

Technical datasheet for: epsotech PV RA1 AA

Overview and Structure

epsotech PV RA1 AA is a single layer PVC/ABS alloy engineered especially formulated for aerospace applications requiring conformance to JAR25.853 (a) App F Part 1.

Typical Physical Properties

Property	Value	Unit	Standard	Test Method
GENERAL PROPERTIES:				
Density*	1.24	g/cm3	ISO 1183	-
MECHANICAL PROPERTIES:				
Tensile Modulus	-	MPa	ISO 527	23°C 1mm/min
Yield stress	35	MPa	ISO 527	23°C 50mm/min
Elongation at Yield	13.7	%	ISO 527	23°C 50mm/min
Elongation at Break	-	%	ISO 527	23°C 50mm/min
Drop Weight Impact	70	J	ISO 6603-1	A 23°C
THERMAL PROPERTIES:				
VICAT softening Point	75	°C	ISO 306	A/50
HDT	60	-	ISO 75	A, 1.8 MPa
BURNING BEHAVIOUR:				
Burning Rate				
Fire Behaviour	>1.2 mm		JAR25.853 (a) App F Part 1	(a, 1, ii)
Fire Behaviour	>1.7 mm		JAR25.853 (a) App F Part 1	(a, 1, i)
Flammability Rating	-	-	-	-
SURFACE/VOLUME:				
	-	-	-	-
	-	-	-	-
MISCELLANEOUS:				
Mould Shrinkage	-	%	-	-
Thermoforming Temperature	150 - 185	°C	-	-

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

* 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.

Supplemental Information

Chemical Contact and cleaning

Reagent	Chemical resistance		Reagent	Chemical resistance
Acetone	Not recommended		Brake Fluid	Not recommended
Acid – (Weak)	Good		Butter	Good
Acid – (Strong)	Good		Coffee	Excellent
Alcohol	Good		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

If sheet is stored in humid conditions for long periods then it should be dried before thermoforming, ideally at 70°C for approximately 2 hours, plus an additional hour for every 1 mm thickness. It is essential that enough space be left between the sheets (20-30mm) to allow correct drying. The time lapse between drying and forming should be minimised in order to save energy and reduce heating times. If sheets are left to stand at room temperature for a long period of time they may need to be re-dried.

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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Edition 1, September 2019

Published by Epsotech Holding GmbH, Im Reinfeld 2, Jülich Kirchberg, 52428 Germany