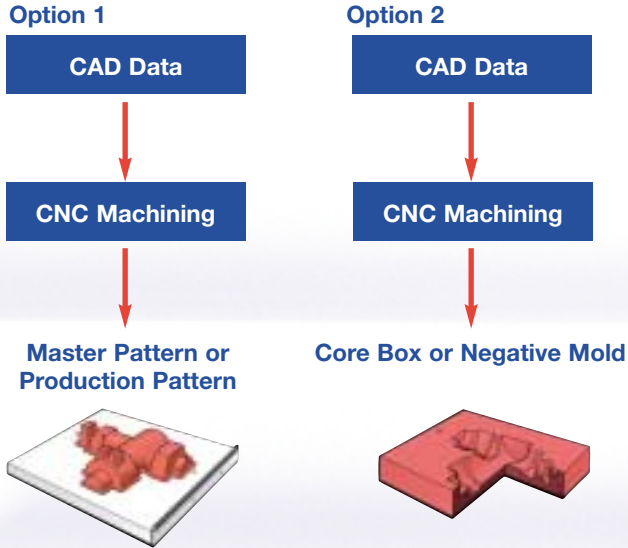


# Ren Foundry Products

## Machinable Boards for Milling Patterns, Core Boxes or Negative Molds

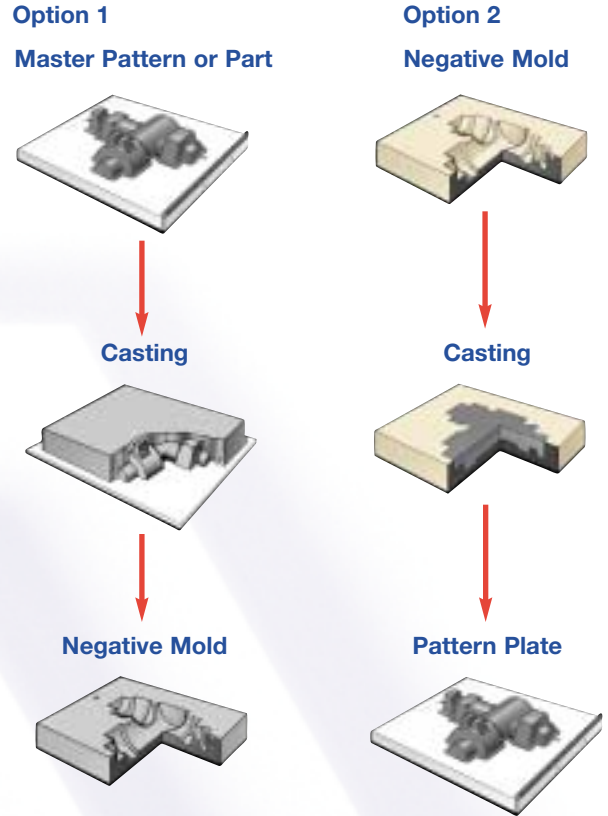


**Ren Shape 450** – A medium-density polyurethane board that holds tight tolerances, maintains outstanding dimensional stability even after exposure to temperature and humidity extremes, and holds solid, well-defined edges. It is ideal for precision master patterns, core models and production/low-volume foundry tooling.

**Ren Shape 460** – A higher density precision modeling board that offers excellent accuracy and superior edge definition.

**Ren Shape 5169** – A red, extremely tough, abrasion-resistant board with good compressive and tensile strengths as well as outstanding edge definition and dimensional stability. Well suited for machining foundry patterns, core boxes and tooling components for medium-run production.

## Fast-curing Polyurethanes for Casting Negative Molds or Patterns



**Pro-Cast® 20 R/H** – A low-viscosity, easy-to-pour polyurethane that sets in less than 10 minutes and can be demolded in 60 to 90 minutes. It exhibits low shrinkage, excellent detail reproduction and good strength for casting duplicate master patterns, negative molds, and patterns and core boxes up to four-inches thick\*.

