Competitive Product and Procedure Comparison

3M™ RelyX™ Fiber Post 3D
Glass Fiber Post

Offered by 3M

X-Post™
Glass Fiber Post

Offered by Dentsply

Summary – Advantages of 3M Solution over Dentsply

• Faster and simpler 3M post and core solution with proven products (Fig. 1)
• Reliable post and core build-up procedure with fewer clinical steps and fewer products (Fig. 1)
• Easier cementation with 3M™ RelyX™ Unicem 2 Automix Cement: no post silanating, no root canal conditioning, no application of cement to post, no lentulo usage (endo tip application of RelyX Unicem 2 Automix enables a virtually void-free cementation (Fig 1.))
• Easier bonding with 3M™ Scotchbond™ Universal Adhesive for the core build-up: No etching or priming (Fig. 1)

3M post and core solution compared to Dentsply

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Fig. 1: Less components and steps compared to Dentsply Post & Core System. Source: Steps according to instructions for use of X-Post™ and 3M™ RelyX™ Fiber Post 3D.

RelyX Fiber Post 3D – Major features

• No pre-treatment of the post needed due to the micro-porosity at the surface (Fig. 2)
• Integrated 3D macro retention in the coronal part for a high bond strength to the core build-up (Fig. 3)
• Excellent radiopacity for better post position control (Fig. 4)

Fig. 2: Surface (SEM, 200x magnification) of 3M™ RelyX™ Fiber Post 3D.

Fig. 3: The coronal macro retention of 3M™ RelyX™ Fiber Post 3D give a high and secure mechanical retention to the core build-up material, immediate depth control and guidance for post shortening.

Fig. 4: Comparative radiography of the new RelyX™ Fiber Post 3D to RelyX™ Fiber Post Glass Fiber Post.
### Product description and benefits:

**Glass Fiber Post**
- Glass fiber reinforced composite post with uniquely designed coronal macro-retention. Embedded in a fast and simple 3M post and core solution for a secure bond from root to core.

**X-Post™**
- A unique treatment solution for the placement of core build-ups and endodontic posts.

### Cement

**3M™ RelyX™ Unicem 2 Automix Cement**
- Self-adhesive universal resin cement, no need for etching, priming and bonding
- Reduces significant number of steps
- Endo tip allows easy and virtually void-free application
- Delivers reliable and strong bond of post to root canal

### Post

**3M™ RelyX™ Fiber Post 3D**
- High mechanical retention to core due to coronal macro retention
- Secure bond in the root canal due to superficial micro-porosity
- High radiopacity
- Dentin-like elasticity to avoid root fracture
- Esthetic alternative to metal posts
- The flattened coronal macro retention offer a safe grip with the tweezer

**X-Post™**
- Stable build-up
- Microporous surface provides maximum surface for better adhesion of cement
- Radiopaque
- Dentin-like elasticity
- High translucency facilitates light-curing, giving better control over cement and bonding setting times
- Parallel oriented glass fibers prevent fissures or fractures
- Tapered shape mimics the anatomy of the root canal

### Adhesive

**3M™ Scotchbond™ Universal Adhesive**
- Light-curing, self-adhesive
- Reliable and strong bond to root and core
- Bonds to all surfaces including enamel, dentin, glass ceramic, zirconia, noble and non-precious alloys, and composites – without additional primer
- One application of adhesive sufficient (no etching or priming)
- Combined total-etch, self-etch and selective-etch adhesive

**Prime&Bond® XP**
- Light-curing
- Self-priming adhesive
- Universal total-etch adhesive
- Dual-cure (when mixed with Self Cure Activator)
- Prime&Bond® XP adhesive stands for eXtra Performance due to high bond strength to enamel and dentin, easy and comfortable application and a high degree of technique robustness

### Core build-up

**3M™ Filtek™ One Bulk Fill Restorative**
- Improved opacity and esthetics
- Excellent cavity adaptation
- One-step placement up to 5 mm
- Excellent handling and sculptability
- Excellent wear resistance and polish retention
- High radiopacity

**Core X™flow**
- Dual-curing
- Tooth-colored shade
- Ideal in situations where esthetics and show-through of the core are of primary concern
- Radiopaque

### How it works

**3M™ RelyX™ Fiber Post 3D with**
- Clean RelyX Fiber Post 3D with alcohol
- Apply RelyX Unicem 2 Automix Cement into root canal
- Insert post into root canal
- Apply Scotchbond Universal Adhesive to the coronal part of post and tooth
- Build-up core with Filtek One Bulk Fill Restorative

**X-Post™**
- Clean post with alcohol
- Apply DeTry® Conditioner 36 (Etching Gel) into root canal and to the tooth
- Apply XP Bond® and Self Cure Activator mixture into root canal
- Apply XP Bond® and Self Cure Activator mixture to post
- Apply Core X™flow to post
- Apply Core X™flow into root canal
- Insert post into root canal
- Apply XP Bond® to post and tooth
- Build-up core with Core X™flow

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*Information obtained from http://www.dentsply.com*