

Technique Highlight Sheet - Full Dentures

This technique highlight sheet shows how to inject Lucitone 199® using a microwave curing procedure with a microwaveable Flask.

Microwave Prerequisites: Built-in turntable or aftermarket turntable is necessary for proper cure of the denture base. Minimum of 2 inches of clearance between the wall of the microwave and the Flask on all sides is required for proper curing. Microwave must have a power level range of 10% to 100% in 10% increments (setting range of 1 to 10). *If your microwave does not conform to all of these initial requirements, you will not be able to utilize this microwave cure technique.*

NOTE: A 3-Part Investing Technique is incorporated into these instructions.

1 Calibrate Microwave Oven.

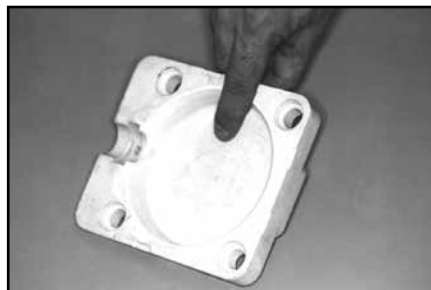
1. Fill a plastic container (beaker) with 500 milliliters of tap water. Record the temperature of the water in the container here: _____°C/°F.
2. Place the container on the microwave turntable slightly off center and close to the door. Set the power level to 10% (setting of 1 on a range of 1 to 10) and cook time to 15 minutes. Press START.
3. When the cook cycle is over, immediately remove the container and record the water temperature here: _____°C/°F.
4. Subtract the initial temperature you measured in step 1 from the final temperature. The change in temperature of the water must be between 50 to 65°C or 122 to 147°F. If this power setting achieved this change in temperature, it is the correct power setting to correctly cure Lucitone 199.
5. If step 4 resulted in a temperature change less than 50°C/122°F, repeat steps 1 through 4, increasing the power level by 10% each time until the change in temperature of the water is 50 to 65°C or 122 to 147°F.

RECORD YOUR POWER SETTING HERE: _____
Microwave should be recalibrated frequently, at least once per month.

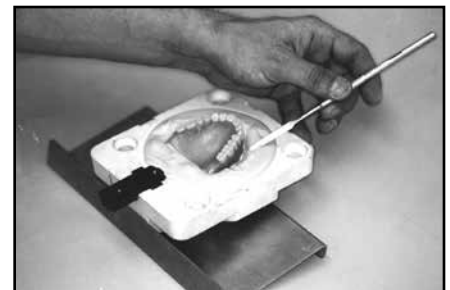
1 Embed the Bottom Half of the Flask.



Apply petrolatum to the inside of the Microwave Flask, and place the Flask on the Leveler (side "1" up).



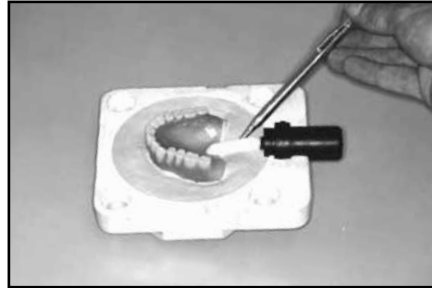
Cover the deflasking hole with two pieces of moist paper towel, or with wax.



Position the "pin half" of the Space Maintainer in the injection cavity.
POUR #1: Mix Type 3 dental stone (DENTSPLY LabStone) and embed the cast and wax-up in the Flask, placing the cast in the center of the Flask. Remove all excess DENTSPLY LabStone. Then, fit the top half of the Space Maintainer securely on the bottom half.

3 Position the Injection Sprues.

After eliminating any undercuts on the cast, use Success® Sprue Wax (Item #904584) or flattened wax sticks (approx. 7 mm dia.) to build the injection sprues.



On upper dentures, attach the sprue to the posterior border, ensuring that the sprue is sufficiently wide. On lower full dentures, position two sprues - one to each lingual extension.

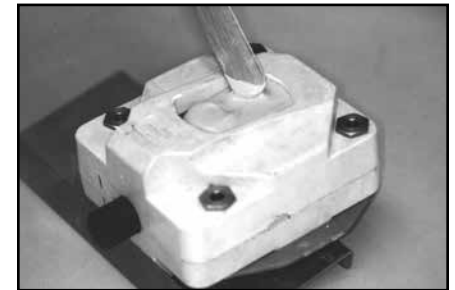
4 Embed the Top Half of the Flask.



Apply separator to the DENTSPLY LabStone, and place the top half of the Flask on the bottom half, **ensuring complete, intimate contact and closure of the halves.** Secure metal Flask Brackets to the Flask and tighten using a metric wrench, specifically for the Microwave Flask.



