

**Advanced Materials****RenShape® 5025**

## LOW DENSITY BOARD

**DESCRIPTION :**

RenShape® 5025 board is a light green colored, syntactic polyurethane with a low density of approximately 15 lbs./ft<sup>3</sup>. The board is easy to machine and features a good surface finish. RenShape® 5025 board can be hand carved as well as CNC machined for the production of visual, styling and temporary master models architectural master models, prototypes. It is also well suited for CAD design verification. RenShape® 5025 board features benefits including:

<b>ADVANTAGES</b>	
	• Easy to hand-work and machine
	• Suitable for milling with fast cutting speeds
	• Non-abrasive
	• Good edge definition
	• Good dimensional stability

<b>ACCESSORIES</b>	<b>Matched Epoxy Adhesive</b>	<b>Polyurethane Repair Paste</b>
	Ren-Weld® 103 (long gel-time), Freeman Repro Ultra Light (faster)	Freeman Quick-fil

<b>TYPICAL PROPERTIES*</b>	<b>Test Method</b>	<b>Test Values</b>
Color	Visual	Light green
Density, lb./ft <sup>3</sup> (g/cm <sup>3</sup> )	ASTM D-792	15 (0.25)
Hardness, Shore D	ASTM D-2240	27
Heat Distortion Temperature, °F (°C)	ISO 175	176 (80)
Ultimate Tensile Strength, psi (MPa)	ASTM D-638	800 (5.5)
Compressive Strength, 0.2% offset, psi (MPa)	ASTM D-695	800 (5.5)
Coefficient of Thermal Expansion -22° to 86°F, in/in/°F -30° to 30°C, in/in/°C	ASTM D-3386	47 x 10 <sup>-6</sup> 85 x 10 <sup>-6</sup>

\* 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	Roughing Feed	Finishing Speed	Finishing Feed
	2,500 RPM	200 IPM (508cm/min)	15,000 RPM	200 IPM (508cm/min)

**Cutters :** **Roughing** 1 in. (2.5cm) Hog Ball End Mill 4-Flute HS Steel 8% cobalt  
**Finishing** 5/8 in (16mm) Ball End Mill 2-Flute Carbide  
**Depth** Roughing varies from 0.25 in. to 2.5 in. (6mm to 6.35cm) with a 40% stepover  
Finishing depth is 1/8 in. (3mm) leaving a 0.002 in. (0.05mm) scallop height

**These machining parameters are represented as starting points.** Cutter type and material, spindle speed, feed rate, machine power and rigidity all affect machining results. User must determine the best parameters for specific situations.

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**STORAGE :**

RenShape® 5025 board should be stored flat in original cartons in a dry place at temperatures between 36°F to 104°F (2°C to 40°C). Under these storage conditions, the shelf life is 10 years. The product should not be exposed to direct sunlight.

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Huntsman Advanced Materials Americas LLC maintains up-to-date Material Safety Data Sheets (MSDS) on all of its products. These sheets contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products. Users should review the latest MSDS to determine possible health hazards and appropriate precautions to implement prior to using this material.

**First Aid!**

Refer to MSDS as mentioned above.

**KEEP OUT OF REACH OF CHILDREN**

**FOR PROFESSIONAL**

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