

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

	Post cementation							Core build-up				
	Apply etching gel	Apply primer	Mix adhesive	Apply adhesive	Condition post	Apply cement	Place post and cure	Apply etching gel	Apply primer	Mix adhesive	Apply adhesive	Core build-up
3M	–	–	–	–	–			–	–	–		
Dentsply												

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)

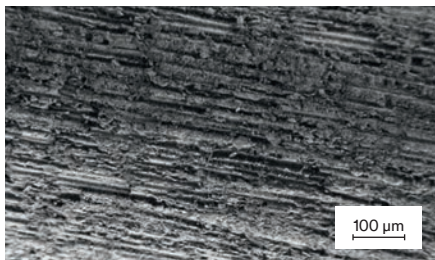


Fig. 2: Surface (SEM, 200x magnification) of 3M™ RelyX™ Fiber Post 3D.
Source: R. Peez, R. Hampe, S. Hader, E. Popp, J. Edgington: Evaluation of a New Cement Post and Core Procedure System, J Dent Res 94 (Spec Iss A): 0105, 2015, (www.dentalresearch.org)

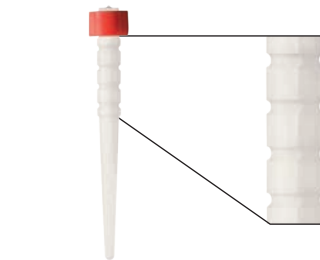


Fig. 3: The coronal macro retention of 3M™ RelyX™ Fiber Post 3D give a high and secure mechanical retention to the core build-up material, immediate depth control and guidance for post shortening.

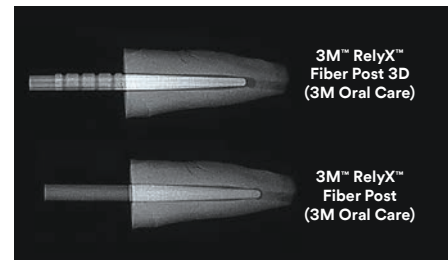


Fig. 4: Comparative radiography of the new RelyX™ Fiber Post 3D to RelyX™ Fiber Post Glass Fiber Post.
Source: THE DENTAL ADVISOR, Research Report Number 70 – June 2015.

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

Offered by 3M



X-Post™ Glass Fiber Post

Offered by Dentsply*



Product description and benefits:

(As stated by the
manufacturer)

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.

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

Core X™flow

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

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 tweezers

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
- Biocompatible urethane resin
- Tooth-colored shade
- Ideal in situations where esthetics and show-through of the core are of primary concern
- Radiopaque

How it works

- 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

- 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



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

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