

Removable Partial Denture Fabrication Technique



1 MODEL AND FRAMEWORK PREP:
Land area of the cast should be 1 mm or less above the depth of the sulcus to allow light penetration to the border of the appliance. Duplicate cast if necessary. Model should be dry. Framework retention should be an open lattice design to prevent cure shadows.



2 BASEPLATE FABRICATION:
Do not block out any undercuts. Place a self-adhesive temperature indicator on the back base of the model. Paint the model with Al-Cote[®] Separating agent and allow it to dry.



3 Place the model in the DENTSPLY Conditioning Oven until the temperature indicator turns black. Be sure to place the framework (off the model) in the oven, so that the framework can warm-up as well.



4 Take the Eclipse Baseplate Resin out of the package first before taking the model out of the Conditioning Oven. Cut a sufficient amount of material to cover edentulous spaces.



5 Place the rounded side of the Eclipse Baseplate Resin down on the surface of the cast. If necessary, immediately place model with material back in the Conditioning Oven for 30 – 60 seconds to further soften the resin and make it easier to adapt without trapping air.



6 Adapt the Eclipse Baseplate Resin to the design of the appliance. Now, remove the framework from the Conditioning Oven and place it back on the cast and down into the resin. Be sure framework is fully seated. Adapt Eclipse Baseplate Resin around and over retentive portion of the framework.



7 Any excess material can be removed by using the DENTSPLY Electric Spatula to score the material along the border of the appliance. The excess can then be easily removed after curing.



8 Paint resin with Eclipse Air Barrier Coating and cure (menu # 3) in the Eclipse Processing Unit. Upon completion of curing cycle, allow the appliance to cool to room temperature before rinsing off Air Barrier Coating.



9 Soak the appliance on the model in tap water for approximately 10 – 15 minutes to re-hydrate the cast and facilitate removal from the model.



10 Remove the appliance from the model and carefully trim the borders. If necessary, place wax bite blocks for bite registration.



11 If a bite registration was taken, be sure to remove any wax using a steam cleaner or clean boiling water. (Note: Always support appliance with model. Do not submerge in boiling water.)



12 Roughen the outer surface of the baseplate with a bur and prepare a butt joint about 1 – 2 mm up from the border.



13 Clean the prepared baseplate with tap water and a brush. Dry, and then clean with isopropyl alcohol and a brush. Allow the baseplate to dry.



14 TOOTH PREPARATION:
Grind in all denture teeth. Be sure to remove any wax on the teeth with boiling water using the DENTSPLY Tooth Cage. Loose teeth can be stored in the Eclipse Tooth Organizer and kept with the case in the case pan.



15 Cut retentive slots into the prepared denture teeth with the 5mm knife-edge diamond bur. (Be sure to also cut a lingual groove across the cingulum of anterior teeth.) Fill the retentive slots with Eclipse Set-Up Resin using the DENTSPLY Electric Spatula.



16 SET-UP AND CONTOUR:
Place some Eclipse Contour Resin into the DENTSPLY Melting Pot set at 870 C. If desired, place some Eclipse Set-Up Resin into the DENTSPLY Conditioning Oven for 5 – 10 minutes to soften. Use only enough Set-Up Resin to set the teeth into position.



17 Remove the softened Set-Up Resin from the Conditioning Oven and place it on to the cleaned baseplate. Be sure to melt the underside of the Set-Up Resin with the Electric Spatula or the Hot Air Gun first before placing it on to the baseplate. Seal the Set-Up Resin to the baseplate with the Electric Spatula or the Hot Air Gun.



18 Set denture teeth down into the softened resin being careful not to trap any air. Do not slice through Set-Up Resin otherwise air may be incorporated into the resin. Carve away any excess Set-Up Resin so that all anatomical contours can be achieved using Eclipse Contour Resin.



19 Once the teeth are set into position, the partial denture may be built to anatomical contours using Eclipse Contour Resin and the DENTSPLY Electric Spatula set at 240°F. When applying Contour Resin, be very careful not to trap any air.



20 The Contour Resin can be smoothed using the DENTSPLY Hot Air Gun. If desired, a gentle stream of compressed air can be used to chill the resin more quickly for carving. (TIP: For easier, faster finishing, it is recommended to "contour-to-finish" instead of "bulk contouring" to finish after curing.)



21 Allow the resin to cool and then carve and festoon using a clean set of your favorite carving instruments. At this point if requested, the partial denture can be sent back to the dental office in an Eclipse Light-Safe Bag for try-in.



22 PROCESS AND FINISH:
When the partial is ready to process, place it back on the model and coat the exposed Eclipse material with Eclipse Air Barrier Coating. Place it into the DENTSPLY Conditioning Oven for a minimum of 1 hour. Do not leave the appliance in the Conditioning Oven for more than 8 hours.



23 After at least 1 hour in the Conditioning Oven, remove and immediately process (menu # 2) in the Eclipse Processing Unit. Upon completion of the curing cycle, allow the appliance to cool down to room temperature before rinsing off the Air Barrier Coating.



24 Rinse off the Air Barrier Coating. If desired, remount on the articulator and verify the occlusion if necessary.



25 Soak the appliance on the model in tap water for 5 minutes to facilitate removal from the model.



26 Finish and polish using your favorite finishing materials.



27 Deliver back to the dental office and the patient.