

Dental **PRODUCT SHOPPER**

A STUNNING REVELATION

BISCO's REVEAL HD Bulk represents a new era of composite with unparalleled depth of cure



**A BETTER
BULK-FILL
WITH
DR. LIANG CHEN**



**FROM THE
PODIUM
WITH
DR. HUGH FLAX**



**WHY I USE
WITH
DR. JEFFREY
NICKAS**



Dr. Chen is currently the Chief Scientist at BISCO. He received his PhD from Tulane University and was a postdoctoral researcher at Stanford University and Louisiana State University Dental School. Dr. Chen has published over 30 journal articles, and 70 conference paper abstracts. His works have been cited by international researchers more than 1,500 times, and he is an editorial board member of multiple dental journals. He has given many lectures and presentations worldwide.



Liang Chen, PhD

A Better Bulk-Fill

WITH LIANG CHEN, PH.D.

Q: The incremental placement technique for posterior universal composite was the standard until a few years ago, when manufacturers began introducing bulk-fill composites. Why do you think there are still doubts about bulk-fill systems, and how have you addressed this with REVEAL HD Bulk?

A: Bulk-fill composites can be filled in tooth preparations of up to 4 mm depth all at once instead of in increments due to their high depth of cure, which can save time and make the procedure easier. Most bulk-fill composites can be light-cured as deep as 4 mm under ideal curing conditions. However, in clinics, many clinicians have not used optimum conditions to light-cure composite.

According to a survey, one-third of dentists in the U.S. may not follow the manufacturer's recommended energy. The average curing techniques used today may not cure today's bulk-fill composites as deep as 4 mm, which may lead to undercuring of the bottom of composites, resulting in many clinical issues, such as lower bond strength or debonding, toxicity of undercured resins, microleakages, postoperative sensitivity, and recurrent caries. In order to address this curing issue, BISCO developed a new bulk-fill composite, which can be cured deeper (5-mm depth of cure) and easier than current bulk-fill composites.

Q: When developing REVEAL HD Bulk, how did you take into account clinician feedback on materials they had been using, either universal composite or bulk-fill composite?

A: Before we began developing a new bulk-fill composite, we gathered feedback from clinicians who are currently using universal or bulk-fill composites and learned more about their everyday challenges and what attributes would offer a superior bulk-fill composite. The goal of our research-and-development and marketing team was to manufacture a bulk-fill composite that addresses the challenges and obstacles that clinicians are experiencing daily. Throughout the development process, we frequently asked clinicians to test the product prototype, and modifications were incorporated based on the feedback received.

Q: What improvements were most needed?

A: Poor curing of the bottom of composites in a bulk-quantity is the most significant issue, which is the most important reason why bulk-filling may fail and result in postoperative sensitivity and recurrent caries. Improvement of depth of cure was needed most. In addition, exceptional radiopacity for easy detection as well low shrinkage stress for reducing white-line formation around margins and gap formation underneath were also very important improvements for the bulk-fill composite.

Q: Did the product change in any way based on clinician testing and feedback?

A: Yes, during the research and development phase, we modified the handling, viscosity, and stickiness.



HUGH FLAX, DDS, AAACD, MICOI, DABAD

Dr. Flax is internationally known for his leadership in cosmetic dentistry. A past president of the American Academy of Cosmetic Dentistry, he has lectured and authored in Europe, Japan, Canada, and the U.S. on lasers, smile design, and advanced restorative techniques to enhance the skills of dental teams in making their care world-class for their patients. Dr. Flax is visiting faculty at the Dental School of Georgia and donates part of his honorarium to the AACD APEX scholarship to help undergrad dental students attend the AACD Annual Scientific Session.



