

CAST PARTIALS

Titanium Frameworks Technique

Case Planning:

1. It is suggested that study models be sent to Aurum Ceramic for pre-planning and computerized prosthesis design to determine rest areas and any adjustments needed to dentition.
2. Takes all the guesswork out of the process and virtually eliminates adjustments.
3. Doctor will be provided with a duplicate model on which a survey and design has been outlined with rest preparation suggestions highlighted in a green color. Doctor can request that a custom tray be provided along with the survey and design recommendation.

Impression and Model Tips:

Master Impression

1. Ensure that a full mouth impression is taken with all teeth and anatomical landmarks reproduced.
2. Impression must be fully extended.
3. If for an upper cast partial, make sure that the palate is included in the impression.
4. If for a lower cast partial, ensure full extension of the impression including the retromolar pads.

Bite Registration

1. Ensure bite registration is taken in centric.

Models

1. Die stone mixed with water (NO Hardener) is recommended in a very thick, smooth mix. A thick mix will flow under vibration but does not run like a thin mix. Thickly mixed, the model is harder with less chance of air bubbles.
2. Indication of correct thickness of mixed stone: the mix does not drip or fall off when the spatula is inverted.
3. IMPORTANT: After the impression is poured, DO NOT invert the tray onto a stone paddy. Inverting can cause error. The unset stone will try to sag away from the impression. The degree of sag (if it occurs) will not be visible to the eye, but is sufficient to cause poor fit of the framework. Instead, mound the thick stone on top of the tray and allow it to set. Before pouring the model, place Playdoh (or children's modelling clay) in the tongue area of the lower tray to keep the stone from locking over the lingual flange.

Preparation Requirements:

A. General Principles

- Proper tooth preparation is a must for a successful cast partial restoration.
- Ensure there is adequate reduction for interocclusal space (e.g., minimum 1 mm space for clasp clearance where frame crosses dentition).
- If necessary, ensure there is adequate preparation for rests, guide planes and interocclusal space as indicated by design.
- Guide planes must be parallel and surfaces smooth to ensure easy insertion.

B. Adjustment

- Need for adjustment is rare. However, when necessary, use Aurum Clasp Adjuster between the clasp and minor connector.
- DO NOT twist the instrument and DO NOT use pliers.
- Gradually adjust the clasp step-by-step until the retention is adequate.

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