



MODEL BOARD

Model Board (Resin 100) Datasheet

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DESCRIPTION & APPLICATION:

RESIN 100 is a rigid, High Density Urethane, (HDU), Tooling/Modeling board designed for Prototype Machining, Water Jet Cutting, Pattern Making, Thermoforming, Prepreg Composite Layup Tooling Vacuum Form Tooling, Tool Path Proofing, Lost Wax Casting Masters, Master Model Making, Artistic Carving Blocks, Indoor and Outdoor Signage. RESIN 100 is made in the USA. RESIN 100 is the model and jewelry maker's choice for small boards.

RESIN 100 does not contain CFCs or VOCs. See the MSDS on our website. RESIN 100 can be machined with HSS bits or cut with any standard cutting Tool. RESIN 100 density is 64 lbs. per cubic foot. Stock block sizes are 5" x 12", 12" x 12", 12" x 24", 24" x 24" & 24" x 36" in thicknesses from 1.65" to 4". Custom shapes, disks, cones, rectangles, triangles, donuts, cubes etc. and sizes are available to ship typically within one week, most larger sizes will require a longer lead time.

A liquid patch repair kit of the same resin is available to change or repair this material making sanding the bond line a snap.

PHYSICAL PROPERTIES:

Density	ASTM D-1623	64 lbs. per cubic foot
Compressive Strength	ASTM D-1621	4,376 psi
Compressive Modulus	ASTM D-1621	128,784
Tensile Strength	ASTM D-1623	2,586 psi
Tensile Modulus	ASTM D-1623	238,000 psi
Shear Strength	ASTM C-273	3,025 psi
Shear Modulus	ASTM C-273	84,365 psi
Flexural Strength Method 1A	ASTM D-790	3,050 psi
Flexural Modulus Method 1 A	ASTM D-7900	194,789 psi
Hardness / Shore D	ASTM D-2240	64
Elongation		5.9%
Dimensional Stability	ASTM D-2126	1.2% max
Water Absorption	ASTM D-2842	0.03% by vol. after 96 hrs.
Closed Cell Content	ASTM D-2856	97%
"K" Value Insulation Factor	ASTM C-177	1.26
Impact Resistance	0°F 4.6 OZ. 1" Dia. 9'6" drop	No cracking observed
Freeze Thaw	ASTM D-2126, 25 cycles	No de-bonding or distortion occurred
Mold and Mildew Resistance	ASTM D-3273	Does not support growth
Dielectric Constant	ASTM D-1678	1.275
Maximum Service Temperature	Dry	200° F
Coefficient of Thermal Expansion (CTE)		25 X 10 ⁻⁶ ° F
Specific Heat @ 77° F	ASTM E-1269	221°F
Glass Transition	DMA/TMA	0.245
Flammability Tests:	FAR 25.853 Vertical Burn	Pass
	MIL P 26514 Burn Test	Pass
	ASTM D-1692-74 Burn Test	Pass
	ASTM D-635-06 Burn Test	Pass

Follow heat temperature ramping of 1° F up per minute and 2° F down per minute. Resin 100 is a very smooth non-abrasive board, machine sand and paint. Use carbide or cobalt helix cutters (1600-1100 RPM @ 100 I.P.M). Note this material can burn, store shaving in a fire safe container. Some small pinholes may be present.

Questions? Please contact Goldenwest Manufacturing, Inc.
(530) 272-1133 or email sales@goldenwestmfg.com
www.goldenwestmfg.com

WARRANTY: All recommendations for product use have been derived from experience and test data believed to be reliable. We warrant and guarantee the uniformity of our products within manufacturing tolerance. However, since the use of our products is beyond our direct control, they are furnished upon the condition that each party shall make his/her own tests to determine their suitability for his/her particular purpose. Except as stated herein, Goldenwest Manufacturing Inc. makes no warranty or guarantee, expressed or implied, and disclaims all responsibility for results obtained, nor assumes any liability for any damages, whether arising out of negligence or breach of guarantee and is hereby expressly limited to replacement of product only. For additional information on product handling, please refer to Resin 100 MSDS.