

CLINICAL AID

Accurate Band Positioning in Impressions

Many techniques have been developed to stabilize orthodontic bands in the precise positions required to insure proper indirect construction of an appliance on the working cast. Although sticky wax has traditionally been used to lute the bands in key positions, it may not always provide adequate adhesion, especially in a wet environment such as an alginate impression.

Another alternative involves placing short sections of .020" stainless steel wire to index the bands into the impression material. After the cast has been separated from the impression, but before appliance fabrication, the protruding wires are trimmed from the model with a wire cutter. If a wire segment is not positioned passively, however, it can push the band deeper into the impression and thus affect the fit of a finished appliance.

A simple and more reliable method is to apply a drop of Instant Krazy Glue* (ethyl cyanoacrylate cement) or Maxi-Cure Extra Thick Glue** (cyanoacrylate ester cement) at the mesial and distal margins of the orthodontic band where it contacts the impression material. Maxi-Cure, a more viscous material that sets in 15-30 seconds, is less apt to flow away from the area of application. It may be



preferable to apply this cement by dipping the wooden end of a cotton swab into the bottle of adhesive. The cotton tip can subsequently be used to remove any excess cement from around the band. A light application of petroleum jelly around the mouth of the bottle will help prevent the cap from adhering to the bottle between uses.

The alginate impression should be dried, particularly at the site of band placement, to insure adequate adhesion. This technique works especially well with the more accurate impression materials, such as hydrophilic polyvinyl silicone.***

After the dental cast has been separated from the impression, a few tags of impression material will still adhere to the bands. These tags can be easily polished away during the finishing stages of appliance construction.



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*Instant Krazy Glue, Elmer's Products, Inc., Columbus, OH.

**Maxi-Cure Extra Thick Glue, Bob Smith Industries, Atascadero, CA.

***Aquasil Monophase, Dentsply Caulk, P.O. Box 359, Milford, DE 19963.