

QUICK TECHNIQUE

Impressions: Going With the Flow

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The use of vinyl polysiloxane (VPS) materials has become routine because they are easy to use, accurate, and faster setting than impression materials dating back to the age of rubber base.

The primary function and design of any impression material is to transfer information from the chairside clinician to the laboratory technician, who will fabricate the restorations. Consequently, as I have often remarked, the “best” clinician with the most ideal preparation in combination with the “best” technician utilizing the finest porcelain is at the mercy of the impression process.

Our laboratory colleagues often complain that the dentist is using a material that is dimensionally unstable, and there is tearing at the critical margins. From the patients’ perspective, impression materials often taste bad and take too long to set in their mouth. Dentists complain about insufficient working time, difficulty in handling, and having a “runny” material.

If you were to add up all the negatives, you would soon realize that using an inferior material could result in lost chair time, lab time, and patient time and diminish patient confidence. We are all being held “hostage” to the quality of the material used for the impression.

Clearly, there was a need to create a more viable material that would ultimately address these legitimate concerns. This “ideal” material would offer the patient, dentist, and technician a product that is aesthetic, functional, and durable for an extended period. All of us are constantly bombarded with new materials. Ultimately, we must choose one with which we feel most comfortable and is most tolerable for our patients. The wide arrays of VPS materials on the market today

all address the issues of bad taste, tearing at the margins, and smell that were often associated with polysulfides and polyethers. So how do we go about selecting a material that will consistently work well?

Accuracy, technique sensitivity, and stability are the benchmarks by which all impression materials are measured. In addition, there are other important qualities such as setting time, working time, tear resistance, taste, and flexibility to be considered when choosing an impression material.

Hereaus now offers 2 new viscosities for its Flexitime VPS impression material line: Medium Flow and Light Flow. Both possess the following characteristics important for creating the ideal impression.

1. *Hydrophilicity.* To create an accurate impression in a moist field, both Light Flow and Medium Flow offer hydrophilic characteristics like a polyether with an extremely low contact level similar to that found in a traditional polyether material

2. *Reduced setting time.* While the actual setting time should be fast, it should not be at the sacrifice of working time. Ideally, the material should set as a reaction to the temperature of the patient’s mouth. Thus, the unique Advanced Thermasense Chemistry found in Flexitime impression materials is different from all other VPS material.

3. *Easy mixing, good tear strength, and dimensional stability.* With the advent of automix materials, there is no

longer any excuse for not having a perfect mix ratio. Whether by syringe or automix machine, it is simple to achieve a perfect mix. As to tear strength and dimensional stability, these VPS materials offer great toughness that will prevent distortion and unwanted tears at the margins upon removal of the impression from the mouth. Dimensional stability of the set impression should be for an extended period

of time to all for the receipt and use by the laboratory. Ideally, no longer than 2 weeks should transpire from impression to pouring by the laboratory.

There is little doubt that you can now take reliable impressions in even the most adverse conditions without sacrificing detail or accuracy. Both of these new wash materials have thixotropic properties that prevent the material from dripping or running off the tooth, and they both provide excellent hydrophilicity and dimensional stability to help clinicians achieve accurate fitting restorations.

Depending on the number of prepared teeth or abutments and the desired viscosity of the operator, there is a choice. For example, Flexitime Light Flow might be best suited for a 2-step, putty-wash technique, while the Flexitime Medium Flow might be more ideal in a double-mix technique. Both are available in automix cartridges that allow for proper mixing with no cross-contamination of base and catalyst. Simply disposing the used mixing tips and autoclaving the dispensing gun allow for easy cleanup and sterilization.

Whether the technique involves a single-quadrant tray or a double-arch impression technique, Flexitime offers users a variable working time of one to 2.5 minutes. In all instances, the impression sets in the mouth in 2.5 minutes or less.

With so many VPS impression materials available today, the dentist often has a difficult time in deciding which material to select. Ultimately, he or she should select a material that works well in his or her hands and is easy for the patient to tolerate. The bottom line is that a poor impression cannot lead to anything but a poor restoration. Therefore, in making the decision of what material to use, it is incumbent upon the dentist to make a selection after considering the factors discussed in this article. Practitioners must be able to utilize a material they can expect to enhance the result of the aesthetic, restorative procedure. Flexitime VPS materials allow for a wide range of techniques, simplification of the impression process, and excellent accuracy.

For more information, call **Hereaus** at (877) 258-5937 or visit the Web site located at hereaus-dental-us.com.



Figure 1. Molar preparation ready for impression; field is slightly moist.



Figure 2. Flexitime Heavy Tray with Medium Flow impression with good marginal detail.