Technical Reference for the Dentist

What is Valplast®?
Valplast® is a flexible denture base resin which is ideal for partial dentures and unilateral restorations. The resin is a biocompatible nylon thermoplastic with unique physical and aesthetic properties. Valplast® allows your patient’s natural tissue tone to appear through the material, matching the basic shade categories (medium pink, light pink, and meharry). It is also guaranteed for life against breakage (when fabricated and handled according to the manufacturer’s specified procedures).

When should Valplast® be used?
Valplast® may be used whenever you are considering a removable partial denture for your patient. Valplast® provides a fully functional yet aesthetically superior removable partial. The practical invisibility of Valplast® makes the product ideal also for cases when your patient prefers not to go into a fixed restoration or implant, but still wants an aesthetic restoration.

Patients who have worn both conventional frame partials and Valplast® partials report that Valplast® feels more natural in the mouth, is more comfortable because of the thinness and light weight, and gives them more confidence when eating, smiling, and appearing in public because of the excellent retention and aesthetics. Patients with generally healthy mouths can expect many years of use from their Valplast® partials (with many cases in use for over fifteen years without modification). Patients also have remarked on the simplicity and painlessness of fabricating a Valplast® partial.

Valplast® Preparation Techniques
Valplast® uses the Retento-Grip® tissue-bearing technique for retention. No tooth or tissue preparation is needed. The authorized processing laboratory requires only a model poured promptly and carefully from an alginate impression and a counter-model.

A custom tray is normally not necessary. A custom bite and try-in should be taken for accuracy in free-end saddle cases. The laboratory can usually complete a unilateral restoration directly from the first model with the shade and correct bite.

What the Laboratory Does
The authorized Valplast® processing laboratory will design the case on the master model, placing all necessary relief and blocking in wax. They will duplicate the model and wax the case for completion on the duplicate model. After investing and washing out, the teeth will be prepared for mechanical retention. The Valplast® resin is injected into a closed flask. After the case is deflasked, it is finished and fit on the master model, polished, and packed in water for delivery to your office. The accompanying guaranty slip shows that the case was completed in Valplast®

Insertion Techniques for Valplast®
After unpacking the case, and immediately prior to insertion in the patient’s mouth, immerse the case in very hot tap water. Leave the case in the water for about one minute. Remove the case from the water and allow it to cool just to the point where it will be tolerated by the patient. Gently insert the case in the mouth.

The hot water treatment permits a very smooth initial insertion and a good adaptation with the natural tissues in the mouth. If the patient senses any discomfort because of the tightness of a clasp, the clasp may be loosened slightly by immersing that area of the partial in hot water and bending the clasp outward. If a clasp requires tightening, the clasp area may be immersed in hot water and bent inward to tighten.

If any reduction is needed due to persistent irritation, the resin must be handled differently than acrylic. We recommend the use of Green Mounted Stones (like those used for porcelain adjustment). Use a fairly light touch with a handpiece rotating between 20K and 30K RPM’s. The resin will melt if there is prolonged contact with a bur or wheel, therefore it is essential to move the instrument over the surface continuously.

If there are any threads remaining, these can be removed with a sharp blade. Any roughness on the surface can be smoothed with a brown rubber wheel.

The surface may be repolished after rubberizing (if needed) using coarse pumice or Acrylux 150®, brown tripoli, and the Val-Shine polishing compound.

The grinding tools, Valplast® knife, and polishing agents can all be obtained directly from Valplast International Corp. and may be available also through your laboratory.
**Preparation for adding a tooth to a Valplast® Partial**

With the case in place in the mouth, take an alginate impression. Carry the case over in the impression. It is essential to remove all pastes or adhesives from the tissue-surface of the case before pouring the model. Pour the model promptly and forward it to the laboratory with instructions to add the missing tooth or teeth and retention (if necessary).

The laboratory will utilize either a welding technique (for small repairs) or an injection technique (for larger repairs and retentive additions). Any addition can be made to a Valplast® partial.

**Preparation for a Reline**

Individual saddles can normally be relined using the injection repair technique (by a Valplast® laboratory). In the case where an overall reline is indicated, the case is normally jumped into a new base.

Take a rubber base impression under the case in a closed-mouth condition. Then take an overall alginate impression. Pour the model promptly. Forward the model to the laboratory.

The laboratory will register the position of the teeth with a plaster matrix and remove the base. A new base will be waxed up and reprocessed using the existing teeth.

Follow the same procedure for inserting a jumped or repaired as you do for a new case, first immersing in hot water.

**Recommendations for Patient Care:**

Like any removable prosthesis, the patient should be instructed to utilize good hygienic practices to maintain the appearance and cleanliness of the Valplast® restoration. The prosthesis should be soaked overnight at least three nights a week in Val-Clean™ Denture Cleaner. Or, the patient may immerse the case in Val-Clean™ Denture Cleaner daily for about 10-15 minutes. The case should be rinsed before reinserting it in the mouth.

The cleaner is available from Valplast International and many processing laboratories.

**Special Applications of Valplast®**

Valplast® is effectively used in its unpigmented form for TMJ splints. Its unbreakability and strength make it ideal for a splint.

Valplast® can be used in full dentures when the patient has protuberant bony structures or large tuberosity which would normally need to be reduced to allow the insertion of a rigid denture base.

Valplast® is an ideal alternative for full and partial dentures when the patient has an allergic reaction to acrylic monomers.

Valplast® can be used in combination with a metal frame to allow the aesthetic benefit of Valplast® replacing the buccal arm.

Valplast® can be used in cosmetic veneers to mask gingival recession in a variety of situations, including implants.

Valplast® is an ideal material for all removables in cases where the patient is prone to breaking his or her denture or partial.

Valplast® solves many difficult treatment problems involving periodontally involved teeth, sensitive teeth, cancerous mouths, or other conditions in which the teeth are compromised, or comfort is problematic. Valplast® is also ideal in mouths with high torus or cleft palate conditions.

To speak to a Technical Service Representative call:

**1-800-843-2861**

7:30 am to 5:30 p.m. Eastern Time
E-mail: support@valplast.com  WEB: www.valplast.com

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