



## MAKE YOUR OWN **BUTTER-BOARD®** with R1/BB PRE-MIX

**INTRODUCTION:** The **R1/BB PRE-MIX** was designed to produce **BUTTER-BOARD®** Machineable Plastic quickly, easily and with repeatable results. This filled, liquid system can be used to make your own Machineable Plastic, reproduce forgings, prototypes and thermoforming tools. The cured casting can be primed and painted.

**GENERAL INFORMATION:** The finished casting is non-abrasive when machined and results in mostly shavings instead of dust. The filler in the resin is also non-abrasive and does *not* stay in suspension. The pre-mixed filler will tend to float and must be mixed again before using. The mixture mixes and pours easily. Dispensing equipment can be used but continuous mixing and recirculation of each side is recommended to keep the resin/filler in suspension. You can cast up to 6" *thick* in one pour or multiple pours. Available in 10-gallon kits and 55-gallon drum kits. **R1/BB PRE-MIX** is superior to other casting systems and easier to use. The casting is odorless.

### EQUIPMENT & MATERIALS NEEDED:

Plastic mixing buckets	<b><u>Jiffy Mixer</u></b> or equal	Electric (or air powered) hand drill, variable speed up to 1700 rpm. or dispensing equipment set up for 50/50 volume mixture
<b><u>"SP" Mold Release</u></b> or paste wax	Duct tape	If you're using blending tanks for A & B they must have recirculation lines so that dispensed material is homogeneous
Furniture Clamps	Clay	3/4" thick particle board for making rectangle molds
Foam board or fiberglass insulation		<b><u>Molecular Sieves</u></b> for moisture contamination

**Note:** The bold underlined products mentioned are available from Goldenwest Manufacturing Inc.

### MIXING INSTRUCTIONS:

1. **Read the Material Safety Data Sheet.** Check the labels and instructions. Use in a well-ventilated area.
2. Do not use a paint shaker. Open lids and pre-stir each side until filler is back in solution. Use a different **Jiffy Mixer** for side A and for side B to avoid cross contamination. Some of the filler comes out of suspension so stirring will be necessary. Stir prior to using each time to insure a quality homogeneous blend. Store above 65°F. off of a cement floor to prevent heat loss. If the temperature goes below 65°F., raise the temperature and stir the material before using.
3. Before making any casting, make about a 1/2 cup test casting to check the gel time at your shop temperature. For a larger mass, the gel time will be faster. Time your mixing so that the **R1/BB PRE-MIX** can sit in the final mold for at least 60 seconds before it gels. This will allow for a more bubble free casting.
4. Make a box mold out of plywood or particle board with screws. The mold must be prepared watertight. Clay the inside seams or duct tape the outside seams to stop leaks. Use a mold release such as paste wax or our **"SP" Mold Release.** Have the furniture clamps in place. Thoroughly mix A & B together with a **Jiffy Mixer** and pour into the mold. After the casting is all done, insulate with fiberglass or foam boards to keep the casting from cooling too fast or unevenly. Keep the insulation in place until the part is cool to the touch, 18 hours minimum. This will help give you better dimensional stability. Design the mold so it stands upright so that the majority of the cast surface area will be covered with the particle board upright instead of lying down.
5. The ratio is 50/50 by volume. Mix **#709** for 1.5 to 2.0 minutes at 1700 RPM. Mix **#891** for 30 to 45 seconds at 1700 RPM. One large pour of a few hundred pounds can be poured at one time with a "mixing/pouring crew". Be sure the mold can hold all the liquid in one pour and everyone starts the mix at the same time.
6. Gel time using **#891** is 2 to 3 minutes. Gel time using **#709** is 3 to 4 minutes.

**NOTE:** THIS MATERIAL IS MOISTURE SENSITIVE. KEEP LIDS ON TIGHT. Moisture contamination shows up as air bubbles in the casting and/or slight foaming near the top. Moisture contamination can usually be controlled by adding 1/2 cup of our **Molecular Sieves** per 5 gals. of "B" side Polyol.

**NOTICE:** All measurements approximate, no guarantee of performance is given.

FOR INDUSTRIAL USE ONLY. KEEP OUT OF THE REACH OF CHILDREN. USE IN A WELL-VENTILATED AREA