



BCC PRODUCTS, INC.

BLEHM PLASTICS

FAST CAST – EPOXIES – ADHESIVES - POLYSULFIDES - URETHANES – POLYESTER PASTES – TOOLING BOARDS – RELEASE AGENTS – SILICONES

MODEL BOARD

(MACHINEABLE)

MB2001

MB2001 is a general purpose light weight urethane board engineered specifically to meet the tooling requirements of a wide range of applications for the automotive/aerospace, prototype, foundry, and architectural industries. MB2001 is an easy to machine, simulated wood-like product (free or grain) that is dimensionally stable and exhibits unsurpassed woodworking properties. Some of its outstanding performance features are listed below

Outstanding Features

- * Excellent machinability
- * Low dust emission
- * No shrinkage
- * Low moisture absorption
- * Excellent surface detail reproduction
- * No grain
- * Excellent surface finish and edge definition
- * Easily paintable and hand carvable

Uses

- * Proofing intricate CNC designs
- * Numerous tooling aids
- * Master models (automotive/aerospace)
- * Various prototypes
- * Architectural models
- * Foundry applications
- * Bases for Die models

Physical Properties

Density (lbs/ft ³ ; gms/cm ³)	46.5 (0.74)
Color:	Mahogany (Brown)
Hardness (Shore D)	68
Tensile Strength (psi)	3,800
Flexural Strength (psi)	5,150
Flexural Modulus (psi)	154,200
Heat Distortion Temperature (EF)	172
Impact Strength (IZOD)	1.92
Coefficient of Thermal Expansion (in./in./EF)	4.68 x 10 ⁻⁵

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MB 2001

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Availability

For convenience, MB2001 is shipped pre-planed (top and bottom surfaces) for preparation in gluing assembled pieces.

Available sizes:	2" x 16" x 60"	1" x 24" x 60"
	3" x 16" x 60"	2" x 24" x 60"
	4" x 16" x 60"	3" x 24" x 60"
		4" x 24" x 60"
		6" x 24" x 60"

Construction Hints

1. In order to achieve the required thickness for models and patterns with heights greater than two inches it is necessary to cut (saw) MB2001 lengthwise into as many sections needed for your model.
2. Apply BC 5003 Epoxy Laminating System or DP-11-88 Polyurethane Adhesive to each surface to be mated. Clamp with minimal pressure and allow curing overnight at room temperature. Excess clamping pressure can cause surface defects and stress upon the completed model.
3. The glued MB2001 assembly can now be bonded to a chosen base plate using BC 5003 Laminating System and fiberglass cloth. Suggested base plate materials are: Impreg Wood, metal tubing, fabricated honeycomb panel or MB2001 Model Board.
4. MB2001 is now ready to be carved or machined. Standard woodworking tools and/or high speed steel cutters are recommended for contouring to required size.
5. Finish with pattern coating or sanding lacquer sealer.
6. Repairing of over cuts and redesigns can be achieved with BC4578 model board filler.

Machining/CNC Milling

(Recommendations)

Roughing Speed 1500-2,000 RPM	Feed 80-100 IPM	Cutters: 2 or 4 flute drill bit
Finishing Speed 10,000-12,000 RPM	Feed 150-200 IPM	Cutters: 4 flute drill bit

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