

# CHROMEX™ FINE INVESTMENT



## User-Friendly, Fool Proof Technique Ensures Exceptional Results

A three-part ethyl silicate investment formulated for strength to reduce potential cracking during burnout. Used to cast precious and nonprecious, high temperature alloys for partial denture frames.

Also available in a Regular formula.

## Instructions for Mixing Investment Liquid

To make one gallon of investment liquid, pour the entire contents of Chromex™ Binder 'B' into the bottle of Chromex™ Binder 'A'. If less than one gallon of liquid is desired, mix one part (by volume) of Chromex Binder 'B' with eight parts of Chromex Binder 'A'. Reduce the mixing ratio to one part of Binder 'B' to nine parts of Binder 'A', when the set time is less than 10 minutes in hot and humid conditions.

Vigorously mix Binder 'A' and Binder 'B' until contents get hot. Loosen cap to release the pressure from the heat. Recap and shake again three more times. Allow the liquid to cool to room temperature before use. Store unused liquid in a refrigerator. MIXED LIQUID SHOULD BE USED WITHIN THREE DAYS.

**NOTE: Observe local codes to dispose of waste liquid.**

## Model Duplication

1. Soak the surveyed master model in lukewarm water for 20-30 minutes, or for 2-3 minutes under vacuum. Take the model out of the water, blow off excess water from the surface, and place on a duplicating base.
2. Duplicate the model with Perflex® duplicating material, following the instructions for proper melt-down and dispensing procedures. After bench set for 5-10 minutes, place the duplicating flask in 1½ inch deep cold water for 30-45 minutes. Remove the master model from the duplicating mold and blow off excess water from the mold surface.
3. Use a mixing ratio of 100 g investment and 18.5 ml liquid for refractory model. For one model: mix 300 g of Chromex Fine powder with 55.5 ml of investment liquid.  
Mix the powder and liquid thoroughly in a clean bowl. Pour the mixture into the duplicating mold under vibration. Continue to vibrate until the investment is set in about 15-20 minutes. Remove the case from the vibrating table and allow it to bench set for an additional 30 minutes.
4. Remove the refractory model gently from the duplicating mold and trim it on a model trimmer. After trimming, the base of the model should be at least a ½ inch thick and the perimeter of the model should be tapered toward the base and be free of any sharp corners.
5. Place the refractory model in a cold oven and heat it to 450°F (232°C) and soak for 1 hour. Then, submerge the model in 250°F (121°C) hard model dip for 8-10 seconds. Place the model on a wire rack to allow the excess model dip to drain off. Allow the refractory model to cool to room temperature.  
**NOTE: hard model dip should be melted under a fume hood.**

## Wax-Up and Spruing

Wax-up case on refractory model. Attach sprues using conventional wax-up techniques.

## Investing

1. Seal the prepared refractory model to a base.
2. Prepare case for investing by applying a coat of All Purpose Protective Coat.
3. Place an investing ring on the base around the refractory model. Make sure there is at least ½ inch clearance around the



## RANSOM & RANDOLPH

3535 Briarfield Boulevard | Maumee, OH 43537 USA  
800.800.7496 | 419.865.9497 | 419.865.9997 (FAX)  
www.ransom-randolph.com



Made in the USA

Ransom & Randolph GmbH  
Leipziger Straße 40 | 04571 Rötha Germany  
+49 342 06373999

*Investing with Innovation™*

# CHROMEX™ FINE INVESTMENT

model and at least 1½ inches space above the highest point of the model to the top of the ring.

4. Use a mixing ratio of 100 g investment and 18.5 ml liquid for investment mixture. For one investment ring: mix 600 g of Chromex Fine powder with 111 ml of investment liquid.

Mix investment and liquid thoroughly in a clean bowl. Pour the mixture carefully to fill the ring under vibration. Continue to vibrate until the investment is set in about 15-20 minutes. Remove the case from the vibrating table and allow it to bench set for an additional 30 minutes.

5. Grind down ⅜ to ½ inch excess investment from the top of the ring with a model trimmer. Leave at least ½ inch of investment above the highest point of the refractory model and allow it to bench set an additional hour before burnout.

## Burnout and Casting

1. Place the rings in a cool furnace.
2. Raise the furnace temperature to 500 °F (260 °C) and hold for 1 hour
3. Raise the furnace temperature to 1000 °F (538 °C) and hold for 1 hour.
4. Raise the furnace temperature to 1850 °F (1010 °C) and hold for 30 minutes.
5. Remove the rings from furnace and cast using chrome cobalt following the casting instructions from your alloy supplier.
6. Allow cases to bench cool prior to divesting. Do Not Water Quench.

## Storage

Keep containers closed and locked up when not in use. Store in a well-ventilated place. Store unused liquid in a refrigerator. Store investment in a cool dry area.

## Safety

**Binders:** Danger. Contains Hydrochloric Acid. May be corrosive to metals. Causes severe skin burns and eye damage. Causes damage to lungs through prolonged or repeated exposure. Do not breathe vapors. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Do not eat, drink, or smoke when using this product. Absorb spillage to prevent material damage. See SDS for more information

**Investment:** Danger. Contains crystalline silica. May cause cancer by inhalation. Causes damage to lungs through prolonged or repeated exposure. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Wash hands thoroughly after handling. Do not eat, drink, or smoke when using this product. In case of inadequate ventilation wear respiratory protection. Get medical advice/attention if you feel unwell. See SDS for more information.

*As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user. All potential liability related to the sale and use of this product is limited to the cost of the particular goods sold in their respective transactions.*



## RANSOM & RANDOLPH

3535 Briarfield Boulevard | Maumee, OH 43537 USA  
800.800.7496 | 419.865.9497 | 419.865.9997 (FAX)  
www.ransom-randolph.com



Made in the USA

Issue Date: February 9, 2024

Ransom & Randolph GmbH  
Leipziger Straße 40 | 04571 Rötha Germany  
+49 342 06373999

Investing with Innovation™