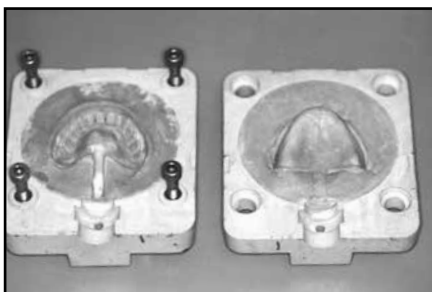
POUR #2: Place the Flask on the Leveler (side #2 up), mix DENTSPLY LabStone, and pour it into the Flask, **only up to the occlusal incisal surface of the teeth.** As the DENTSPLY LabStone begins to set, wipe away any excess investment to keep the occlusal incisal surface clear.



Apply separator (such as sodium silicate or another alginate or petrolatum separator) over pour #2 once set. (A separator plate may be used as an alternative.)

POUR #3: Pour additional DENTSPLY LabStone on top of separator, filling the Flask. Remove excess, level, and allow DENTSPLY LabStone to set completely.

5 Eliminate Wax.



Loosen the bolts and remove the metal Flask Brackets. Place Flask in microwave oven. Heat on HIGH setting for 1 minute and 20 seconds to soften wax. **Open the Flask and remove the Space Maintainer.** Discard all wax. Flush and clean thoroughly.

Bevel the stone around the mouth of the sprue. Check Flask margin and cavities, **ensuring that both Flask halves make intimate contact.**

6 Apply Separator.

Apply two layers of Al-Cote® Separating Agent to all gypsum surfaces, while still hot. Allow the Flask to cool to room temperature.

7 Position Injection Insert.



Place the metal Injection Insert into the back of the Flask. Then, slide the plastic Injection Socket into the metal Insert as far as possible.

The plastic Injection Socket lip should rest flush against the rim of the metal Injection Insert.

Close the Flask, position the metal Flask Brackets, and gently tighten the bolts. Overtightening will strip the threading on the Flask.

8 Mix the Acrylic.

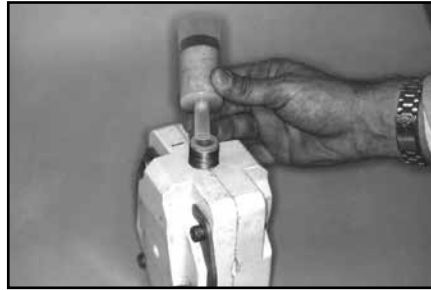
Refer to in-package Lucitone 199 Instructions, and use powder/liquid vials to measure sufficient resin and liquid for the case.

NOTE: The maximum powder/liquid that the Injection Cartridge can hold is **38g (56cc) powder/17.5 ml liquid.**

Stir powder/liquid approximately 15 seconds. **Do not overmix.** Cover mixing jar until material reaches the “soft pack” stage (approx. 6 min.).

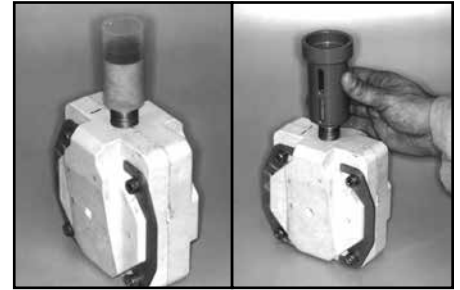
NOTE: Do not allow material to reach “snap” stage.

9 Load Injection Cartridge.



Place material into the plastic Injection Cartridge; then insert the blue plastic Cartridge Plug into the large open end, **ribbed side out.** Push the blue Cartridge Plug in as far as possible to compress the material.

10 Place Cartridge in Flask.



Insert the Cartridge nozzle into the plastic Injection Socket until it seats on the Injection Socket’s lip. Place the metal Protective Sleeve over the Cartridge.

11 Position Flask in Unit.



Place the Flask in the Injection Unit, **ensuring that the bolts and Flask Brackets face to the operator’s right side.** Position the open slots on the Cartridge Sleeve facing out; then push the sleeve up toward the unit’s cross head, securing the Sleeve around the blue rubber “O” ring. Gently tighten the unit Hand Wheel to secure the Flask. The Flask should be aligned completely vertical with the Injection Piston.

12 Inject.



Press down on the unit’s rocker switch to inject. Ensure that the mold is completely filled by viewing the blue Cartridge Plug through the Sleeve slots until the Plug stops moving. Allow the piston drive to remain down, exerting pressure on the case for 60 seconds after injection. Press up on the unit’s rocker switch to retract the piston. Loosen the Hand Wheel and remove the Flask from the unit.

Remove the Cartridge Sleeve and pull the Plastic Cartridge out of the Flask with a slight twist. Keep the Injection Socket in place inside the metal Injection Insert.

NOTE: If the Socket slides out with the Cartridge, simply replace it into the metal insert.

