

emdin | instructions



One investment that does it all

Cast any alloy by ring or ring-less technique.
 Cast pressable ceramic by fast burn out method.
 Make Maryland bridges. Use it as soldering investment.

Many millions of castings done around the world!

Physical Properties	
Liquid-to-powder ratio	24 to 100
Liquid dilution	See directions below
Working time (mins)	5 mins at 72F
Setting time (mins)	8 to 12 mins @ 72F
Setting expansion	1.8 % to 2.4%
Thermal expansion @ 700C	1.2 %

General Mixing Directions

Hand spatulate powder into liquid thoroughly, then mix under vacuum on low speed mixers (200 to 450 rpm) for 60 to 90 seconds. Always monitor the liquid and powder temperatures before mixing. Hold under vacuum for another 30 seconds before pouring into the casting ring.

If the material appears to be setting too fast reduce mixing time to as low as 30 to 45 seconds or cool the liquid to desired temperature as explained elsewhere.

ADJUSTING EXPANSION:

To INCREASE expansion: Use more liquid and less water. Keep the total amount of mixing liquid the same as in the chart.

If more expansion is needed even after using straight 100% liquid, increase the liquid to powder ratio and mix for less time, say 30 seconds mechanically under vacuum at low speed.

If still more expansion is needed order the high expansion GREEN liquid and follow the instructions for this liquid.

To DECREASE expansion: Use more water and less liquid. Do just the opposite of the technique for increasing expansion above.

(more)

Non-precious Alloys		
Powder	Liquid, ml	Water, ml
60g	12.0	2.5
90g	17.5	4.0
100g	19.5	4.5
160g	31.5	7.0
Noble & High Noble Alloys		
Powder	Liquid, ml	Water, ml
60g	9.5	5.0
90g	14.0	7.5
100g	15.5	8.5
160g	25.0	13.5
Type III gold alloys		
Powder	Liquid, ml	Water, ml
60g	7.5	7.0
90g	11.0	10.5
100g	12.0	12.0
160g	19.5	19.0

Fast 1-hour Burn-out:

After 20 to 30 minutes bench set place the mold directly in a preheated oven at 1400 degrees F. Hold at maximum temperature for about 20 minutes; raise temperature to casting temperature and cast

The mold can also be placed directly in a preheated oven at 900 degrees F. Raise temperature rapidly to desired mold temperature. Hold for about 20 minutes and cast.

Slow Burn-out:

After 20 to 30 minutes bench set place the mold directly in a cold oven. Use 2-stage burnout. First Raise temperature slowly at 7 to 10 degrees F per minute to 600 degrees F and hold for about 30 minutes. Finally raise the temperature rapidly to desired mold temperature. Hold for about 20 minutes and cast

Pressable ceramics too:

Pressable Ceramics can also be cast in STARVEST by SLOW or FAST burnout method. Just follow the same directions. The liquid dilution may have to be adjusted.

Use the ratio for High Noble alloys. Use fast burnout starting at 1200 degrees F.; hold for 20 minutes and then transfer the mold to Press oven and follow instructions for pressing the ceramics. You can also use the slow burnout if you prefer it.

FOR BEST RESULTS

The Average of the temperatures of the LIQUID and the POWDER should be 72 Degrees F.

If the POWDER temperature is TOO HIGH then the LIQUID temperature should be LOWERED so that the AVERAGE of the TWO is about 72 Degrees F.

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