REVEAL HD Bulk

HIGHLY ADAPTABLE, RADIOPAQUE, AND POLISHABLE FOR SIMPLIFIED TREATMENT

Find out why Dr. Hugh Flax believes that REVEAL HD Bulk by BISCO:

- Is a versatile, high-quality bulk-fill composite
- Helps simplify treatment in his office

I did some early testing of BISCO's REVEAL HD Bulk last summer, and I found it to be a very versatile material. I've adopted it into my practice, and I tend to use it more for posterior restorations. I've been pleasantly surprised by what I've observed in postoperative x-rays. I was thinking I would have to use flowable composite in a proximal box like I always did, but REVEAL HD Bulk really adapts very nicely. It has very nice radiopacity and polishes incredibly well.

Composites are like golf clubs in that it doesn't matter what golf club you give somebody—you still have to use good technique. Dentists can't rely on the material to do everything for them, because they still have to use a good bonding technique and use a matrix well. REVEAL HD Bulk has made it easier for dentists to succeed in placing posterior restorations.

When I place bulk fill, I don't go more than 3 mm or 4 mm. Perhaps I'm still clinging to an element of the old layering technique. However, from what I've seen so far, in terms of handling and depth of cure, we have a good material in REVEAL HD Bulk. In the past, I found that when I would use a bulk-fill material, I would still have to cover it. I'd use it for my enamel replacement and for my box, and then I'd place a material that was highly polishable over it. I no longer have to do that with REVEAL HD Bulk.

To the point of technique, many dentists are in a hurry because of pressures they have at work, or they don't use magnification and they can't see where they're adapting the material. There are so many factors affecting success. I hate to come off as

a stereotypical KOL, but realize I've seen the mistakes not only that other people have made but also that I've made years ago because I relied on the material too much. With that in mind, I'm really impressed with REVEAL HD Bulk so far. I have some older patients who need some perio splinting, and REVEAL HD Bulk has worked out nicely. Because it polishes quickly, patients aren't saying they're feeling it around their tongue. It also adapts well in crowding.

The Impact of High-Quality Materials

When you have a composite like REVEAL HD Bulk that is consistent and the directions are very easy to follow, then there's not that gap of having faulty restorations. I hate redoing things, my patients are busy, and they pay a reasonable fee. The last thing I need is to have them complain about sensitivity or a filling breaking down.

I've tried to simplify a lot of systems in my office so that my staff has peace of mind that they have the correct material, and they don't have to read my mind. They have to know what to use, where, and when. Products like REVEAL HD Bulk and ALL-BOND UNIVERSAL have made things a lot easier for my staff to know what I'm thinking in 99% of these situations.

I've had to customize my practice because patient expectations are higher, and they have more demands in their lives and careers. I've had to be even more efficient with my time, and products like REVEAL HD Bulk allow me to be. I think we've improved our practice's offerings incrementally by making ourselves more efficient. In terms of the patient experience, that helps us create more raving fans of the practice.



JEFFREY A. NICKAS, DDS

Dr. Nickas received his bachelor's degree from the University of Illinois at Urbana-Champaign and completed his dental schooling at the University of Illinois at Chicago. He continues his education to this day by regularly attending courses at the Cosmedent Center for Esthetic Excellence. He has also received further training in endodontics, periodontics, and with the Dawson Academy for Dental Continuing Education. Dr. Nickas currently practices dentistry in Sycamore, IL, as part of the Grand Dental Group.

REVEAL HD Bulk

PREDICTABLE AND EASY-TO-USE WITH EXCELLENT DEPTH OF CURE



BISCO frequently asks clinicians to test products, collects their feedback, and makes modifications as necessary. Dr. Jeff Nickas was tapped as an early adopter of REVEAL HD Bulk and carefully considered some of the manufacturer's most significant claims. Here, Dr. Nickas shares why he now uses nothing but REVEAL HD Bulk for the majority of his bulk-fill restorations.

I think that composite is the bread-and-butter of what we do in dentistry. Other than adhesives and prophy paste, it's probably the most-used material in our office. I'm always looking for products that will make my job more predictable and easier to do. Over the course of my career, I've used quite a few other different materials to place fillings. When it comes to using bulk-fill composites, I find that a lot of materials are sticky when they're placed. Sometimes you get a little pull-back on the composite, and that can easily introduce voids into restorations.

