BIOVEST® INVESTMENT

Biovest investment can be used to cast precious and nonprecious, high temperature dental alloys and can be used with printed patterns or traditional wax patterns.

Typical Material Properties*

Color	Off White
Water or Diluted Universal Expansion Liquid to Powder Ratio	25 ml + 100 g powder
Working Time	6-8 minutes

*These results are based on the testing methods, frequency and procedures of Ransom & Randolph or its approved suppliers. The levels referenced herein are only for general guidance and do not constitute a firm specification.

Mixing & Investing

1. Add 25 ml of water or diluted Universal Expansion liquid to the mixing vessel first, then add 100 g of Biovest investment.
   NOTE:
   - Setting expansion and thermal expansion can be enhanced by using Universal Expansion liquid and more expansion is realized when using a higher concentration.
   - A common dilution ratio is 86 ml Universal Expansion liquid + 14 ml deionized water.
   - If consistently using Universal Expansion liquid, you will need:
     - 2 bottles/box of 100 g pouches
     - 3 bottles/box of 400 g pouches
     - 3 bottles/25 LB box
2. Hand spatulate for approximately 10-20 seconds to wet out the powder. Then mix under vacuum for 60 seconds at 250-350 rpm.
3. Using either a disposable or metal ring, pour the mixed investment into the ring using the normal techniques to avoid trapping air (i.e., vibration, rolling, brushing, etc.). Once the ring is filled, a pressure vessel can be employed for 15 minutes, but may not be necessary.
4. Allow the ring to bench cure for 60 minutes in a vibration free location.

Burnout

1. After bench cure, place the invested ring into a room temperature oven.
   NOTE: Having the mold supported above the oven floor is very helpful for clean burnouts.
2. At a rate of < 20°F (< 11°C) per minute, ramp the oven temperature to the required temperature for the alloy being used.
   NOTE: Running the oven with some vents open is good to help combust all the pattern materials.
3. Allow the oven to hold at the target temperature for at least 1 hour prior to casting. This time should be extended as the oven load is increased.

Flash Fire Burnout

1. After a 20 min bench cure, remove the base and the tear-away flask.
2. Place in an oven preheated to 1500-1700°F (816-927°C) or the mold casting temperature recommended by the alloy manufacturer.
3. Hold for 1 hour and cast metal into the mold.

Casting

1. Follow the alloy manufacturer's recommended metal and mold temperatures.
2. Allow the mold to air cool naturally instead of quenching in water.
3. When removing the casting from the mold, remember to use the proper personal protective equipment to avoid inhaling the dust particles.

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