

Reference Denture Clinical Workflow

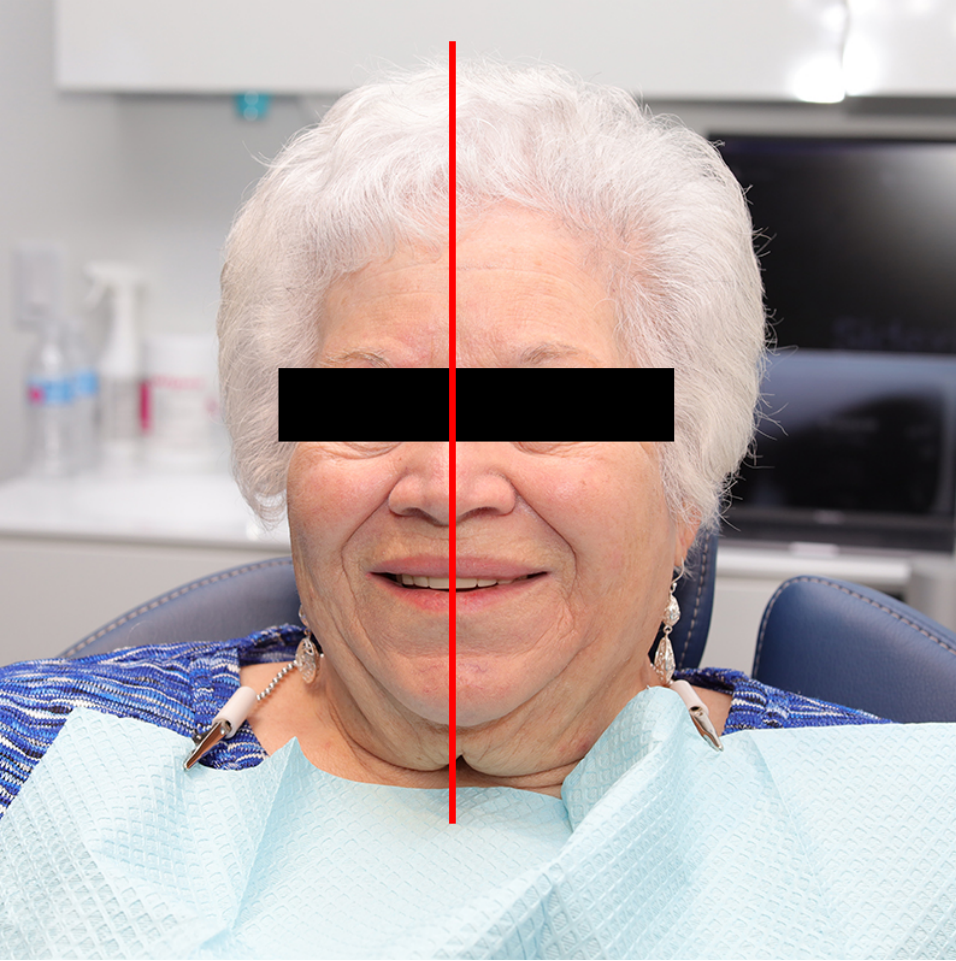
Reference Denture Clinical Workflow

- Definition: A “Reference Denture” is an existing denture that is worn by the patient that will be used as a template for constructing a new prosthesis.
- Workflow Overview (Total Estimated Time (Impression + Records) = 15 minutes)
 - Clinical evaluation of patient and existing prosthesis
 - Removal of any existing liners and adhesives (from both the prosthesis and the patient)
 - Border molding using VPS material
 - Wash impression using VPS material
 - Bite registration using VPS material
 - Measurement recording (“width on curve” or distance from distal-distal of existing canines and central incisor length)
 - Notation of any discrepancies (midline correction) or changes (increase/decrease central incisor length)
 - Scanning of bite registration and impression surfaces
 - Cleaning and return of reference denture to patient
 - **Note:** Never modify a patient’s existing denture

