

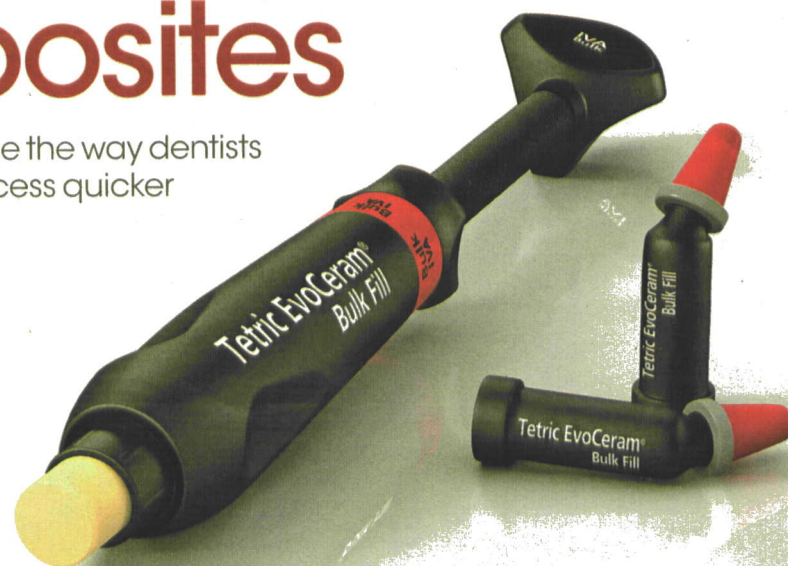
THE TAKE-AWAYS

- Tetric EvoCeram Bulk Fill was developed to make placing posterior composite restorations easier and more efficient.
- This one material bulk fill offers the esthetics and physical properties necessary for a high-quality restoration.

A new way to think about posterior composites

Ivoclar Vivadent's new Tetric EvoCeram Bulk Fill may change the way dentists do direct posterior composite restorations, making the process quicker and easier. Here's a look behind the development process.

by RENEE KNIGHT, SENIOR EDITOR



A DPR SPECIAL REPORT

Our award-winning editorial team turns our door into the industry into a window on the product development process.

ABOUT THE AUTHOR

Renee Knight is a senior editor with Dental Products Report, and has been part of the DPR editorial team for nearly 5 years. She is an award-winning journalist with a



BSJ from Ohio University's E. W. Scripps School of Journalism and a MSJ from Northwestern University's Medill School of Journalism.

Dr. Michael R. Sesemann and his team can't imagine going back.

For more than 20 years, they've used the incremental placement technique for direct posterior composites in an effort to minimize polymerization stress, and that meant using three different composites to finish a restoration. This is a very labor intensive process, Dr. Sesemann said, and isn't fool proof. Even though he took these steps to minimize shrinkage, he often still ended up with a white line here or there from the material shrinking.

Recently, Dr. Sesemann has been looking for an easier protocol, one that would give him the quality esthetics he's after along with the metrics that are so important to a posterior composite—durability, minimal shrinkage, good marginal adaptation and easy placement. A few months ago, he found it in Ivoclar Vivadent's new Tetric EvoCeram Bulk Fill composite.

"It was an answer to our prayers because all of a sudden here we are still taking the same rubber dam isolation approach, still bonding like we always did but all of a sudden we're treating the tooth surface with a bonding material of our choice, then placing this material and in some cases filling it from top to bottom and curing it," he said. "It's almost like we haven't done enough to justify our time and fee, it's so much easier. It's been surreal for my staff and I in doing this. And a good surreal I should say."

Ivoclar Vivadent launched what Dr. Sesemann describes as a "revolutionary advancement in posterior dentistry" at the Greater New York Dental Meeting in

November. This material was developed to streamline the posterior composite placement procedure, to offer an option that is faster and easier to apply but that also maintains the integrity of the composite restoration.

