

# PERFLEX® DUPLICATING MATERIAL



## A Premium, Reversible Hydrocolloid

This specialized duplicating material is ideal for producing ethyl silicate refractory models, as well as molds for the fabrication of partial and full dentures using the fluid resin pouring technique.

**Note:** Can only be used with ethyl silicate investments.

## Typical Material Properties\*

Funnel Viscosity at 131 °F (55 °C)	Gel Strength at Rupture	Melt Temperature	Idle Temperature	Hold Time	Color
20-38 seconds	7 lb. 4 oz. minimum	207 °F (97 °C)	131 °F (55 °C)	≤ 1 hour	Transparent/Tan

\*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.

## Melting Procedures

1. Remove cover from the container and remove as much material as required. Cover and seal any remaining portion in the original container.
2. Chop material into small pieces.
3. Heat and carry out the melt cycle in a duplicating machine. Avoid the use of aluminum, copper, and iron bearing alloyed containers.

### NOTE:

- IF AUTOMATIC MELT EQUIPMENT IS USED: Set the melt temperature at 207 °F (97 °C) and the pouring temperature at 131 °F (55 °C) and follow the equipment manufacturer's instructions.
- IF A HOTPLATE IS USED: Exercise care to avoid overheating and/or scorching. Stir while heating until all the particles are melted and completely in solution. Heat the melt to 207 °F (97 °C) for no more than ONE (1) HOUR. Remove from source of heat and allow the melt to cool to 131 °F (55 °C) while agitating. Maintain the melted material at a POURING TEMPERATURE OF 131 °F (55 °C). This precaution will extend the life of the material.
- Do not use a microwave to melt Perfex duplicating material.

## Usage

To ensure that the model is fully hydrated, soak the model in water for 20 minutes. Fill flasks containing properly soaked models with Perfex duplicating material and chill in cold water bath 50 ±10 °F (10 °C) for 45 minutes. Chill longer if water temperature is warmer than 60 °F (15 °C).

After molds have been used for either refractory model duplication or fluid resin pouring, they should be rinsed free of any gypsum or refractory debris, and stored in a CLOSED, AIRTIGHT container until the next remelt cycle. Any liquid that separates from the used molds during storage should NOT be discarded but added to the mold pieces during the next remelt cycle.

After several remelts, the duplicating material may thicken and pour slowly at the pouring temperature of 131 °F (55 °C). The resulting molds may appear dry and somewhat brittle. To eliminate this problem, add 150 ml of water for EACH bucket of Perfex duplicating material being melted at the beginning of the remelt cycle.



## 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™

# PERFLEX<sup>®</sup> DUPLICATING MATERIAL

## NOTE:

- If Perflex duplicating material is not properly heated, it may become grainy. To avoid this, ensure a sufficient amount of time is allowed to dissolve all particles. If grainy texture persists, you may need to run the remelt cycle again.

## Refractory Model Duplication

Remove model and gently blow dry with air jet and place mold (open side down) on bench to prevent drying and shrinkage. Follow manufacturer's instructions for mixing and setting times of the refractory slurry.

## Fluid Resin Pouring

Properly soak model with wax pattern and position in a flask in desired manner. Fill the flask with molten material. Chill in a cold water bath  $50 \pm 10^{\circ}\text{F}$  ( $10^{\circ}\text{C}$ ) for 40 minutes. Position flask in the water bath on slats or ribs to allow proper water circulation. After chilling, disassemble the flask and remove the mold. Slit mold in three or four places (being careful not to cut down on the waxed area), and remove model. Cut desired sprues and venting holes and rinse mold in rapidly running cold water. Blow dry with an air jet and cover mold not being worked on with a damp towel. Follow resin manufacturer's technique for casting of dentures.

## Storage

Keep container closed when not in use. Store in a cool dry area.

## Safety

Before handling this material, review the corresponding Safety Data Sheet (SDS).

## Availability

Package Size	Color	Item Number
2 GAL (7.5 L)	Transparent/Tan	021055

To order, visit [shop.ransomrandolph.com](http://shop.ransomrandolph.com) or contact an authorized distributor. For a list of authorized distributors near you, visit [ransom-randolph.com/distributors](http://ransom-randolph.com/distributors) or contact your region's R&R Customer Service Team.

*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](http://www.ransom-randolph.com)



Made in the USA

Issue Date: July 26, 2024

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

Investing with Innovation<sup>™</sup>