Reference Denture Clinical Criteria

- Criteria For an Acceptable Reference Denture
 - Prosthesis should be intact (not broken, chipped, missing teeth etc.)
 - Normal occlusal wear is acceptable, but avoid using an excessively worn prosthesis
 - Prosthesis should exhibit a generally acceptable plane of occlusion, Camper's plane etc.
 - Borders should be well extended and not excessively (>5mm) short of ideal
 - Base should be stable and free from excessive rocking
 - Mandibular prosthesis should cover the retromolar pads
 - Maxillary prosthesis should cover the tuberosities
 - Midline should be acceptable
 - Prosthesis and patient should be cleaned of any denture adhesives prior to starting

Reference Denture Clinical Assessment



- Midline of reference denture true (or several mm close to true) to midline of face.
- Incisal length is adequate.

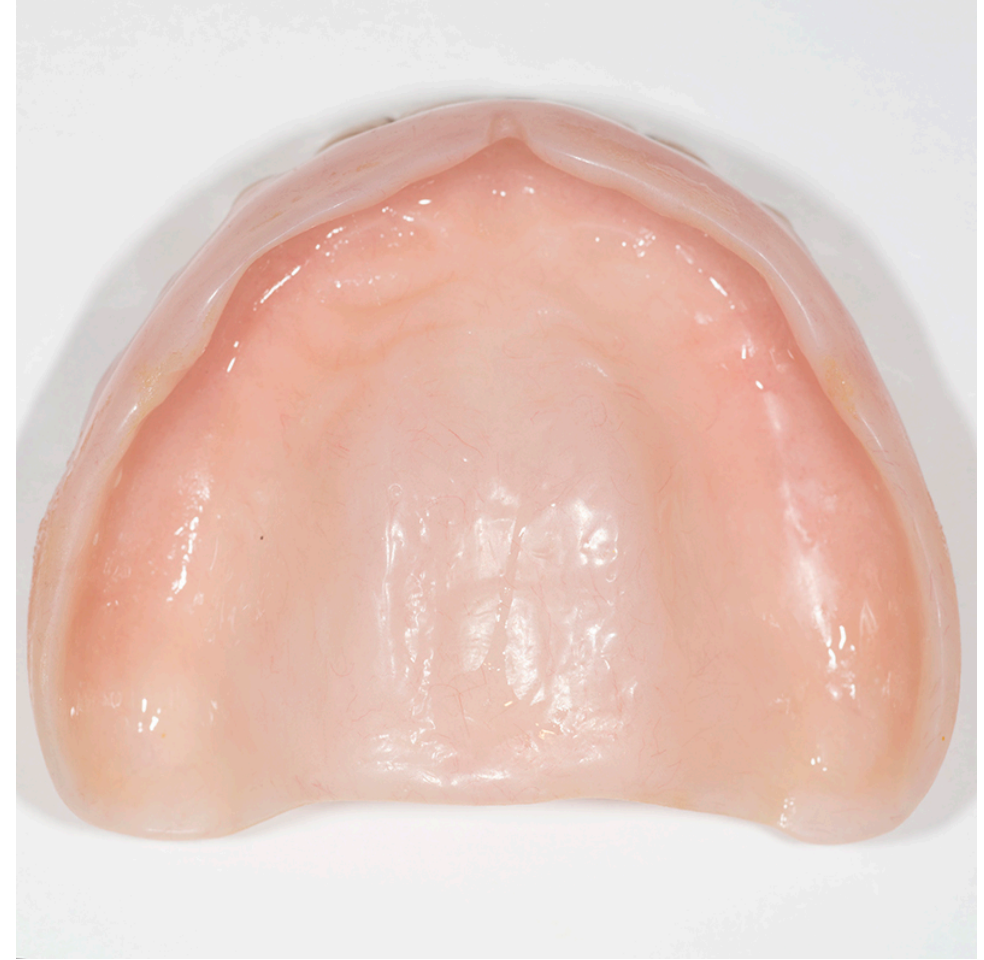


- Occlusion is worn and upper lip fullness could be improved, but adequate to be used as a reference denture.

