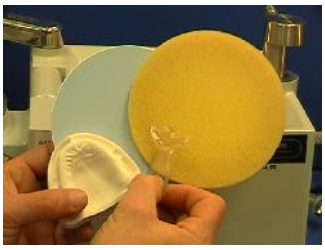
Custom Impression Tray Technique

Safety glasses should be worn for all lab procedures as well as gloves when handling acrylics. Items featured in this technique are found on the last page.



1 Thermal forming materials for custom tray fabrication include pre-formed tray handle, spacer foam, and 3mm blue heavy weight material. The stone construction model is prepared for tray fabrication. Identify moderate dental undercuts and relieve using Snapstone or Light Cure Block-Out Gel.

2 Place the model into the pellet cup with the heel facing to the left side of the machine. Elevate the model to reference the top edge of the model base to be at the same height as the cup's rim. Fill in pellets between the model and cup's rim and sweep level with the pellet brush. Make sure there are no pellets remaining on the cup's rim.

3 The spacer foam is moistened with water. This will allow it to be easily removed from the formed blue heavyweight material. Squeeze out excess water from the spacer foam. Remove the Biostar pellet drawer for this application. Excess moisture from the spacer foam could flow into the drawer. Center the spacer foam over the model in the pellet cup.

4 Clamp the 3mm blue heavyweight material onto the pressure chamber. Identify the material's heating time or Biostar code and enter it into the machine.

5 Swing the lamp over the material to start the heating cycle. At the end of the heating cycle, remove the lamp from the material.

6 Swing the chamber over the model and the spacer foam in the pellet cup. Lock chamber in place.

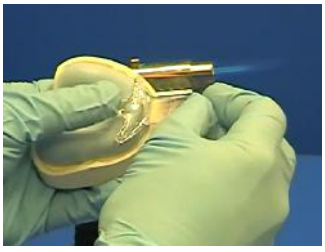
7 Allow to cool under pressure for 2 minutes. At the end of the cooling cycle, release the pressure from the chamber. Unlock the chamber and clamped material.

8 Swing open chamber and remove the formed material and model from the machine. Peel off the spacer foam from the blue heavyweight material.

9 With a carbide cutting bur in a lab handpiece, cut the tray body following the vestibular fold and heel of the model. Remove the cut tray foam from the plastic disc.

10 Using a carbide taper bur in a lab handpiece, tailor tray borders to follow soft tissue contours along the model base.

11 With a sandpaper mandrel and a 3-inch strip of 150-grit sandpaper, smooth trimmed borders.



12 Once the tray is trimmed, temporarily hold the pre-formed handle in position by heating the bitefork-like ends with a butane torch. Mold them to the tray using gloves for insulation. Make sure to center the tray handle with the anterior ridge of the tray on the model.

13 Secure the handle to the tray using biocryl resin. Mix monomer liquid and polymer powder to a syrup-like consistency. Apply mixed resin to handle and tray area with a spatula.

14 Place the model and tray with handle into a humid pressure pot for 15 minutes. The pots pressure is approximately 20psi and water temperature is about 120ºF. Do not submerge device in water.

15 Evacuate the air pressure from the pot. Open the pot's lid and remove cured tray with handle.

Items featured in technique:

235-010	Astro Spec Safety Glasses (reg./blue)
235-062	N-Dex Non-latex Gloves (Med)
010-096	Tray Handle
021-092	Spacer Foam
021-047	Blue Heavyweight
006-014	Blue-Blokker Light Cure Material
190-030	ProCure Light Cure Oven
215-020	SnapStone
150-025	Lab Handpiece
085-027	Cutting Bur
085-009	Carbide Taper Bur
085-022	Sandpaper Mandrel
060-007	Sandpaper Roll
080-006	Micro Torch
080-009	Gas Refill
040-014	Biocryl Resin
175-025	Resimix Cup
165-004	Spatula
225-040	Pressure Pot

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