

REN SHAPE[®] 5003

REN[®] Modeling & Styling Boards

EPOXY MODELING BOARD

Ren Shape 5003 is a low-density epoxy board designed for use up to 140°F (60°C) and is well suited for producing styling and master models and low-temperature curing prepreg tools. The material is easy to machine with hardened steel cutters or standard woodworking tools. It provides excellent dimensional stability and holds well-defined edges. Performance properties include good tensile strength of 2,900 psi and good compressive strength of 3,700 psi.

- ? Easy to machine
- ? Excellent room-temperature performance
- ? Excellent dimensional stability
- ? Outstanding hand carving results

Applications include temporary and throwaway master models, styling models and prototypes, visual models and other applications requiring fast machining and good model surfaces.

ACCESSORIES

Matched Adhesive

Ren-Weld[®] 103
or CG 1305 R/H

Repair Paste

RP 6426-1/DT 081 filler

TYPICAL PROPERTIES*

	<u>ASTM Method</u>	<u>Cure Value</u>
Color	Visual	Tan
Density, lb./ft ³ (g/cm ³)	D-792	34 (0.54)
Hardness, Shore D	D-2240	60–64
Ultimate Flexural Strength, psi	D-790	3,400
Flexural Modulus, psi	D-790	188,000
Ultimate Tensile Strength, psi	D-638	2,900
Tg by DMA, E", °F(°C)	D-4065	182 (83)
Compressive Strength, 0.2% offset, psi	D-695	3,700
Compressive Modulus, psi	D-695	185,000
Coefficient of Thermal Expansion	D-3386	
	-22° to 86°F, in/in/°F	32 x 10 ⁻⁶
	-30° to 30°C, in/in/°C	58 x 10 ⁻⁶

* Tested @ 77°F (25°C) unless otherwise noted.

NOTE: These physical properties are reported as typical test values obtained by our test laboratory. If assistance is needed in establishing product specifications, please consult with our Product Management Department.

MACHINING

Roughing Speed

1,600 RPM

Roughing Feed

40 IPM

Finishing Speed

10,000 RPM

Finishing Feed

100 IPM

Cutters: Roughing - 1" Hog Ball End Mill 4-Flute HS Steel 8% Cobalt
Finishing - 5/8" Ball End Mill 2-Flute Carbide

Depth: Roughing - varied from 1/4" to 2-1/2" deep with a 40% stepover
Finishing - 1/8" deep leaving 0.002" scallop height

SAFETY: Do not use or handle this product until the Material Safety Data Sheet has been read and understood.

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