Reference Denture Clinical Assessment



- Occlusion is worn but still adequate to obtain accurate bite registration.
- Base and teeth are intact.



- Borders are well-extended (not excessively short).
- Base covers tuberosities.

Reference Denture Clinical Assessment



- Occlusion is worn but still adequate to obtain accurate bite registration.
- Base and teeth are intact.



- Borders are well-extended (not excessively short).
- Base covers retromolar pads.
- Will need to be cleaned prior to impression.

Reference Denture Workflow

Apply Caulk® Tray Adhesive

- Using a disposable applicator, apply a thin layer of tray adhesive to the borders.
- Make sure to extend the tray adhesive to the cameo surface of the borders.
- The tray adhesive should be in a thin, even layer, free from pooling.
- Gentle application of compressed air can be used to help evaporate the solvent.
- Aquasil® Ultra+ Smart Wetting® Impression Material should be applied within 30 minutes of application of the tray adhesive.



Reference Denture Workflow – Border Molding



- Apply a bead of Aquasil® Ultra+ **Rigid Fast Set** to the border of the denture.

- Cover the entire border leaving the posterior uncovered.



Aquasil® Ultra+
Smart Wetting®
Impression Material

- Aquasil® Ultra+ has a bench working time of 60 seconds.
- Total set time is 2:30.
- Use of a timer is recommended.

Reference Denture Workflow

Border Mold the Maxillary Denture

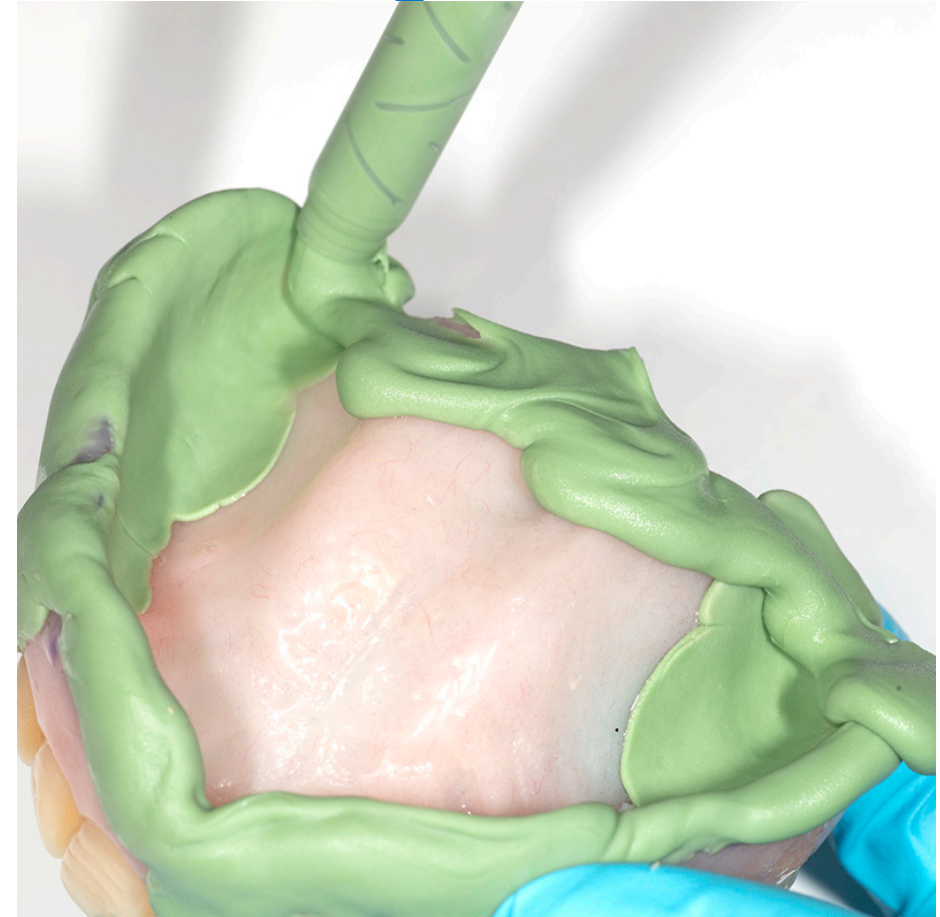
- Seat the the denture and firmly hold mid-palate with a finger.
- Have the patient open and close to record the coronoid process.
- Have the patient move the mandible side to side.
- Manually pull down the left and right cheeks to record the border rolls.
- Manually pull down the upper lip to record the anterior border.
- Have the patient pucker their lips and hold for a few moments to capture the motion of orbicularis oris.
- Keep the denture firmly seated on the aveolus until fully set (2:30 from start of mix).



