Instructions

Multiflex™ duplicating material

Properties*

Color	Melting Temperature	Idle Temperature	Hold Time
Aqua Blue	192°F (89°C)	131°F (55°C)	≤10 minutes

**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.*

Step 1: Preparation

Model

1. Soak the model in water for 20 minutes so it becomes fully hydrated.
2. Place the hydrated model in a duplicating flask. Do not use containers made from aluminum, copper, iron, or alloys containing these materials.

Duplicating Material

1. Measure and remove the Multiflex material needed for the batch.
2. Using a knife, cut the Multiflex material into small pieces, approximately 1 inch (25 mm) cubes and place into clean duplicating unit.
3. Cover and seal any remaining portion in the original container.

Step 2: Melting Procedure

Automatic Equipment

1. Set the melt temperature at 192°F (89°C) and the idle temperature at 131°F (55°C).
2. Follow equipment manufacturer's instructions.
3. Allow the mold to cool at room temperature for 60–90 minutes before attempting removal.

Hotplate

1. Place the prepared duplicating material on a heat source in a glass beaker.
2. Stir continuously while heating until the material is completely melted and smooth. Do not overheat or scorch the material.
3. Heat the material to 192°F (89°C) for no more than one hour.
4. Remove from the heat source and allow the melt to cool to 131°F (55°C) while agitating.
5. Pour the melt into the prepared duplicating flask.
6. Allow the mold to cool at room temperature for 60–90 minutes before attempting removal.

Important: Do not use a microwave to melt Multiflex duplicating material.

Step 3: Model Removal

1. Gently remove the original model from the mold, and wash under cold water.
2. Gently blow dry with air jet.
3. Place the mold open-side down on a clean bench surface to help prevent drying and shrinkage.

Step 4: Duplication

Stone Model

1. Mix stone as per manufacturer's instructions.
2. Pour the mixture into the mold.
3. Allow the material to set according to the manufacturer's instructions.
4. Tear mold away from duplicate model.
5. Trim model and rinse with water.

Refractory Model

1. Follow manufacturer's instructions for mixing and setting time of the refractory material. Do not use Multiflex duplicating material if Protective Coat is specified in the technique.
2. Pour the mixed refractory material into the mold.
3. At the proper time, remove mold with duplication from the flask.
4. Tear mold away from duplicate model.
5. Trim model and rinse with water.

Fluid Resin Pouring

1. Properly soak model with wax pattern and position in a flask as required
2. Fill the flask with molten material.
3. Chill in a cold water bath at 50 ± 10°F (10 ± 5.6°C) for 40 minutes. Position flask in the water bath on slats or ribs to allow proper water circulation.
4. After chilling, disassemble the flask and remove the mold.
5. Slit mold in three or four places (being careful not to cut down on the waxed area) and remove model.
6. Cut desired sprues and venting holes.
7. Rinse mold in rapidly running cold water.
8. Blow dry with an air jet and cover mold not being worked on with a damp towel.
9. Follow resin manufacturer's technique for casting dentures.

Step 5: Clean-Up

1. Rinse the used mold to ensure it is free of any gypsum or refractory debris.
2. Store the material in a closed, airtight container until the next remelt cycle.

Step 6: Reuse & Remelting

Prepare the used material and follow the standard melting instructions.

- Do not add water when remelting. The water left on the material after rinsing is typically enough to replace moisture lost during use.
- 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 5 fl oz (150 mL) of deionized water for each pail of Multiflex duplicating material being melted at the beginning of the remelt cycle.

Tips

- Do NOT heat Multiflex duplicating material above 195°F (91°C).
- If Multiflex 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.
- To speed up the cooling process, place 1/3 of the flask in cold water bath at 50 ± 10°F (10 ± 5.6°C) for 45 minutes. Chill longer if water temperature is warmer than 60°F (16°C).

Storage

Keep container tightly closed when not in use. Store at room temperature. Shelf life is 2 years from the date of manufacture found in the first six digits of the lot number on the label in MMDDYY format.

Safety

Warning. Causes skin irritation. Causes serious eye irritation. Avoid contact with skin and eyes. Wash hands thoroughly after handling. Wear protective gloves and eye protection. See SDS for more information.

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