EN

Technical Data Sheet

Purblock

PB 720

Machinable Board

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Product description

- Polyurethane foam board
- Easy machinable
- Density 720 kg/m^3
- Low water absorption
- Good compression resistance
- Low resistance to U.V.
- Available sizes:
  1500 mm x 500 mm x 100 mm = 75 dm^3
  1500 mm x 500 mm x 75 mm = 56,25 dm^3
  1500 mm x 500 mm x 50 mm = 37,5 dm^3

Areas of application

- CNC style models
- Master models
- Foundry models
- Shoe models

Processing methods

Manual and wood working CNC machine is recommended. Chemically stable, can be coated with polyester resin or solvent based resin. Boards has parallel sides to ease bonding. Boards can be bonded with fast casting polyurethane PC 26/G 226 or PC 39/G 226 filled with hollow microsphere EF 18 T or EF 35 P.

Curing/Post-curing

Post-curing is not required.

Storage and stability

The PU board is a cured and chemically stable material. Boards must be stored horizontally in a cool and dry place, far from fire, sparks, and ignition sources. Do not expose to sun. Exposure to sun may slightly modify the color but mechanical properties will not be affected.

Handling precautions

Refer to the safety data sheet and comply with regulations relating to industrial health and waste disposal.

Typical product properties

Properties	Conditions	Test Method	Value	M/U
Colour		--	Light brown	
Density	25 °C	IO-10-77	700 ÷ 740	Kg/m³
Hardness	23 °C	IO-10-58 (ASTM D 2240)	65 ÷ 70	Shore D/15
	60 °C		65 ÷ 70	Shore D/15
Glass Transition (Tg)		IO-10-69 (ASTM D 3418)	75 ÷ 80	°C
Linear thermal exp. (Tg -10 °C)		IO-10-71 (ASTM E 831)	60 ÷ 65	ppm/°C
Linear thermal exp. (Tg +10 °C)		IO-10-71 (ASTM E 831)	nd	ppm/°C
Max recommended operating temperature		(***)	60	°C
Flexural strength	25 °C	IO-10-65 (DIN 53452)	30 ÷ 35	MN/m²
Strain at maximum stress	25 °C	IO-10-65 (DIN 53452)	3,5 ÷ 4,0	%
Strain at break	25 °C	IO-10-65 (DIN 53452)	3,5 ÷ 4,0	%
Flexural elastic modulus	25 °C	IO-10-64 (DIN 53457)	1100 ÷ 1300	MN/m²
Tensile strength	25 °C	IO-10-62 (DIN 53455)	nd	MN/m²
Nominal strain at break	25 °C	IO-10-62 (DIN 53455)	nd	%
Compressive strength	25 °C	IO-10-72 (ASTM D 695)	20 ÷ 25	MN/m²
Abrasion resistance (Taber Index)	25 °C	IO-10-85 (ASTM D 4060)	1000 ÷ 1100	mm³

IO-00-00 = Elantas Europe internal test method. The correspondent international method is indicated whenever possible; nd = not determined; na = not applicable; RT = TA = laboratory room temperature (23±2°C); conversion units: 1 mPas = 1 cPs 1MN/m2 = 10 kg/cm2 = 1 MPa

(*) for larger quantities pot life is shorter and exothermic peak increases; (**) the brackets mean optionality; (***) the maximum operating temperature is given on the basis of laboratory information available being it function of the curing conditions used and of the type of coupled materials. For further possible information see post-curing paragraph.

Proprietà tipiche del prodotto

Proprietà	Condizioni	Metodo	Valore	UM
Colore		--	Marrone chiaro	
Densità	25 °C	IO-10-77	700 ÷ 740	Kg/m^3
Durezza	23 °C	IO-10-58 (ASTM D2240)	65 ÷ 70	Shore D/15
Durezza	60 °C	IO-10-58 (ASTM D2240)	65 ÷ 70	Shore D/15
Transizione vetrosa (Tg)		IO-10-69 (ASTM D 3418)	75 ÷ 80	°C
Espansione termica lineare (Tg -10 °C)		IO-10-71 (ASTM E 831)	60 ÷ 65	ppm/°C
Espansione termica lineare (Tg +10 °C)		IO-10-71 (ASTM E 831)	nd	ppm/°C
Temperatura massima di esercizio consigliata		(***)	60	°C
Resistenza a flessione	25 °C	IO-10-65 (DIN 53452)	30 ÷ 35	MN/m^2
Deformazione massima	25 °C	IO-10-65 (DIN 53452)	3,5 ÷ 4,0	%
Deformazione a rottura	25 °C	IO-10-65 (DIN 53452)	3,5 ÷ 4,0	%
Modulo di elasticità a flessione	25 °C	IO-10-64 (DIN 53457)	1100 ÷ 1300	MN/m^2
Resistenza a trazione	25 °C	IO-10-62 (DIN 53455)	nd	MN/m^2
Allungamento a rottura	25 °C	IO-10-62 (DIN 53455)	nd	%
Resistenza a compressione	25 °C	IO-10-72 (ASTM D 695)	20 ÷ 25	MN/m^2
Resistenza all'abrasione (Indice di Taber)	25 °C	IO-10-85 (ASTM D 4060)	1000 ÷ 1100	mm^3