Reference Denture Workflow – Border Molding

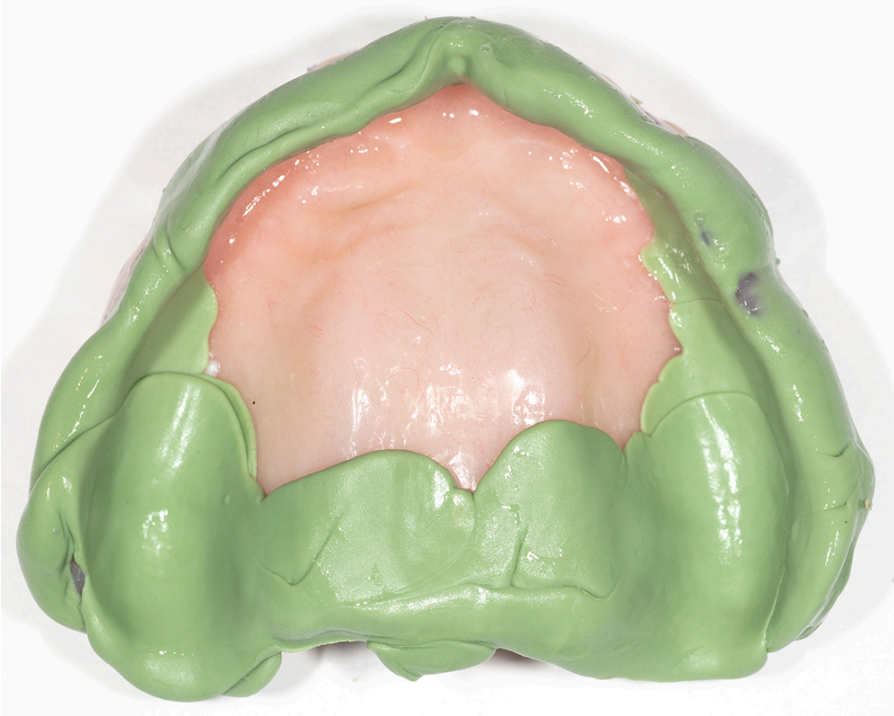


- Completed border molding.
- Note that minor show-through of base is acceptable in the reference denture procedure.



- Apply a bead of Aquasil Ultra+ to the posterior of the denture and re-seat until set to capture the posterior border.

