

Tips from practicing dentists on using products to the best advantage

Product Category

RESTORATIVE MATERIALS AND ACCESSORIES

Dentist: Dr. Shalom Mehler

Practice location: Teaneck, NJ

Type of practice: General practice

Years in practice: 29

System/product to be described: CompCore AF

Manufacturer: Premier Dental Products Company

Company Website: www.premusa.com

Description of this product and its benefits to the dental patient:

Teeth that are significantly damaged because of fracture, caries, or wear or are weakened from a previous restoration or endodontic therapy may require a core build-up. Composite resin used as a core build-up material has advantages over both amalgam and glass ionomer. Composite resin is bondable to tooth structure, which helps preserve the remaining tooth structure and minimizes the need for additional retention and cavity preparation. In addition, composite resin is generally easy to place and adapt by syringing it into the cavity preparation. Because resins can be either light cured or dual cured, crown preparation can be accomplished immediately, leading to increased clinical efficiency.

CompCore AF (Premier) is a dual-cure composite core build-up material with fluoride release, high radiopacity, and Hyperbranched Technology for increased strength. Hyperbranched Technology is a



1

Figure 1: CompCore AF SyringeMix Stack (Premier).



2

Figure 2: Size 4.5 Cure-Thru IntegraPost tried in after post space preparation.



3

Figure 3: The cemented Cure-Thru IntegraPost with a small amount of shade A3 CompCore AF.



4

Figure 4: The completed CompCore AF build-up and final crown preparation on tooth no. 4.

polymer performance enhancer that helps the composite resin polymerize more completely and mitigates shrinkage stresses.

CompCore can be delivered via 3 different methods (50-gram automix cartridge, 9-g automix syringe, and 6-g tubes of base/catalyst for hand mixing) and features 3 colors and shades (white, A3, blue) to achieve a natural appearance or contrast between restorative material and tooth structure.

CompCore can be light cured to a depth of 8 millimeters in 30 seconds (550 milliwatts per square centimeter; for cores deeper than 8 mm, light cure for 40 seconds) or chemically cured in 4.5 minutes. The no-slump formula stays put and is flowable enough to get into the tiny cervices of the preparation. CompCore dual-cure products

are indicated for all types of core build-ups and are ideal for anyone who prefers a stackable, all-purpose core material.

Step-by-step description of how this product is used with a patient:

A 41-year-old man came to the office for post & core and single crown procedures after root canal therapy on tooth no. 4. After I prepared a post space using a size 4.5 IntegraDrill (Premier) and a latch-type handpiece, I cemented a size 4.5 Cure-Thru IntegraPost (Premier) using self-adhesive resin cement.

After I applied and light cured a self-etch bonding agent, I selected CompCore AF SyringeMix Stack shade A3 for a core build-up material. I bled the syringe before attaching an intraoral mix tip, and then I bled

it again through the tip. I placed the intraoral tip into the base of preparation slowly dispensed the material as I removed the tip to prevent air entrapment. I light cured the build-up for 30 seconds.

After I removed the Tofflemire-type matrix band and retainer, I immediately prepared tooth no. 4 using single-use Solo Diamonds (Premier). Because CompCore AF cuts smoothly with resistance similar to dentin, I avoided ditching the preparation especially at the resin-tooth interface. The final preparation was almost indistinguishable from natural tooth color because of excellent shade blending, helping prevent any show-through in the definitive glass ceramic restoration.