

HOWTO

USE A SELF-ADHERING FLOWABLE COMPOSITE

Incorporating a bonding agent into a flowable, the easy-to-use Vertise Flow represents a new category of composite material.

by DR. SAM SIMOS

Information provided by Kerr Corp.

If a vertex, as defined by Webster, is the intersection of two lines that form an angle, **Vertise Flow** is the intersection of composite and bonding agent where speed and convenience collide without sacrificing performance.

It's rare, these days, that a dental manufacturer introduces a material that is truly unique. Admittedly, there are "new" products touting different chemistries, improved bond strength and better elasticity, but these "improved" materials often are basically the same products slightly modified.

Vertise Flow, however, is a new class of composite material: self-adhering flowable composite. This is an advanced approach to composite technology that I believe is the next logical development in restorative materials. However, the concept is so novel it has many dentists wondering if it is too good to be true.

The purpose of this article is to demystify this exciting new technology so more clinicians will decide to incorporate it into their armamentarium of restorative solutions.

The composite

Kerr has incorporated its proven, proprietary OptiBond adhesive technology into Vertise Flow as well as an optimized resin matrix and filler system

with an average particle size of 1 micron. This particle size ensures optimal wear resistance, comparable with the leading flowables on the market today.¹

Equally impressive is Vertise Flow's shear bond strength, with its 22.4 MPa in enamel and 26 MPa in dentin.² This should allay any fears that this technology does not work.

Microleakage is another concern clinicians have with any bonded restoration. In a University of Siena study³ that compared the microleakage of various flowable composites and dental adhesives in Class I composites, Vertise Flow outperformed many of the systems.

It's versatile

Clinicians know viscosity is important when using a flowable. Vertise Flow has a viscosity that is well suited for both anterior and posterior restorations. In a recent North American hands-on in-vitro field test,³ clinicians favored Vertise Flow's physical characteristics over the flowables they currently used.

All-in-all Vertise Flow is a pretty remarkable product that deserves a spot on your shelf of restoratives.

Case presentation

The following is a step-by-step pictorial showing the ease of use of Vertise Flow. I've chosen to show a direct Class I restoration, however this material can be used in Class I, II or even as the restorative of choice when doing a sealant.

The procedure

STEP 01 Isolate the tooth you're working on from the adjacent teeth before you start the procedure (Fig. 1).

STEP 02 Prepare the cavity, wash thoroughly with water, and dry with air. Research has shown that with Vertise Flow, dry dentin surfaces enhance bond strength. Vertise Flow composite is self-adhering and therefore does not require an etching or bonding protocol prior to placement.

STEP 03 Select the desired shade. Dispense Vertise Flow into the preparation with the provided dispensing tip. Place the tip into the deepest area of the preparation and begin dispensing (Fig. 2).

STEP 04 Use the provided brush to apply Vertise Flow to the entire cavity wall. Brush with moderate pressure for 15-20 seconds to obtain a thin layer. The initial layer should be no more than 0.5 mm (Fig. 3).

STEP 05 Light cure for 20 seconds. After lining the cavity wall with Vertise Flow, you can either build the restoration with more composite in increments of 2 mm or less, or you can build the restoration with a traditional universal composite resin such as Kerr's Premise or Herculite Ultra. The thickness of each increment of the traditional universal composite should be no more than 2 mm.

STEP 06 Light cure each increment for 20 seconds. Now the final restoration (Fig. 4) is ready for you to place. ●

REFERENCES

1. Kerr Corporation, SEM/TEM optimized Resin Matrix and Filler System as found in Vertise Flow, 2009.
2. C.A. Munoz-Viveros and M. Campillo-Funollet, School of Dental Medicine, State University of New York at Buffalo, Buffalo, NY, USA, Shear Bond Strength of Vertise Flow to Dentin and Enamel Substrates.
3. 2009 Kerr Roundtable clinician blind study comparison, n=44ptcpts.

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VERTISE FLOW FEATURES

- Self-adhering flowable composite
- Optimal bond strength and wear resistance
- Well suited for both anterior and posterior restorations
- Powered by OptiBond technology
- Greatly reduces chance of post-op sensitivity



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AT A GLANCE

1. Isolate the tooth from the adjacent teeth.
2. Dispense Vertise Flow into the preparation with the provided dispensing tip. Place the tip into the preparation's deepest area and begin dispensing.
3. Use the provided brush to apply Vertise Flow to the entire cavity wall. Brush with moderate pressure for 15 to 20 seconds to obtain a thin layer.
4. The final restoration.

