

# NEOFLEX™ DUPLICATING MATERIALS



Neoflex duplicating materials are standard duplicating hydrocolloids. These all-purpose duplicating materials are suitable for producing both refractory and dental stone models, as well as molds for the fabrication of partial and full dentures (utilizing the fluid resin pouring technique).

Neoflex duplicating materials can be used with stones, ethyl silicate investments, and phosphate investments.

Neoflex duplicating materials are available in two formulas:

- Neoflex Blue duplicating material
- Neoflex Concentrate duplicating material (an economical option, allowing for shipping cost savings)

## Typical Material Properties\*

Melt Temperature	Idle Temperature	Hold Time	Color
195 °F (90 °C)	131 °F (55 °C)	0	Blue

\*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

### Neoflex Blue duplicating material

1. Chop solid paste into small pieces.
2. Heat to 195 °F (90 °C) until completely melted. DO NOT OVER HEAT: doing so will cause evaporation.
3. Maintain molten state at 131 °F (55 °C).
4. Add water if paste becomes too thick (1-3 cups).

### Neoflex Concentrate duplicating material

1. Add entire pack of dry powder and entire bottle of concentrated liquid.
2. Add 1 gallon of water.
3. Heat to 195 °F (90 °C) and run a full cycle in a duplicating machine.
4. Cool to desired working temperature. We recommend 125-130 °F (52-54 °C).

### NOTE:

- Do not use a microwave to melt Neoflex 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 Neoflex 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 (16 °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 idle 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 Neoflex duplicating material being melted at the beginning of the remelt cycle.



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## NOTE:

- If Neoflex 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.

### Stone Model Duplication

Remove model and wash mold with cold running water. Gently blow dry with air jet and place mold (open side down) on bench to prevent drying and shrinkage. Mix stone as per manufacturer's instructions. Slower setting stones usually require a longer period of spatulation to achieve a faster initial set. Fast setting stones may be removed approximately 20 minutes after initial set, whereas slower setting stones will require more time - approximately 45-60 minutes. At the proper time, remove mold with duplication from the flask and cut mold away from duplicate model. Trim the model and rinse with water.

### 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 time of the refractory material. DO NOT use Neoflex duplicating material if Protective Coat is specified in the technique.

### 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.

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