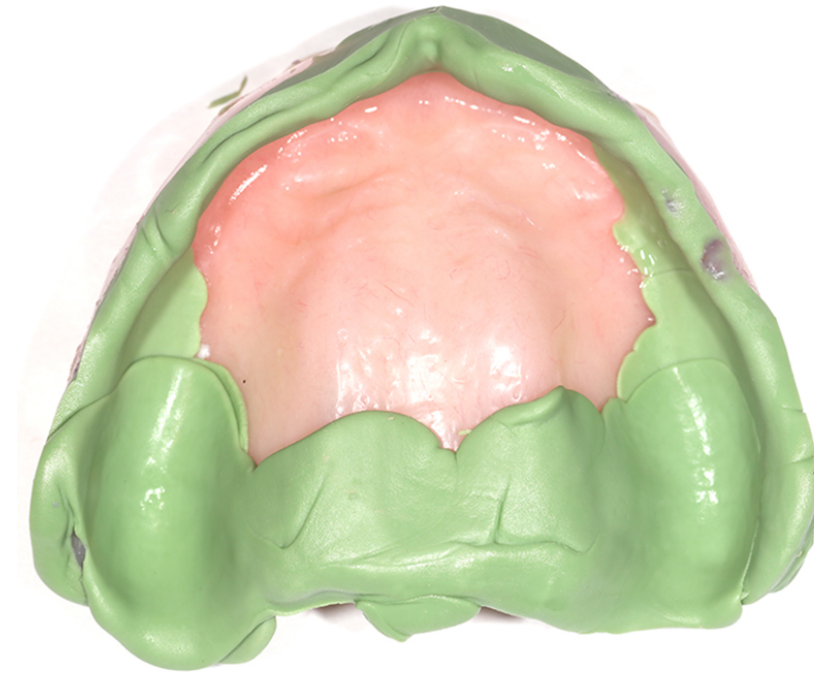
Reference Denture Workflow – Border Molding



- Completed border molding and posterior seal.



- Trim excess material from the cameo surface, maintaining the border roll.



- Final border molding result.

Reference Denture Workflow – LV Impression



- Apply tray adhesive to exposed acrylic.



- Apply Aquasil® Ultra+ **LV** (Low Viscosity) to the intaglio surface of the denture.



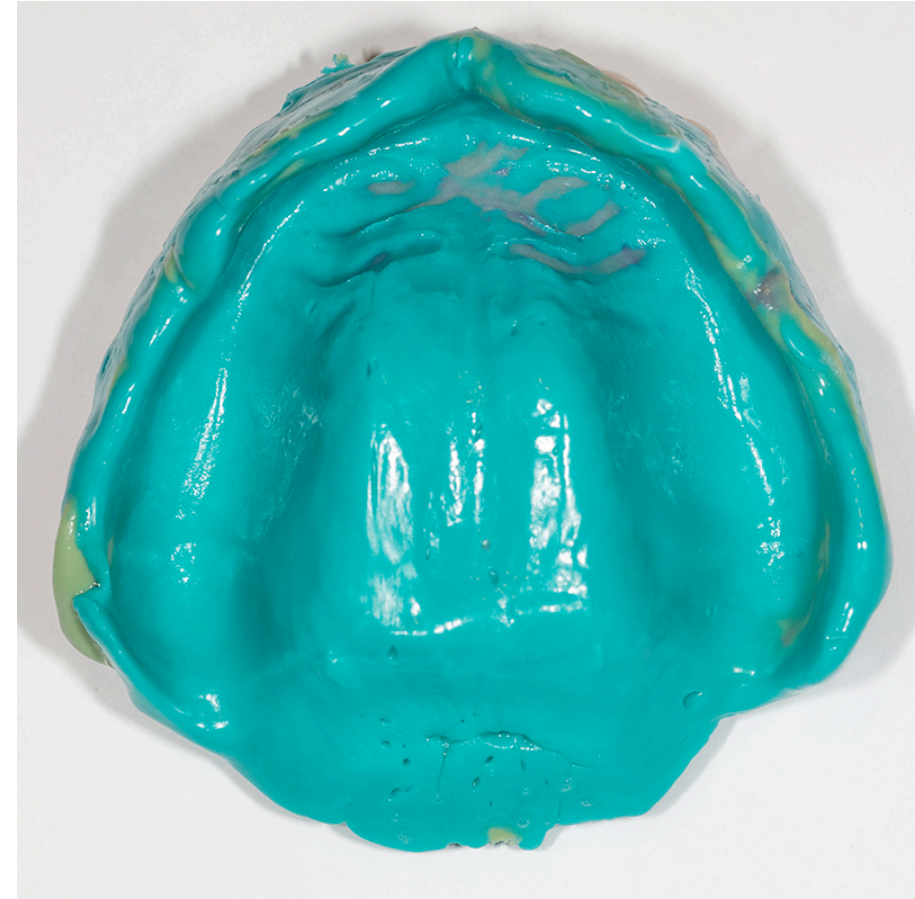
Aquasil® Ultra+
Smart Wetting®
Impression Material

