

UNIFLEX™ DUPLICATING MATERIAL



Uniflex duplicating material is a premium, all-purpose duplicating hydrocolloid. This universal duplicating material is ideal 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).

Uniflex duplicating material can be used with stones, ethyl silicate investments, and phosphate investments.

Uniflex duplicating material is formerly known as Polyflex® duplicating material.

Typical Material Properties*

| Funnel Viscosity at 131°F (55°C) | Gel Strength at Rupture | Melt Temperature | Idle Temperature | Hold Time | Color |
|----------------------------------|-------------------------|------------------|------------------|-----------|-------------|
| 17-32 seconds | 7 lb. 4 oz. minimum | 207°F (97°C) | 131°F (55°C) | ≤ 1 hour | Clear/Beige |

*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 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 Uniflex 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 Uniflex 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 Uniflex duplicating material being melted at the beginning of the remelt cycle.



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NOTE:

- If Uniflex 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 Uniflex 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°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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