

TECHNICAL DATA SHEET

PRODUCT: PU580-HIGH DENSITY POLYURETHANE MODEL BOARD

DESCRIPTION Easy Composites' PU580 is a 580kg/m³ density polyurethane model board offering very high dimensional stability, compressive strength and edge stability. It is ideally suited for use in the production of CNC machined master models for tool and mould construction and for use directly as a mould material in low pressure, low volume injection moulding, composite laminating and vacuum forming.

- USES**
- CNC machined patterns/masters.
 - Product prototypes/samples.
 - Vacuum forming tools for low volume production.
 - Moulds for low volume composite laminating.
 - Moulds for low pressure injection moulding.

Note: Polyurethane board cannot be used as a mould material for the production of pre-preg composite parts because at elevated temperatures polyurethane will inhibit the cure of epoxy resin. For low volume pre-preg tooling use epoxy tooling block.

- BENEFITS**
- Very high dimensional stability
 - High heat distortion temperature
 - Solvent resistant
 - Excellent machinability with low dust formation
 - High compressive strength and edge stability
 - Dense, fine surface which can be sealed to a full gloss

PROPERTY	STANDARD	UNIT	VALUE
Density	ISO 845	g/cm ³	0.58
Shore hardness	ISO 868	-	D 58
Flexural strength	ISO 178	MPa	18
E-Modulus	ISO 604	MPa	700
Compressive strength	ISO 178	MPa	17*
Impact resistance	ISO 179 Ue	kJ/m ²	5
Heat distortion temperature	ISO 75 B	°C	85
Linear thermal expansion coefficient αT	DIN 53 752	K-1	55 x 10 ⁻⁶

DIMENSIONS PU580 is available in 50mm and 100mm thicknesses at the following sizes:
 250mm x 250mm
 250mm x 500mm
 500mm x 500mm
 500mm x 1500mm

- PROCESSING**
- PU580 must be acclimatised to 18-25°C prior to machining.
 - PU580 can be worked by hand or machined by power tool, CNC router, milling machine and other high performance tools.
 - When bonding sheets together, surfaces should be free of dust, dirt and grease. Bonding should be made by polyurethane adhesive.

**STORAGE &
SHELF LIFE**

PU580 has an unlimited shelf-life when stored flat in dry conditions and normal temperatures.

Avoid high temperature variation of PU580 board and patterns, moulds and tools made from the board.

Our technical advice, whether verbal, or in writing is given in good faith, but without warranty - this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by Easy Composites Ltd as to their suitability for the intended processes and uses.