</b>				
UV Stabilisation	Optional	-	-	According to customer requirement
<b>BURNING BEHAVIOUR:</b>				
Burning Rate	Pass	-	ECE R118 Annex 6, 8	TUV report reference: 193XS0078-00; 1.5mm, 5mm
Flammability Rating UL	-	-	-	
<b>SCRATCH/SURFACE:</b>				
<b>MISCELLANEOUS:</b>				
Mould Shrinkage	0.5 - 0.7	%	-	-
Thermoforming Temperature	180 – 210	°C	-	-

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

<sup>1</sup> 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	Not recommended		Brake Fluid	Not Recommended
Acid – (Weak)	Excellent		Butter	Excellent
Acid – (Strong)	Good		Coffee	Excellent
Alcohol	Good/Fair		Detergent	Excellent
Anti-freeze	Excellent		Diesel	Good
Base (Weak)	Excellent		Foodstuffs	Good
Base (Strong)	Good		Lubricating Oil	Very Good
Battery Acid	Good		Petrol	Good

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. 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.

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