EPBOARD 0700HT
Epoxy Modeling Board

APPLICATIONS

EPBOARD 0700HT is a high-temperature resistant epoxy modeling board, suitable for master model making in the prepreg autoclave mold manufacturing process. It can also be used for vacuum forming molds or directly for small-batch composite component molds.

FEATURES

- High dimensional stability
- Good toughness, excellent edge stability
- High temperature resistance
- Low density
- High surface quality

PHYSICAL PROPERTY

Product	EPBOARD 0700HT
Color	Dark Blue
Density	0.72-0.78 g/cm^3

MECHANICAL PROPERTY

Test Item	Test Method	EPBOARD 0700HT
Tg/℃	ISO 11357:2002(DSC)	≥150
Hardness (25℃)	ISO 868：1985	≥72D
CTE	ISO 11359-2:1999	≤49*10^{-6}K^{-1}
Flexural Modulus /MPa	ISO 178 :2001	≥1800
Flexural Strength/MPa	ISO 178 :2001	≥38
Compressive Strength/MPa	ISO 604: 2002	≥53

*Curing Condition: The above data is based on test results after post-curing at 65℃ 7h+100℃ 1h+130℃ 1h+160℃ 8h

PROCESSING GUIDELINES:

Bonding of boards:

1. Cut, prepare and dry assemble blocks.
2. Both surfaces of the joint should be sanded with 320 grit paper.
3. Blow off the dust with compressed air and then use a suitable solvent such as acetone to remove any contaminants from the surfaces to be bonded.
4. Allow any residual solvent to evaporate before bonding.
5. Apply around 600 gram epoxy adhesive evenly across both surfaces of the joint with a castellated spreader.
6. Assembly the two wet surfaces and apply an even amount of pressure until the adhesive starts to expel from the joint. Remove the excess adhesive and check the joint for uniform thickness and that it does not exceed 1mm.
7. Boards should be held in position by light clamping or placing a weighted object over the entire top surface of the stack to ensure equal pressure throughout the board.
8. Always allow adequate time for the adhesive curing to further machining.
9. A post cure is recommended in order to achieve the systems maximum thermal characteristics. It is recommended to cool the part to room temperature in autoclave at the decrease temperature of no more than 20℃ per hour. This will prevent thermal shock from occurring to the board and the adhesive, which will result in poor bond and stress cracking in the board.

Supporting:

The tooling board should be adequately supported to avoid any excessive gravity induced stresses. For large patterns it is recommended that a steel support frame is used to minimize deflections and ease handling. Use one of the recommended adhesives for attaching back up or framing structures to the tooling board. Caution should be taken when making mechanical attachments to higher temperature boards as variations in coefficients of thermal expansion may cause warping or micro cracking when subjected to heating and cooling.

AVAILABLE BOARD DIMENTIONS

1500*500*50mm
1500*500*75mm
1500*500*100mm

HANDLING PRECAUSIONS:

It should be processed at well-ventilated room; avoid to contact with skin during machining process; wear gloves, mask, safety glass and protective clothing.
For further information, please consult material safety data sheet.

NOTE:

The data above is tested at specific conditions. Processing procedure and conditions might vary in practical applications, therefore it is recommended to carry out tests where necessary before using the product, and to ensure the product could meet the actual requirement. We at EPTEK guarantee that our products meet our highest quality management regulations.