What it does

The team at Ivoclar Vivadent first started talking about the concept of a one-material bulk fill technique about six years ago. Over the years, the company has received requests from dentists asking for a composite filling material that's easier to use, or an easier overall process, VP of Marketing Dr. Michael Gaglio said, and those requests were the motivation behind Tetric EvoCeram Bulk Fill. The team at Ivoclar Vivadent wanted to create something that was easier to incorporate into routine treatments such as Class II posterior restorations, while maintaining or even increasing reliability.

At the beginning of the development process, they wanted the research to go beyond just what they were hearing from dentists who were contacting the company directly. They wanted to focus in on exactly what dentists wanted in a posterior composite, and they wanted to hear from a variety of voices. To get there, they held focus groups, and the research team talked with many different types of dentists, from general

The benefits

Here's a breakdown of Tetric EvoCeram Bulk Fill's main benefits:

- Its smooth consistency provides optimal adaptation to cavity walls without the need for a flowable liner, resulting in excellent marginal integrity.
- Cavities can be "bulk" filled and contoured immediately without the need for a final layer or additional equipment.
- Patented Polymerization Booster enables 4 mm thick layers of the material to be cured in 10 seconds.
- Its Shrinkage Stress Reliever results in low shrinkage and low shrinkage stress.
- Its Light Sensitivity Inhibitor slows down the polymerization process under operating light conditions, but does not prevent polymerization under the intensive blue light of polymerization units. The material stays soft and sculptable until it's ready to be cured.
- Lower composite shrinkage leads to tight interproximal contacts.

WEB EXCLUSIVE

For an interview with Direct Restoratives Marketing Manager Lisa Zimolong discussing Tetric EvoCeram Bulk Fill at the Greater New York Dental Meeting, visit dentalproductsreport.com.

7 minutes

The amount of time Tetric EvoCeram Bulk Fill saves versus Tetric EvoCeram when sculpting a Class II restoration.

Source: Ivoclar Vivadent TEC Bulk Time Saving study.

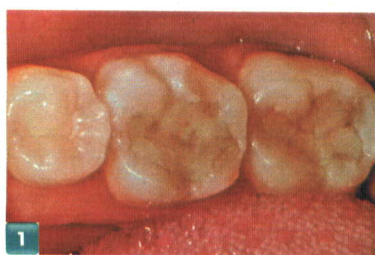


Fig. 1 Pre-operative view.



Fig. 2 Remove fillings and apply adhesive.



Fig. 3 Place Tetric EvoCeram Bulk Fill in one layer.



Fig. 4 Light cure for 10 seconds.

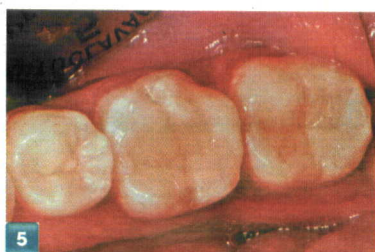


Fig. 5 Polish the restoration.



Fig. 6 The restoration one week post-op.

practitioners to specialists to academic researchers, said Chet Spivey, Director of Marketing for Clinical Products. They wanted to get a balanced perspective about what was most important, and no matter what type of dentist they talked with, they all pretty much wanted the same thing.

“A lot of dentists out there don’t like doing composite restorations because they have to layer the material,” Spivey said. “It’s time consuming and eats away at chair time. They said they wanted to make the technique faster, but they layer for a reason, and that’s to maintain integ-

riety. They wanted a way to bulk fill the restorations and still have integrity.”

After years of research and development, the team came up with a material featuring managed working times and a new light initiator that allows it to fill cavity preparations up to 4 mm in one layer applications, and be sculpted and cured without the need for a capping layer, Dr. Gaglio said. The material is comprised of layered silicates that produce a smooth and adaptable consistency, and that means there isn’t a need for a flowable liner. The new Polymerization Booster ensures the complete curing of 4 mm

thick increments in 10 seconds, Dr. Gaglio said, and the material’s Shrinkage Stress Reliever decreases overall shrinkage volume experienced during polymerization. That means clinicians like Dr. Sesemann reduce the chance of a white line at the margin that could compromise esthetics, or shrinkage that might lead to cracks, gaps, leakage or post-operative sensitivity.

