

**DENTSPLY**  
AUSTENAL

**VITALLIUM<sup>®</sup>**  
**2000 RS**  
*Rapid Set Investment System*

DIRECTIONS FOR USE

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## Instructions For Mixing Investment Liquid

To make one gallon of investment liquid, pour the entire contents of Vitallium® 2000 Liquid 'B' into the bottle of Vitallium® 2000 Liquid 'A'. If less than one gallon of liquid is desired, mix one part (by volume) of the Liquid 'B' with seven parts of the Liquid 'A'.

Vigorously mix Liquid 'A' and Liquid 'B' for 10-30 minutes until the solution turns from cloudy to clear. Seal and store the solution inside a 40°F refrigerator for at least 3 hours before use.

## Model Duplication

1. Prepare the duplicating mold following the instruction for the duplicating material.
2. Use a mixing ratio of 100g investment and 17ml liquid for refractory model.
3. Mix the powder and liquid thoroughly in a clean bowl. Pour the mixture into the duplicating mold under vibration. Continue to vibrate for at least five minutes. Remove the case from the vibrating table and allow it to bench set for an additional 25 minutes.
4. Remove the refractory model gently from the duplicating mold and trim it on a model trimmer.
5. Place the refractory model in a cold oven and heat it to 450°F

(232°C) and soak for 45 minutes. Then, submerge the model in 325°F (163°C) DENTSPLY Austenal Refractory Model Dip for 8-10 seconds. Allow the refractory model to cool to room temperature.

## Wax-up and Spruing

Wax-up and attach sprues on the refractory model using conventional wax-up techniques.

## Investing


1. Seal the prepared refractory model to a base.
2. Prepare case for investing by applying a layer of DENTSPLY Austenal Protective Coat.
3. Place an investing ring on the base around the refractory model.
4. Use a mixing ratio of 100g investment and 17ml liquid for investment mixture. Mix investment and liquid thoroughly in a clean bowl. Pour the mixture carefully to fill the ring under vibration. Continue to vibrate for at least 5 minutes. Remove the case from the vibrating table and allow it to bench set for an additional 25 minutes.
5. Remove the investment ring, and grind down the excess investment from the top of the case. Allow it to bench set for another 30 minutes before burnout.

## Burnout and Casting

1. Place the cases in a cool furnace, and heat the furnace to 1200°F (649°C) and hold for 30 minutes.
2. Increase the furnace temperature to 2000°F (1093°C) and soak for 60 minutes.
3. Cast alloy per the recommended technique.
4. Allow cases to bench cool after casting – Do Not Water Quench – prior to break out.

### 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 (I.A.R.C. 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.

NPCAHMIS CODE		NOTE
Health	3	Prolonged unprotected overexposure may result in nonreversible silicosis. Sufficient evidence shows crystalline silica causes cancer in humans.
Flammability	0	Non-flammable
Reactivity	0	Non-reactive
Personal Protection	*	Use NIOSH/MSHA/OSHA approved respirator.
 DUST RESPIRATOR		See Material Safety Data Sheet (MSDS) for Detailed Information.

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