

REN SHAPE[®] 460

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Prototype Tooling & Precision Modeling Board

REN Shape 460 is a moderate density precision modeling board that features a lower coefficient of thermal expansion to provide enhanced dimensional stability over a broader temperature range than other modeling boards. REN Shape 460 provides the same excellent definition and accuracy for which the REN Shape family of products is well known. Machinable with carbide cutters, REN Shape 460 features properties including:

- Ultra-fine Surface Finish
- Outstanding Resistance to Shrinkage and Warping
- Superior Reproduction of Intricate Detail

Typical Properties

Color	Light Brown
Density	48 lb/ft ³
Hardness	64 Shore D
Flexural Strength	3,700 psi
Flexural Modulus	185,000 psi
Compressive Strength	2,200 psi
Compressive Modulus	181,000 psi
Tensile Strength	1,800 psi
Glass Transition Temp	219°F
Coefficient of Thermal Expansion (-22° F to 86°F)	29.9 x 10 ⁻⁶ in/in /°F

Available Sizes

1"x 20"x 60"	3"x 20"x 60"
2"x 20"x 60"	4"x 20"x 60"
1"x 24"x 60"	3"x 24"x 60"
2"x 24"x 60"	4"x 24"x 60"

Accessories

REN -Weld 103 or RP 6465 Ultrafast for matched adhesives
TDT 177-113 R/H or REN Patch 440 for Repair Pastes

Applications

REN 460 applications may include temporary or throw away master models, styling and visual models, prototypes and prototype foundry patterns, vacuum form molds, architectural and automotive die models, tooling aids and fixtures, and other applications requiring fast machining and good model surfaces.

Machining

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% Steptover
 Finishing - 1/8" Deep leaving 0.002" scallop height

Roughing Speed 1,600 RPM Roughing Feed 40 IPM Finishing Speed 10,000 RPM Finishing Feed 100 IPM

Safety

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