How to achieve simplicity and predictability in using bulk fill composites

How the SonicFill 2 system facilitates optimal results in posterior restorations.

by Mattia Marelli, Product Manager, KerrHiawte SA

While not a new concept, the popularity of bulk fill composite materials has grown rapidly in recent years. And, it is easy to understand why: these products reflect an unmet need to simplify one of the most tedious and exacting dental procedures—posterior resin composite restorations.

KaVo and Kerr addressed this need by leveraging their respective areas of expertise to deliver SonicFill, a posterior composite system that improves adaptation, provides better sculptability, lowers shrinkage stress, improves curing characteristics, and has the strength, durability and aesthetics one would normally expect from a posterior composite.

SonicFill is the only bulk fill composite able to combine all the placement advantages of a flowable with the strength of a highly filled resin composite, in a single material. Kerr’s SonicFill composite incorporates special modifiers that react to sonic energy delivered by the KaVo handpiece. These modifiers dramatically lower the viscosity of the composite during placement, providing superior adaptation to the cavity walls and reducing the voids, gaps and seams typically found between composite layers. The composition also returns to a non-slumping, sculptable state, making contouring anatomy fast and efficient.

Along with a 5 mm depth of cure and less shrinkage stress than a layered composite, SonicFill allows dentists to reliably place most posterior restorations in just one step.

KaVo, a Danaher company, and part of the KaVo Kerr Group, is one of the world’s leaders in dental and endodontic equipment and instrumentation. “Customers talk, we listen,” is the driving force behind all new product introductions, and the reason the KaVo Kerr Group maintains this market leadership position today. SonicFill is KaVo Kerr Group’s response to the clearly articulated customer need for a reliable and easy placement technique for posterior restorations without clinical compromise.

Customers have enthusiastically embraced the SonicFill system, finding that it makes appointments less stressful and outcomes more predictable—benefiting both the doctor and the patient.

KaVo Kerr Group is committed to supporting and expanding its exclusive innovation all around the globe, and is happy to announce SonicFill 2, to be introduced in the first half of 2015. SonicFill 2 offers improved aesthetics and even easier making a product so many clinicians have come to love even better. More importantly, it retains all of the important characteristics that make it safe and effective as a single-step posterior composite system.

If you have not had a chance to view SonicFill, make sure you take the time to try it. You will see why so many doctors claim they would not want to practice without it, and why it is responsible for so much of the growth in popularity of the bulk fill composite category around the world.

First in quality brings next-generation instruments

Highlighting the latest from KaVo instruments: MASTErmatic and MASTErtorque Mini

In this interview with Andreas Thanner and Thomas Birx, Senior Product Managers at KaVo, get into some of the details behind the MASTErmatic release and its importance to the overall handpiece category.

KaVo introduced the MASTErmatic series at the 2015 International Dental Show. Why is this a meaningful launch for KaVo?

With the launch of the new MASTErmatic series, KaVo will cement its role as the leading innovator in the premium segment. The MASTErmatic series has a new design and new product features and will—after 12 years—replace the premium GENTLEflower series.

What is the most significant improvement to the MASTErmatic series?

Without a doubt, the head size reduction of the speed-increasing instrument MASTErmatic M55 L is our most important achievement. After hundreds of interviews with dentists all over the world, the biggest problem was the most mentioned product feature.

We were able to reduce the head volume, which means head height and head shape, by 20 per cent, and with the combination of the KaVo exclusive 100-degree head angle and the triple gear system, we’ve improved tremendously the access and view of the treatment field. In addition, we added the speed-increasing instrument MASTErmatic M55 L Mini to the series with an even 43 per cent smaller head by volume. This is specially designed for short shaft burs, so if the dentist is facing a situation where not enough space is available such as for treating paediatric or elderly patients this is the instrument to use.

What are the other new features?

MASTErmatic instruments belong to the Master series, which makes them the pinnacle of innovation. One valuable new feature is the changeable water filter, which gives the dentist the ability to change the clogged water filter easily by him or herself. Therefore, the instrument doesn’t need to be sent in for repair and the dentist has zero instrument downtime. It is also the only speed-increasing instrument in the market with a triple gear system, delivering a smooth and vibration-free performance. Some users will notice that we adapted the MASTErmatic design to the well-received MASTErtorque turbine, introduced at the last IDS.

What else makes KaVo the leading innovator for dental handpieces?

Over the years, KaVo has registered over 2,200 patents. Our ideas come directly from listening closely to customer needs. For example, the carbide bur guide for speed increasing instruments guides the dental burs and guarantees the best concentricity and durability, especially during crown or bridge cutting. The bur guide got assembled in over 1 million instruments, so this proves that our customers appreciate such unique features.

Maintenance requirements for dental handpieces are getting stricter. How does this affect KaVo instruments?

We are very well prepared. For years, KaVo has upheld a very high internal standard. Internal tests are up to four times longer than required. The well-known KaVo Plasma-coating guarantees excellent hygiene and a perfect grip, even after years of use.

What is the Direct Stop Technology (DST)?

The DST is an active brake system that stops the bur within one second. This is a major safety feature to secure that there is no rotating bur, when the dentist removes the turbine from the mouth or when they want to change the bur very fast.

Another big advantage is that when the patient makes a fast movement, the risk of contacting the cheek with the rotating bur is significantly reduced. With this safety feature there is no need to avoid working with a turbine and the dentist can get the full advantages of a light turbine and the special haptic advantages.

A further technical point is that the DST stops the suck back of aerosols into the turbine.