Bulk fill composites represent a newer category of filling materials, Spivey said, and while there are some very good products out in the market, they all involve some sort of compromise, whether that means ending up with a gray restoration because the composite had to stay translucent for curing, adding an extra step to the technique to put a top capping layer on for improved esthetics and wear, or buying a separate device designed to change the consistency of the material so it can fill floor to ceiling and is easy to manipulate and sculpt. The team at Ivoclar Vivadent wanted to eliminate all of these challenges with this Tetric EvoCeram Bulk Fill.

“We’re marketing this as no compromise,” Spivey said. “You don’t need the handpiece. We have stress relievers that absorb stress. We have patented initiators that allow us to cure floor to ceiling without effecting the working time or esthetics. It’s a true one material bulk fill composite. And while this category includes very good materials, this is the first time a dentist isn’t really compromising. We’re very rarely first on to the market in any category, and the reason for that is we’re always looking to provide unique features so dentists don’t have to compromise.”

The benefits

For Dr. Sesemann and his staff, the biggest benefits Tetric EvoCeram Bulk Fill has brought to his restorations are reduced shrinkage and adaptability. It adapts well, resulting in very good margins. It has consistency so in some cases Dr. Sesemann can fill up a restoration, sculpt the material and cure it without any further preparations.

With the old technique, he needed to use a 4th generation bonding material to create a strong hybrid layer to avoid post-op sensitivity, but with Tetric EvoCeram Bulk Fill he can use 5th (total etch) or 7th (selective etch) generation bonding agents, giving him more flexibility and saving him time. It also takes less time to

cure and place the composite. When you take everything into account this material saves him 25% to 30% of the time it used to take him to complete a direct posterior composite, Dr. Sesemann said.

“That’s a big deal for the average dentists out there who have found they cannot implement a difficult protocol for posterior composite placement in their practice because they can’t allot that much time or charge their patients that much to make it work in their business model,” Dr. Sesemann said. “But with this material they have something they can serve their population with and create an excellent filling with an easier protocol and less financial outlay that keeps their fees perhaps too high for their patients’ liking. And they can deliver exceptional work.”

Dr. Sesemann’s patients really haven’t said much about the new material, but he said their silence is a good sign. He’s placed about 30 restorations in eight different cases with the material, and not one patient has come back with a complaint about post-op sensitivity.

“For so many years we in the dental field felt we had to master the bonding technique to reduce post-op patient sensitivity, when in reality we weren’t accurately taking into consideration polymerization shrinkage and its effect,” Dr. Sesemann said. “So now that we have polymerization shrinkage somewhat under control, my patients haven’t said a word. That means the fillings are feeling great, which makes us happy.”

The development process

No matter what the product is, developing a new dental product is a complex process that typically requires several years, said Dr. George Tysowsky, VP of Technology. The process includes idea conceptualization, focus groups, creating prototypes, the upscaling process and validation studies. And the people behind each step are vital to ensuring a

Shade simplicity

Tetric EvoCeram Bulk Fill is available in three universal shades – A, B and a white shade, Chet Spivey said, because that’s all this material needs.

“They just blend very well for that natural chameleon effect,” Spivey said. “When talking about posterior composite we’re talking about productivity in the dental office. So many of these doctors just want to get in and get out. It’s all about productivity, which is part of the product profile. It has to look good but it also has to be able to produce.”



Fig. 7 Before view of tooth Nos. 12 and 13.



Fig. 8 After view of tooth Nos. 12 and 13 (MOD) direct composite restorations with Tetric EvoCeram Bulk Fill.

Photos courtesy of Dr. Michael Sesemann.

successful outcome, from the chemists to the engineers to the in-house and independent researchers to the marketing department. Tetric EvoCeram Bulk Fill went through each of these steps, steps that Dr. Tysowsky said are important to validate the efficacy of the final product as well as influence a project's timeline, outcome and likelihood that it will meet customer and patient expectations.

New product innovation is critical to Ivoclar Vivadent, and they continually invest into research and development.