- Aquasil® Ultra+ has a bench working time of 60 seconds.
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Reference Denture Workflow – LV Impression



- Firmly re-seat the denture and repeat the border molding movements.
- Keep denture seated until material is set.

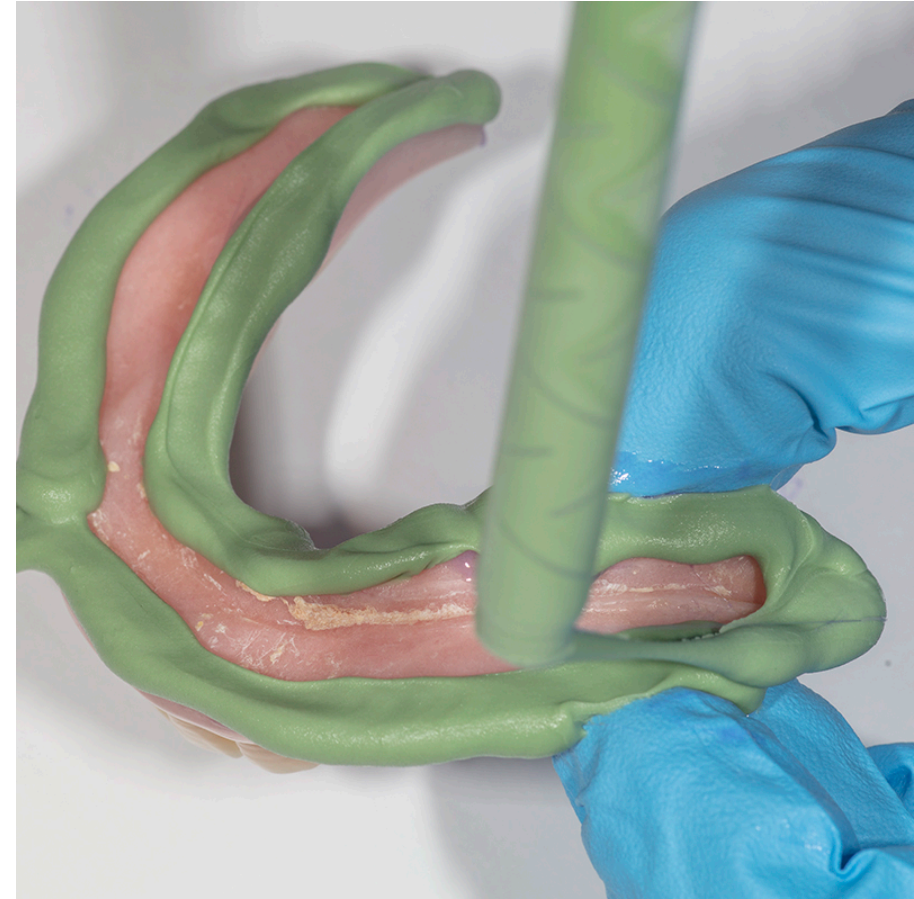


- Final impression. Note well formed borders and complete capture of anatomic details.

Reference Denture Workflow – Border Molding



- Apply Caulk® Tray Adhesive to borders and intaglio surface of mandibular denture. Make sure to cover cameo surfaces near the borders.



- Apply a bead of Aquasil® Ultra+ **Rigid** Fast Set to the denture borders.

