



Fabricating a Matrix for a Temporary

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 The original model is waxed up and a duplicate is made. This duplicate will be the first model used to make the acrylic holding tray.



- 2 Meanwhile, a second model of the prepared teeth will be needed to anchor the bridge.



- 3 To start, take the stone duplicate of the waxed-up model and position it within the pellet cup. Remove excess pellets from the cup and allow a model reference of 3mm below the gingival margins to be level to the rim of the cup.



- 4 Pour pellets around the model to fill gaps to the rim of the cup. For this application the heel of the model is facing to the left.



- 5 Sweep excess pellets from the cup. Pellet lines should be 3mm below the gingival margins to the cup's rim. Pellets are also placed lingually or in the pallet 3mm below the gingival margins.



- 6 A 1.5mm thick copyplast material is clamped onto the chamber and a heating time of 65 seconds or Biostar code 192 is entered into the machine.



- 7 The lamp is rotated over the material to start the heating cycle.



- 8 When the heating cycle ends, remove the heat source. Swing the chamber over the model and lock in place. Allow the formed material to cool for about 2 minutes.



- 9 At the end of the forming cycle release the air pressure.



- 10 Unlock the chamber and clamped material. Swing open the chamber and remove the formed material and model from the pellet cup.



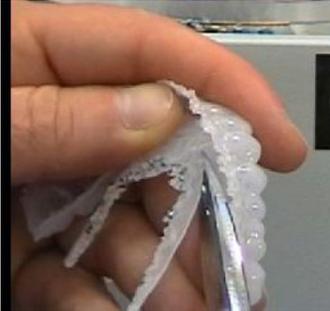
- 11 Remove as many pellets as possible that may have stuck to the forming surface of the material.



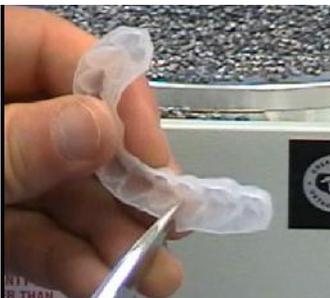
- 12 Heat a lab knife with a torch and cut out material along pellet and model junction.



13 Carefully remove the formed material from the model.



14 Using #55 lab shears, cut the plastic 1mm below the gingival margins.



15 Terminate the tray 1 to 2 teeth beyond the bridge area.



16 The second model having prepped teeth is now needed. The tailored tray will be placed over this model to capture the prepped tooth structures for this bridge.



17 Rubber sep spacer material is painted over each prepped tooth. This will allow space for cements or adhesives to be applied between the preps and the temporary bridge.



18 Once the rubber sep has dried, apply liquid separator to the model.



- 19 A tooth-shade acrylic is mixed to a thick maple syrup consistency in a small resin mix cup.



- 20 The resin is applied within the formed matrix at the prepped model areas. Fill these two channels completely.



- 21 Align the tray over the prepped model and seat the tray. Excess acrylic should squeeze out from the bottom of the tray. Make sure the tray is completely seated.



- 22 Immediately place the model and tray into a humid pressure pot for 15 minutes. Pressure is set at 20 psi. At the end of the curing cycle, release the air pressure and remove the model with cured acrylic from the pot.



- 23 Carefully remove the tray and acrylic bridge from the model, then separate the bridge from the tray.



- 24 Trim the acrylic bridge using a carbide taper bur and a lab hand piece. Detail the cervical crown contours with the bur.



25 A rag wheel is moistened and attached to a dental lathe using low speed. Then water is mixed with a medium grade pumice.



26 Apply pumice to the plastic teeth and press against wheel. Smooth acrylic surfaces, add additional pumice as needed. Rinse and dry plastic teeth.



27 Turn on lathe to low speed. Attach a 4 inch muslin buff wheel to the quick chuck mechanism on the lathe.



28 Apply Tripoli polish to the wheel. This polish is used to remove fine scratches that the pumice agent may have incorporated. Polish plastic teeth. Remove the wheel with Tripoli polish and replace it with a second 4 inch muslin buff wheel.



29 Apply Fabulustre polish to shine plastic teeth.



30 Finally, scrub clean plastic teeth with liquid soap and tap water, then dry.

Items featured in technique:

| | |
|---------|--|
| 235-010 | Astro Spec Safety Glasses (reg./blue) |
| 235-062 | N-Dex Non-latex Gloves (Med) |
| 190-038 | Vector "Sensor-Touch" Programmable Waxer |
| 260-029 | Great Lakes Presentation Wax |
| 100-011 | Impression Trays |
| 100-001 | Kromopan |
| 030-029 | 1.5mm Copyplast |
| 080-006 | Micro Torch |
| 080-009 | Gas Refill |
| 170-005 | Lab Knife |
| 220-023 | No. 55 Plate Shears |
| 175-103 | Great Lakes Rubber-Sep |
| 175-034 | Separator |
| 075-007 | Separator Brushes |
| 040-012 | Biocryl #62 Tooth Shade Acrylic |
| 175-025 | Resimix Cup |
| 165-004 | Spatula |
| 225-040 | Pressure Pot |
| 150-025 | Lab Handpiece |
| 085-009 | Carbide Taper Bur |
| 230-003 | Medium Pumice |
| 086-003 | Plastic Rag Wheel |
| 180-002 | Lathe with Quick Chuck |
| 110-014 | Splash pan Light-right side |
| 105-060 | Handler Poratvac |
| 105-061 | Handler Protovac replacement filters |
| 086-002 | Muslin Buffs |
| 230-007 | Tripoli |
| 230-008 | Fabulustre |
| 180-016 | Quick-Chuck Threaded Mandrel |



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