What I've found with REVEAL HD Bulk is that it's a firmer composite and it's packable, but it's still somewhat light to the touch. It's not very heavy, so you don't have to pack it like you're packing amalgam, and it sculpts very easily. REVEAL HD Bulk is excellent, and I think the product is definitely superior to many of the others on the market that I've used. I've actually taken to using nothing but REVEAL HD Bulk for the majority of my bulk-fill restorations.

In terms of the bulk-fill technique, I think most dentists can be skeptical of it because they're creatures of habit. We have our way of doing things, and we think, "This is the way I was taught in dental school, or I went to a course and this is what I learned." I was chained to incremental layering, and while I do find that it's a nice way of placing a filling, there are a couple of drawbacks. On one hand, you're relying on every layer that you put into the proximal box or into the occlusal composite as being able to adapt to the next layer. You can cure the layers as you go, but I do feel that there is a propensity to introduce voids in between the layers of composite that you place.

On the other hand, many dentists are concerned about depth of cure. BISCO states that REVEAL HD Bulk

has a 5-mm depth of cure. Sometimes I have doubts when manufacturers make depth-of-cure claims, but BISCO's chemistry is second to none. They're the industry leader when it comes to materials being chemically sound when they come to market, so I trust their claims. From my experience, I don't feel I've lost any of the restoration quality by placing bulk-fill composite. For dentists who are skeptical about bulk-fill composites, I would recommend they try REVEAL HD Bulk.

A lot of bulk-fill composites on the market are radiopaque, which is good when you place them. However, there are some concerns when you place them clinically. There's a lot of translucency to bulk-fill composite, and a lot of the time the shading is a bit different than some of the denser, non-bulk-fill composites. I do feel that BISCO's shading is actually better and gives a more esthetic, lifelike appearance to the restoration, and you don't get that gray hue. REVEAL HD Bulk has been excellent when I've checked up on postoperative radiographs and seen patients for recall visits.

Overall, REVEAL HD Bulk has made my job easier and quicker. I've used it along with ALL-BOND Universal, which is a universal dental adhesive that you can total etch, selectively etch, or not etch at all, and also with TheraCal, which is an easy way of lining a cavity preparation. BISCO makes things easy, and I can have fewer materials in my armamentarium. Also, whenever the patient spends a little less time in the chair, it's always a plus for them.

Having specific materials that can do more, and that I can trust to do more, helps me not only as a practitioner but also as a business. If I can do things more efficiently while improving my patients' experience—and still have the peace of mind that I'm doing good dentistry that day—that's a win-win for me.

ADDITIONAL RESOURCES

PRODUCT OFFERINGS

REVEAL HD Bulk is available in 4 shades, A1, A2, A3, and B1, and the following offerings: with 3 g syringes; with 25-count and 50-count unit dose packs; with a unit dose kit consisting of 25 units of A2, 25 units of A3, ALL-BOND UNIVERSAL 6 ml bottle, and 1 g syringe of TheraCal LC; and with a syringe kit consisting of a 3 g syringe of A2, 3 g syringe of A3, ALL-BOND UNIVERSAL 6 ml bottle, and 1 g syringe of TheraCal LC.

Unique Benefits

- Optimal viscosity for single-layer placement, handling, and filling ability
- Light-activated restorative composite for simpler and faster posterior restorations
- Substantial depth of cure (5–6mm ISO*)
- Low shrinkage stress
- Exceptional radiopacity for easy detection (4.0 mm Al)
- Low volumetric shrinkage (< 2.50%)
- High flexural strength (>80.00 MPa)
- Low water sorption (<40 µg/mm³) and solubility (<7.5 µg/mm³)

For more information: 1-800-247-3368 • reveal.bisco.com

**Varies based on the shade selected*