NC PROOFBOARD®

Density-8 (D-8) Datasheet

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DESCRIPTION & APPLICATION:

D-8 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. NC Proofboard is made in the USA.

D-8 is formulated with eco-friendly, "Green" urethane components. The new NC Proofboard material has a Certified "Carbon Foot Print" of 3 to 1 and a Certified "Rapidly Renewable Green Resource Content" of 23.9%. This means each 3"x 4'x8' sheet of D-20 saves 38.5 pounds of plastic material which assists meeting LEED requirements for obtaining USGBC and ICC 700 building credits.

NC Proofboard **does not contain**: **CFCs or VOCs.** See MSDS for details.

NC Proofboard comes in standard sizes of 20"x60", 24"x60", 30"x80", 48"x60" 4'x8', 4'x10', 5'x8' and 5'x10'. Thickness ranges from 1/2" to 24". Custom bonded blocks available in any size. NC Proofboard standard densities are 4, 6, 8, 10, 12, 15, 18, 20, 30, 34, 40, 48, 60, 70, & 75 pcf. Other densities available.

NC Proofboard is **non-abrasive**, can be machined with HSS bits or cut with any standard cutting tool. NC Proofboard's tight cell structure allows adjusting spindle speed & table feed to produce either chips or dust as desired. NC Proofboard does not outgas or affect prepreg resin cure.

NC Proofboard can be bonded to itself or most other substrates using one part urethane or, a two part, epoxy adhesive available from Goldenwest Manufacturing, Inc.

PHYSICAL PROPERTIES:

Density	ASTM D-1623	8 lbs./Cubic Foot
Compressive Strength	ASTM D-1621	133 psi
Compressive Modulus	ASTM D-1621	4,143 psi
Tensile Strength	ASTM D-1623	122 psi
Tensile Modulus	ASTM D-1623	1,498 psi
Shear Strength	ASTM C-273	67 psi
Shear Modulus	ASTM C-273	984 psi
Flexural Strength Method 1A	ASTM D-790	160 psi
Flexural Modulus Method 1 A	ASTM D-790	6,842 psi
Hardness - Shore D	ASTM D-2240	7
Elongation		8.3%
Dimensional Stability	ASTM D-2126	1.2% Max.
Water Absorption	ASTM D-2842	0.01% by Vol. after 96 hrs.
Closed Cell Content	ASTM D-2856	97%
"K" Value Insulation Factor	ASTM C-177	0.318
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	1.3
Maximum Service Temperature	Dry	200˚ F
Coefficient of Thermal Expansion (CTE)		22 X 10^{-6} ˚F
Glass Transition	DMA/TMA	228˚F
Specific Heat @ 77˚F	ASTM E-1269	0.235
Flammability Tests:	FAR 25.853 Vertical Burn	Pass
	MIL P 26514 Burn Test	Pass
	ASTM D-1692-74 Burn Test	Pass
	ASTM D635-06 Burn Test	Pass

Follow heat temperature ramping of 1˚F up per minute & 2˚F down per minute.

Questions? Please contact Goldenwest Manufacturing, Inc.

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Aug 2013