13 Place the Pressing Device Piston into the Flask.



Fit the small blue plastic Piston Cap onto the end of the Pressing Device Piston. Place the Piston of the Pressing Device into the plastic Injection Socket at the back of the Flask. Screw the Pressing Device onto the metal Injection Insert **until the etched groove is visible on the pin at the top of the Pressing Device.** Do not over tighten, as this will prematurely fatigue the spring.

14 Bench Set.

Bench set the Flask Assembly for 30 minutes prior to curing to ensure a good bond between the denture resin and the teeth. This is also required to avoid porosity.

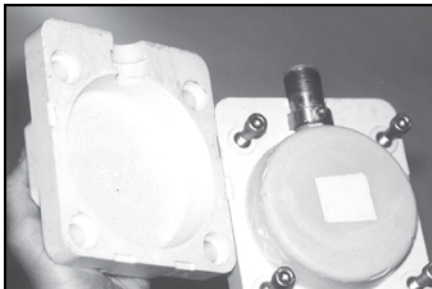
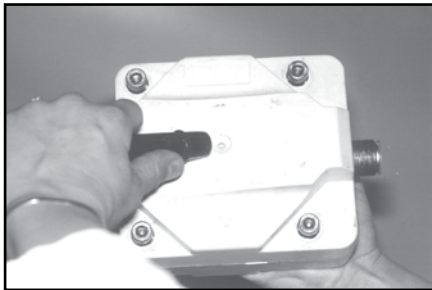
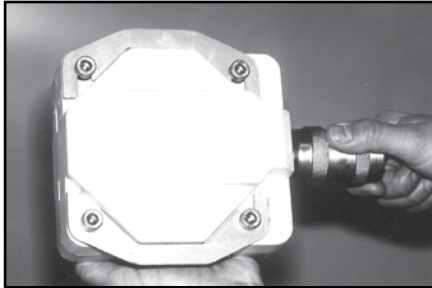
15 Heat Cure.

Place the Flask Assembly in the center of the microwave oven turntable. Keep Repress Device at least 2 inches from the walls of the microwave oven. Close oven door and cure for 15 minutes at power setting determined in step 1.

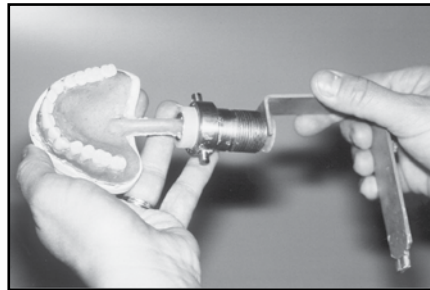
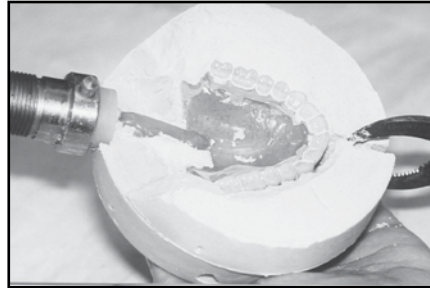
16 Cool.

At the conclusion of the cure cycle, remove the Flask from the microwave using the Repressing Device as a handle and allow it to cool for 15 minutes in tepid water.

17 Divest the Denture.

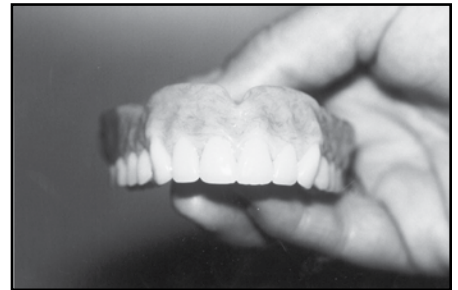
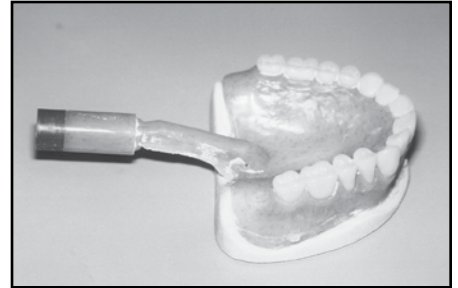


Unscrew the Pressing Device and loosen the bolts on the Flask. Remove the Flask Brackets and separate the Flask. Remove the investment from the bottom half of the Flask by blowing compressed air through the deflasking hole.



Remove the investment from the top half of the Flask. Divest the denture and cast from the bulk of the investment. Remove the metal Injection Insert and extract the plastic Injection Socket using the Extension Claw tool. Discard the plastic Injection Socket and clean the Injection Insert for the next use.

18 Finish and Polish.



Cut off the injection sprue(s), and finish and polish the denture in a conventional manner.

DENTSPLY

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Success® & Lucitone 199®
Injection System Denture Base Resin

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