

Competitive Product and Procedure Comparison

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

Offered by 3M



ER DentinPost X Glass Fiber Post

Offered by Komet/Brasseler



Summary – Advantages of 3M Solution over Komet/Brasseler

- 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 Komet/Brasseler

	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	-	-	-	-	-			-	-	-		
Komet/Brasseler			-		-			-	-	-	-	

Fig. 1: Less components and steps compared to ER DentinPost X® & DentinBuild Evo® System. Source: Steps according to instructions for use of ER DentinPost X® 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 material, immediate depth control and guidance for post shortening (Fig. 3)
- Excellent radiopacity for better post position control (Fig. 4)

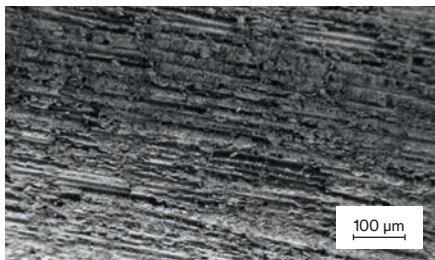


Fig. 2: Surface (SEM, 200x magnification) of 3M™ RelyX™ Fiber Post 3D.
Source: R. Peez, R. Hampe, S. Hader, E. Popp, J. Edgington: Evaluation of a New Cement Post and Core Procedure System, J Dent Res 94 (Spec Iss A): 0105, 2015, (www.dentalresearch.org)

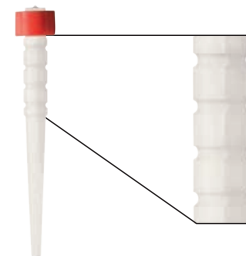


Fig. 3: The coronal macro retention of 3M™ RelyX™ Fiber Post 3D give a high and secure mechanical retention to the core build-up material, immediate depth control and guidance for post shortening.

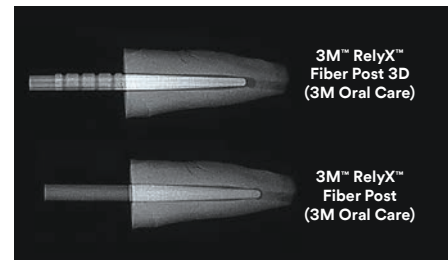


Fig. 4: Comparative radiography of the new 3M™ RelyX™ Fiber Post 3D to 3M™ RelyX™ Fiber Post Glass Fiber Post.
Source: THE DENTAL ADVISOR, Research Report Number 70 – June 2015.

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

Offered by 3M



ER DentinPost X Glass Fiber Post

Offered by Komet/Brasseler*



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.

This glass fiber post offers an unprecedented combination of minimal invasiveness and maximum esthetics.

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

DentinBuild Evo

- Dual-curing
- High radiopacity
- 2 colors: A2 and white opaque

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

ER DentinPost X

- Coated with layers of silicate, silane and polymer layer
- Pronounced retention head facilitates an esthetic restoration even of teeth with a severely damaged crown
- A finite element analysis confirmed that the appreciable tensions/forces do not occur in the apical part of short root posts

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

DentinBond Evo

- Dual-curing
- Self-adhesive

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

DentinBuild Evo

- Dual-curing
- High radiopacity
- 2 colors: A2 and white opaque

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 DentinBond Evo into root canal
- Insert post into root canal
- Apply DentinBuild Evo to post and tooth
- Build-up core with DentinBuild Evo

*Information obtained from <http://www.kometdental.de/Product-Information.6308.0.html?&L=1>

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