3M Science. Applied to Life.™

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)

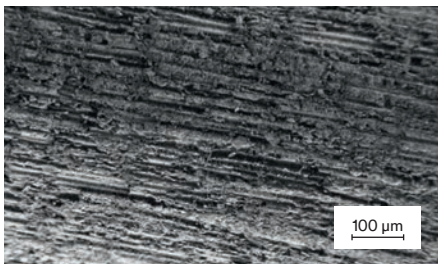

Fig. 2: Surface (SEM, 200x magnification) of 3M™ RelyX™ Fiber Post 3D.
Source: R. Peez, R. Hampe, S. Hader, E. Popp, J. Edgington: Evaluation of a New Cement Post and Core Procedure System, J Dent Res 94 (Spec Iss A): 0105, 2015, (www.dentalresearch.org)

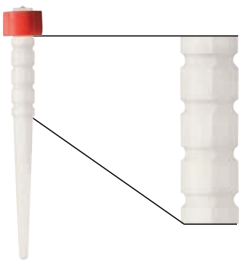

Fig. 3: The coronal macro retention of 3M™ RelyX™ Fiber Post 3D give a high and secure mechanical retention to the core build-up material, immediate depth control and guidance for post shortening.

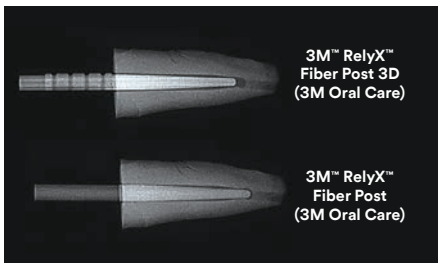

Fig. 4: Comparative radiography of the new RelyX™ Fiber Post 3D to RelyX™ Fiber Post Glass Fiber Post.
Source: THE DENTAL ADVISOR, Research Report Number 70 – June 2015.

	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 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 • 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® Conditoner 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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