**RP 132 R/H** – A tough, fast-curing polyurethane that gels in five to seven minutes and can be demolded in 60 to 90 minutes. The aluminum-colored system features higher compressive, flexural and tensile strengths than Pro-Cast 20 as well as a lower coefficient of thermal expansion. It is ideal for casting multiple negative molds, patterns and core boxes up to four-inches thick\*.

**RP 8250 R/H** – An easy-to-use polyurethane that resists settling to increase shop productivity and can be demolded in as little as 60 minutes. The system has a higher compressive strength than other fast-casting foundry polyurethanes and provides for the same good reproduction of detail. It is formulated for casting four-inch thick\*, durable, duplicate master patterns, negative molds and patterns.

\* Wood filler plugs can be used to increase maximum cast thickness, reduce shrinkage and improve pattern accuracy.

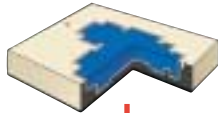
## Surface Coats/Backfills for Constructing Lightweight Negative Molds and Patterns

### Option 1

#### Negative Mold + Gel Coat and Coupling Layer



#### Backfilling

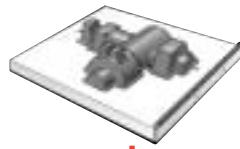


#### Pattern Plate



### Option 2

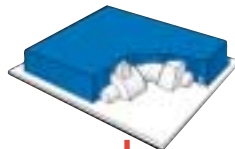
#### Master Pattern or Existing Production Pattern



#### Pattern + Gel Coat and Coupling Layer



#### Backfilling



#### Negative Mold



**RP 6411 R/H** – A highly abrasion resistant, aluminum-filled, brushable polyurethane surface coat that gels in 24 minutes and can be demolded after 18 hours at 77°F. It produces excellent surface detail and an extended pattern life. The surface coat provides good adhesion to Ren Professional paste and backfill for building lightweight patterns.

**RP 8024 R/H** – A universal surface coat with outstanding intercoat adhesion for 24 hours after reaching a tack-free stage. The system allows foundries to begin a large tool one afternoon and resume work the following morning without concern about delamination between mold/pattern layers. The epoxy gels in 25 minutes and can be demolded after 18 hours at 77°F. It is ideal for making lightweight negative molds with Ren Professional paste and backfill.

**RP 8169 R/H** – A glass fiber-reinforced epoxy paste that is applied behind the surface coat up to one-inch thick to produce a strong, lightweight negative mold or pattern. The paste is easy to apply even on projects with complex geometries and can be demolded after 18 hours at room temperature.

**RP 8281 R/H** – A low-density epoxy backfill, that can be demolded after 18 hours at 77°F, for making low-cost, lightweight negatives and patterns up to eight-inches thick.

## Surface Casting Materials for Casting Patterns over a Pre-made Core\*\*

### Negative Mold



### Installed Core



### Face Casting



### Pattern Plate



**RP 6444 R/H** – A tough, wear-resistant polyurethane that gels after 27 minutes and can be demolded in 24 hours. It offers good impact strength, tear strength and elongation. The material is formulated for producing durable polyurethane foundry patterns and core boxes and can be used for repairing metal production tooling. Three different color formulations available: amber (RP 6444 R/H); red (TDT 178-88R/RP 6444H); black (RP 6444R/TDT 178-87H). Maximum cast thickness is two inches.

**RP 8209 R/H** – An iron-oxide-filled, crystallization-resistant epoxy casting system that provides for excellent reproduction of detail and yields foundry patterns up to eight-inches thick with excellent compressive and flexural strengths. A slow hardener produces a 250-minute work life; the gel time for the medium hardener is 90 minutes. Demold time is 15 hours.

**RP 8269 R/H** – An aluminum-filled, aluminum-colored epoxy casting system that has a low viscosity for ease of use. A slow hardener provides for a work life of 180 minutes and the medium hardener has a 90-minute work life. Demold time is 24 hours. The system produces foundry patterns up to six-inches thick with outstanding compressive strength.

\*\* Core can be made from wood, plastic or metal.