



Machinable Board for Prototype Tooling & Assembly Fixtures

RenShape 472 is a polyurethane-based board designed for CNC machining of production grade checking and assembly fixtures. It may also be used in prototype thermoforming and vacuum forming tooling applications, providing excellent definition and dimensional stability at elevated temperatures. RenShape 472 is a moderate density, neutral-colored board with enhanced dimensional stability and excellent toughness. RenShape 472 features properties including:

- Ultra-fine Surface Finish
- High Flexural Strength
- Outstanding Resistance to Shrinkage and Warping
- Tough and Durable

Typical Properties

Color	Light Grey
Density	55 lb/ft ³
Hardness	81 Shore D
Flexural Strength	9,540 psi
Flexural Modulus	416,000 psi
Compressive Strength	10,900 psi
Compressive Modulus	460,000 psi
Tensile Strength	7,000 psi
Glass Transition Temp	248°F
Coefficient of Thermal Expansion (-22° F to 86°F)	25.8 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"

Accessories

REN -Weld 103 or RP 6465 Ultrafast for matched adhesives
RP 6426-1 R/H Polyurethane Repair Paste with DT081 Filler

Applications

REN 472 applications may include prototype thermoform and vacuum form molds, foundry patterns, and dimensionally stable tooling aids and fixtures.

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.