

Product Information

PURBLOCK PB 700

MACHINABLE BOARD

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Resin
PURBLOCK PB 700

Application:	Manufacturing of master models and foundry pattern.
Processing:	PURBLOCK PB 700 can be machined easily with chips formation. For the structural adhesion of PB 700 blocks the use of adhesive (PC 25/G 226 and PC 26/G 226 or AS 44/AW 09) is suggested upon suitable preparation of the surface.
Description:	PURBLOCK PB 700 is a cured material based on polyurethane modified resins with fine structure of the cells, good dimensional stability, high impact resistance. Machinable.
Instructions:	PURBLOCK PB 700 blocks are roughened on all surfaces to improve the bonding with the suggested adhesive (PC 25/G 226 and PC 26/G 226 or AS 44/AW 09). Before gluing, it is better to sand, to remove the powder and to clean the surface with a degreasing solvent such as acetone. Apply the adhesive on both surfaces to be bonded and apply an homogeneous pressure with the use of clamps or press. Release the pressure only when the first curing is complete (4-6 hours). Wait at least 1 day before carrying out the mechanical machining. Wait at least 1 week at room temperature before putting any mechanical stress (flexural, tensile or compressive) on the bonded areas.
Curing / Post-curing:	
Storage:	PURBLOCK PB 700 is chemically stable and must be stored horizontally in a cool, dry place and away from flames, sparkes and ignition sources. Avoid direct sun exposure. Light exposure without protection can slightly modify the surface colour, but the properties are not affected.
Handling precautions:	Refer to the data sheet and comply with regulations relating to industrial health and waste disposal.

Machinable block
PURBLOCK PB 700

TYPICAL SYSTEM CHARACTERISTICS

Processing data

Appearance			Solid	
Form			Block	
Colour			Light Brown	
Density	IO-10-51 (ASTM D 1475)	g/ml	0,650	0,700
Linear thermal expansion coefficient (20-60°C)	IO-10-71 (ASTM E 831)	10 ⁻⁶ /°C	55	60
Shore hardness (23°C)	IO-10-58 (ASTM D 2240)	D/15	67	72
Shore hardness (60°C)	IO-10-58 (ASTM D 2240)	D/15	67	72
Maximum operating temperature	*** °C		60	
Flexural strength	IO-10-65 (DIN 53452)	MN/m ²	21	25
Maximum strain	IO-10-65 (DIN 53452)	%	2,5	4,0
Strain at break	IO-10-65 (DIN 53452)	%	2,5	4,0
Flexural elastic modulus	IO-10-64 (DIN 53457)	MN/m ²	750	850
Compressive strength	IO-10-72 (ASTM D 695)	MN/m ²	15	20
Abrasion resistance (Taber Index)	IO-10-85 (ASTM D 4060)	mm ³	1000	1100
Glass transition temperature	IO-10-69 (ASTM D 3418)	°C	78	83

(***) each 10°C of temperature increase the linear thermal expansion changes of 0,60 mm/1000 mm.

Sales conditions: available sizes:

- 1500x500x100 mm = 75 dm³
- 1500x500x75 mm = 56,25 dm³
- 1500x500x50 mm = 37,5 dm³

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