

## Thermoplastics

### Various applications of Bite Buddy and Temp Tabs thermoplastic wafers

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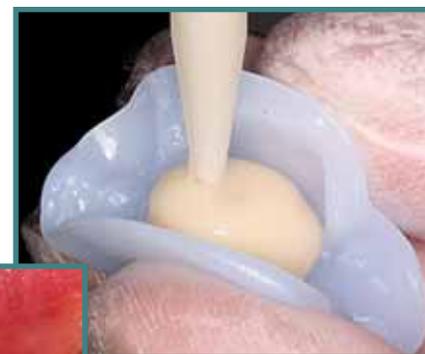
Following are four applications of **Temp Tabs** (smaller) and **Bite Buddy** (larger) oval thermoplastic wafers. If the clinician usually wears vinyl gloves, have a pair of latex gloves handy for manipulating the thermoplastic; it sticks aggressively to vinyl. A small, inexpensive electric water pot provides a convenient means to have hot water present.

#### Creating temporary crowns

*Note:* The tooth to be crowned must exhibit a serviceable shape prior to tooth preparation.

1. Place a Temp Tab in hot water and wait one minute for it to go from opaque to clear.
2. Pick up the wafer using college pliers. Roll it into a ball and finger-form it around the tooth to be restored. Apply firm finger pressure while the material cools. (*Note:* Cooling can be accelerated by air or water spray.)
3. Within two minutes, a rigid but flexible record is created.
4. Prepare the tooth.
5. Flow the bisacryl material of choice into the matrix (Fig. 1).  
*Note:* Keep the mold in case of a lost or broken temporary crown.
6. Place the filled Temp Tab impression over the preparation.
7. Trim the provisional using a No. 15 blade (Fig. 3).

Fig. 4 shows the completed temporary crown.



**Fig. 1** Load the cooled Temp Tab impression with bisacryl material.



**Fig. 2** Place Temp Tab wafer over preparation.



**Fig. 3** Trim provisional using a No. 15 blade.



**Fig. 4** Completed temporary crown.

#### Thermoplastic: 'The Dentist's Buddy'

We're a materials-oriented profession. Given the modern-day complexities of dentistry, it's commonplace to have shelves in your practice stocked with more materials than you ever imagined. So, it's great to find a single material that can satisfy several needs.

Enter thermoplastic.

- You can handle and place it without a tray or dispensing gun.
- As it sets, it offers sustained recording ability but remains firm enough to be sensed by opposing dentition.
- If desired recording is not achieved, you can backtrack by re-heating and re-placing it. There's no need to discard it for new material.

In addition to all these benefits of thermoplastics in gen-

eral, Temp Tabs and Bite Buddy, in particular, also exhibit flexibility. They are easily removed from undercuts without injuring soft tissue, but continue to retain their new shape. When immersed in hot water, they go from rigid-yet-flexible and opaque to moldable (Silly Putty-like consistency) and translucent. When cooled, they return to their original rigid-yet-flexible, opaque state—but now in their new molded shapes.

The applications for these thermoplastics are many. After becoming familiar with their properties, the imaginative practitioner will certainly conjure up more uses. —M.G.



**Fig. 5** Cooling Bite Buddy bite registration during partial denture fabrication.



**Fig. 6** Cooled, stable bite record.



**Fig. 7** A “trayless,” one-piece bite registration.



**Fig. 8** Bite positioning jig used to preserve jaw relations during triple tray impression.



**Fig. 9** Establish an open bite vertical using a Temp Tab thermoplastic wafer.



**Fig. 10** Inject Jet Bite polyvinyl paste between opposing arches.

### Taking a bite record

A bite record is needed for a partial denture case.

1. Place the Bite Buddy thermoplastic wafer into hot water to soften. Retrieve it and shape into a “hot-dog” formation.
2. Gently lay the softened, shaped wafer over the lower dentition.
3. Guide the patient into proper occlusion.

*Note:* For an entire arch, the thermoplastic must be allowed to cool thoroughly to avoid distortion upon removal from the mouth (Fig. 5).

4. After cooling and removing the bite record, confirm its accuracy in the mouth (Fig. 6). If satisfied, the patient returns to the recorded position. If unsatisfied, reheat and replace.
5. Use a lab acrylic bur to remove fins and undercuts (Fig. 7).

### ‘Triple-tray’ impression

Prior to local anesthesia, use a warmed Temp Tab to form a small confirmation bite jig. *Note:* It will provide positive feedback when the numb patient is asked to occlude into the always-yielding impression paste. Having rehearsed the “feel” of the bite with the newly reshaped Temp Tab, the patient and clinician are assured of accurate jaw repositioning during the impression process. The bite jig simply becomes part of the impression (Fig. 8).

### Bruxism splint

An open bite positioner can be fabricated prior to taking a bite registration.

1. Place the cooled thermoplastic over either the upper or lower incisors and ask the patient to close. *Note:* The thermoplastic cools until it is firm, but still malleable to simplify handling.
2. When contact with the opposing dentition is noted, have the patient cease closure.
3. Have the patient slowly close against the thermoplastic until a 2-mm posterior occlusal clearance is visible. *Note:* The resistance of the partially cooled mass makes this possible.
4. On reaching the desired opening, completely cool the thermoplastic (Fig. 9).
5. Confirm the closure pattern by multiple test closures. If unsatisfied, simply reheat and replace.
6. Finish the record by injecting Jet Bite bite registration paste (Coltène/Whaledent) (Fig. 10).

Fig. 11 shows the completed bite record. Fig. 12 shows the resulting bite splint.



**Fig. 11** Completed bite record.



**Fig. 12** Completed bite splint.