Reference Denture Workflow

Border Mold the Mandibular Denture

- Seat the the denture and firmly hold over the posterior teeth.
- Have the patient pucker their lips and hold for a few moments to capture the motion of orbicularis oris.
- Have the patient lick their lips, then move the tongue from side to side.
- Have patient stick the tongue straight out.
- Manually pull down the left and right cheeks to record the border rolls.
- Manually pull up the lip to manually record the anterior border.
- Keep the denture firmly seated on the aveolus until fully set (2:30 from start of mix).



Reference Denture Workflow – Border Molding



- Completed mandibular border molding.



- Trim excess material from the cameo and intaglio surface, maintaining the border roll.



- Final border molding result.

Reference Denture Workflow – LV Impression



- Apply tray adhesive to exposed acrylic. Apply Aquasil® Ultra+ **LV** (Low Viscosity) to the intaglio surface of the denture.



- Completed mandibular final impression.



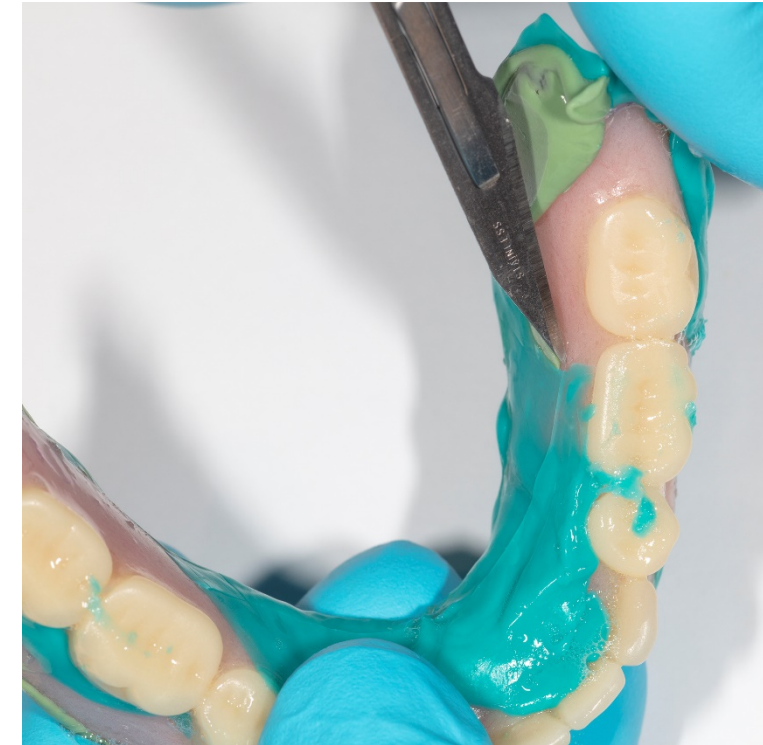
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Impression Material

- Aquasil® Ultra+ has a bench working time of 60 seconds.
- Total set time is 2:30.
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Reference Denture Workflow - Trimming

Trim Excess Prior to Bite Registration

- Using a sharp knife, remove excess wash material from the cameo surface. Ensure impression material is removed from the tooth surfaces. This step is important to ensure proper scanning of the cameo surface of the denture.
- Trim excess material from the cameo surface of the maxillary tuberosity area and the heel area of the mandibular denture. This step is important.



Reference Denture Workflow – Bite Registration

Take Bite Registration Record

- Work with the patient to establish a repeatable centric closure. It should be noted that a patient with a worn existing occlusion may need several tries before establishing a repeatable closure.
- Apply Regisil® 2x Bite Registration to the occlusal surfaces of the mandibular teeth.
- Close the patient into the practiced centric closure.
- Verify the patient has closed as intended and allow the material to set (1:30 from start of mix).



Reference Denture Workflow – Completed

Verify Bite Registration Record

- Check for complete posterior clearance and complete seating of teeth into record on both sides.
- Note: Excess registration material will be trimmed to visualize interocclusal registration and teeth prior to scanning.

