

ECONOVEST®

JEWELRY INVESTMENT

FEBRUARY 2001

Weigh the investment powder and measure deionized water at a ratio of 38 to 40 parts water per 100 parts powder by weight (38 to 40 ml water per 100 gr. of investment).

Note: Colder mix water temperature will increase working time, while warmer temperatures will shorten working time. For best results, adjust water temperature to 75-85°F (24-29°C).

MIXING INSTRUCTIONS

1. Add the investment powder to the water.
2. Using a spatula, mix by hand until the powder is thoroughly wetted (about 30 seconds).
3. Using a mechanical mixer, mix on low speed for 1 minute, then on medium speed for 2 minutes.
4. Place the mixing bowl under a bell jar with a vacuum table pump down capacity of 29 inches mercury.
5. Vacuum the investment slurry in mixing bowl until it rises, the bubbles break, and it begins to boil vigorously. Continue to vacuum for one minute.
6. Pour the investment down along the inside of the flask allowing it to flow up, around and over the patterns, leaving a minimum 3/8" space at the sides and 1/2" at the top and bottom.
7. Place flask under vacuum and vacuum for 1 1/2 minutes. Apply slight vibration to vacuum table.

NOTE: For best results, the total cycle time of the investing process should be no longer than 9 minutes.

CAUTION: Small amounts of hard, set investment from previous investment mix may accelerate the set time, thus shortening the available working time.

8. Top off flask with investment if needed and allow to sit undisturbed for 2 hours.
9. Remove sprue base.
10. Load into burnout oven, sprue end down.
11. Follow general burnout cycle.

BURNOUT PROCEDURE

Follow the burnout cycle best suited for the size flask indicated on the burnout cycle chart.

For best results do not overload oven.



R&R
DENTSPLY

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BURNOUT CYCLES

6 HR. Cycle
(2 ½" x 2 ½" Flask)

2 Hours @ 300°F.
2 Hours @ 149°C.

1 Hour @ 700°F.
1 Hour @ 371°C.

2 Hours @ 1350°F.
2 Hours @ 732°C.

1 Hour Heat Soak
At Mold Casting
Temperature

8 HR. Cycle
(3 ½" x 4" Flask)

2 Hours @ 300°F.
2 Hours @ 149°C.

2 Hours @ 700°F.
2 Hours @ 371°C.

3 Hours @ 1350°F.
3 Hours @ 732°C.

1 Hour Heat Soak
At Mold Casting
Temperature

13 HR. Cycle
(4" x 8" Flask)

2 Hours @ 300°F.
2 Hours @ 149°C.

2 Hours @ 600°F.
2 Hours @ 315°C.

3 Hours @ 900°F.
3 Hours @ 482°C.

4 Hours @ 135°F
4 Hours @ 732°C.
2 Hours At Mold
Casting Temperature

After the metal is cast and solidified, the investment may be removed by plunging the hot flask into room temperature water. You may also use a de-flasking machine with a hydraulic cylinder to push out the investment core. When water quenching a hot flask, wear safety glasses and an approved respirator.

WARNING!

Contains respirable crystalline silica (RCS). Do not breathe dust. May cause delayed lung injury (silicosis, pneumoconiosis). The I.A.R.C. (International Agency for Research on Cancer) reports (IARC Monograph 68) there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the forms of quartz or cristobalite from occupational sources. The NTP (National Toxicology Program) reports (Ninth Annual Report on Carcinogens) that RCS is known to be a carcinogen based on sufficient evidence from studies in humans indicating a causal relationship between exposure to RCS and increased lung cancer rates in workers exposed to crystalline silica dust. Follow OSHA Safety and Health Standards for crystalline silica. See Material Safety Data Sheet (MSDS) for detailed information.

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