"We believe in the value of R&D in both the short and long term. We understand the needs of our customers and closely follow a clear vision based on these needs. As a result, we can define areas of opportunities for providing our customers with value, but without limitations," Dr. Tysowsky said. "Our capacity for innovation in dental materials is excellent, and we emphasize innovation that creates opportunities for our customers. Our people are passionate about their responsibilities, which gives them a commitment that our customers recognize. In summary, throughout our

development process we focus on excelling beyond customer expectations."

Tetric EvoCeram Bulk Fill is currently being tested at a number of U.S. dental research centers, Spivey said. Each study is testing a different parameter, including polymerization shrinkage and shrinkage stress, to validate what Spivey said Ivoclar already has proven with in-house evaluations.

What it means to the company

Restorative materials are at the heart of what Ivoclar Vivadent does, and the company is known as a leader in the composite resin category. They listen to their customers' needs, and Tetric EvoCeram Bulk Fill is a great example of a product driven by customer demand.

"If dentists are asking for it and patients can benefit from treatments that incorporate Tetric EvoCeram Bulk Fill—either financially or clinically—then the market demands that we provide this material," Dr. Gaglio said. "The launch of Tetric EvoCeram Bulk Fill composite is just another example of Ivoclar Viva-

dent's commitment to delivering what the market demands."

Tetric EvoCeram Bulk Fill is a product that everyone in the company is excited about, Spivey said, because whether you're talking to the CEO, one of the researchers who was part of this product's development or anyone of the Ivoclar Vivadent employees around the world, everyone knows this product is going to change the way dentists practice.

"We're extremely excited about this product because it is truly unique," Spivey said. "There's no other product on the market with this new initiator system, shrinkage stress relievers and extended working time. It's truly something we're proud of. This material is really going to allow dentists to enjoy doing a direct composite posterior restoration because it's going to be faster, more efficient and less traumatic for the patient. We're saving steps but not sacrificing any physical properties or performance. Dentists can still expect the same longevity of a layered restoration, and that's the main motivation behind this product."

Marketing a new concept

Dentists have been layering these restorations for years, it's how they were taught in dental school, and many of them don't see any reason to change now. So getting them to realize that change can be good, and layering is no longer necessary with this material may be a challenge, Spivey

Added bonus

Tetric EvoCeram Bulk Fill is a great option for pediatric dentists, Chet Spivey said. It enables dentists to get in and get out quickly, which is definitely good to know when you have an anxious child in your chair.

said, but one the marketing team at Ivoclar Vivadent is up for. It comes down to getting the product in the hands of the dentists and giving them the opportunity to try it out. Their sampling initiative is a key product launch element they plan to focus on at the dental trade shows throughout 2012.

"Now we have to get dentists to believe in the fact they can do it," Spivey said. "We've done a lot of market surveys and a lot of dentists are still layering even with these new materials. It's hard to accept these materials can perform because it's been ingrained in the way that they do dentistry."

Spivey and his team have to find a way to help dentists become confident that they can use this new material without layering. How are they planning to do that? Beyond their push at the trade shows, they're also using traditional marketing avenues to tell dentists about Tetric EvoCeram Bulk Fill and what it can do for their practice. They're also putting together webinars, videos and technique articles to show dentists the product in use. KOLs are talking about Tetric

Save time, money and space

Reduced inventory is another Tetric EvoCeram Bulk Fill benefit, Dr. Michael Sesemann said. He no longer has to carry a separate self-etching product or core composite material.

"That's another way it saves you money," he said. "Any time you have a multi-use material where you don't have to carry specific products for each little thing you do makes managing your inventory so much easier."

EvoCeram Bulk Fill and its benefits at lectures and through these technique articles and videos, giving the material even more credibility. Testimonials from these trusted dentists are key to breaking down the barrier and getting dentists excited about trying this new material in their practice, Spivey said.

Another important element of marketing a new product like this is getting it in the dental schools, Spivey said. If dentists learn how to use the material from the beginning, they'll be more likely to incorporate it into their practice.

"Our phrase is bulk, sculpt and cure. Everything you see will say that," Spivey said. "This is a product we didn't just develop and then put on the market. This was derived from customer feedback from dentists around the world of what they need and what they want."

What dentists are saying

The team at Ivoclar Vivadent has already received some initial feedback from cli-

Want to give it a try for free?

To get a free Tetric EvoCeram Bulk Fill sample pack, visit ivoclarvivadent.us/bulkfill.

nicians who have used Tetric EvoCeram Bulk Fill, Spivey said, and he's been overwhelmed by how positive the comments have been. They put the product in the hands of top cosmetic dentists, such as Dr. Sesemann, and many of them are saying it has exceeded their expectations. They're happy with the esthetics, the marginal integrity, how easy it is to use and how well it blends.

"I'm pretty particular," Dr. Sesemann said. "I have a higher end cosmetic practice so my patients are pretty particular with the products that we deliver to them. So the fact that this gives us such a nice end result is also a win/win situation for myself and the patient."

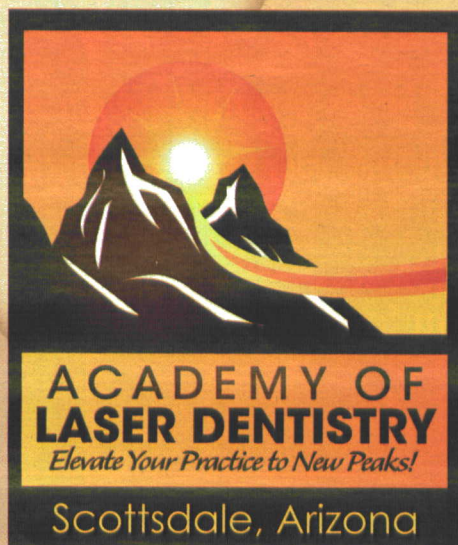
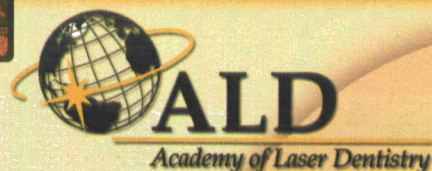
Dentists who have been using Tetric EvoCeram Bulk Fill the last few months also have given the team at Ivoclar Vivadent suggestions on how they can enhance the product even more in its next generation, which is another important part of the product development process. Following up with dentists who are using the product is key to ensuring the product is meeting customer needs, Dr. Tysowsky said.

"At Ivoclar Vivadent, our R&D and product development processes are customer focused and defined according to the final value delivered to the market," Dr. Tysowsky said. "R&D is a dynamic continuum based on current data, knowledge and customer feedback. If our customers ask for improvements or modifications, education and training or support—then we respond based on those market demands and input."

Why you should give it a try

If you've been using the layering technique to place posterior composite restorations for years, it can be difficult to believe that this product can change all that, that it's possible to do it more efficiently with comparable results—saving you time and money. You may be skeptical, but that's all the more reason to try it out in your practice.

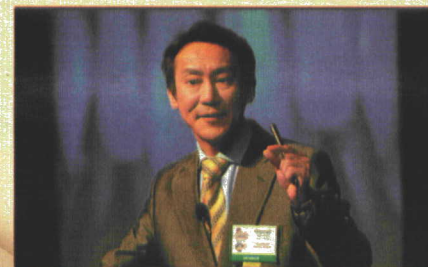
"They have to give it a try, have to give it a look. This has great malleability and you can bulk fill, sculpt and cure it so it has some body and good esthetics. It's different than low viscosity alternatives," Dr. Sesemann said. "They have to try it to believe it, and when they do I just think they're going to find something that's easy to implement in their current protocols. I think they'll be as happy as I am." ●



ALD 19TH ANNUAL CONFERENCE & EXHIBITION MARCH 29-31, 2012

Radisson
Fort McDowell

(954) 346-3776 • TOLL FREE: 877-LASERS6 (527-3776)



REGISTER TODAY! www.LaserDentistry.org