

Competitive Product and Procedure Comparison

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

Offered by 3M



ParaPost® Fiber*/Taper**Lux™ Glass Fiber Post

Offered by Coltène



Summary – Advantages of 3M Solution over Coltène/Whaledent

- 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 Coltène/Whaledent

	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	-	-	-	-	-			-	-	-		
Coltène/Whaledent	-	-						-				

Fig. 1: Less components and steps compared to ParaPost® & ParaCore® System. Source: Steps according to instructions for use of ParaPost®, ParaCore® 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)

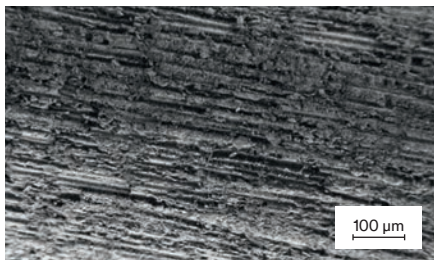


Fig. 2: Surface (SEM, 200x magnification) of 3M™ RelyX™ Fiber Post 3D.
Source: R. Peez, R. Hampe, S. Hader, E. Popp, J. Edgington: Evaluation of a New Cement Post and Core Procedure System, J Dent Res 94 (Spec Iss A): 0105, 2015, (www.dentalresearch.org)

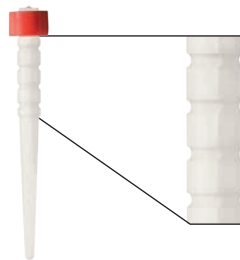


Fig. 3: The coronal macro retention of 3M™ RelyX™ Fiber Post 3D give a high and secure mechanical retention to the core build-up material, immediate depth control and guidance for post shortening.

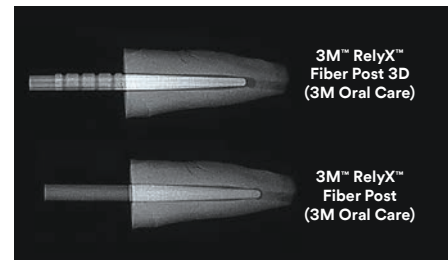


Fig. 4: Comparative radiography of both posts.
Source: THE DENTAL ADVISOR, Research Report Number 70 – June 2015.

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

Offered by 3M



ParaPost® Fiber/Taper Lux™ Glass Fiber Post

Offered by Coltène*



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.

Parallel and tapered translucent fiber post systems. An alternative to metal posts when an esthetic metal-free restoration is desired.

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

ParaPost® Para Core®

- Dual cured, glass-reinforced composite resin
- Radiopaque
- To produce a restoration with an unusually long life and very high strength

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

ParaPost® Fiber/Taper Lux™

- Rounded head design reduces stress and locks-in composite core material
- Light transmitting for fast cementation
- Higher concentration of fibers for excellent strength characteristics
- More radiopaque and removable
- Outstanding strength

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

ParaBond® Non-Rinse Conditioner, ParaBond® Adhesive A+B

- Chemically-curing, self-adhesive
- Ideal for situations where light might not penetrate, such as for post cementation, metal crowns, deep cavities or opaque ceramic
- High shear bond strengths on dentin and enamel

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

ParaPost® Para Core®

- 2 versions: ParaCore® and ParaCore® SLOW
- 3 shades: dentin, white and translucent
- Optimal monoblock bond interface between dentin-post-crown
- Superior bond strength and stable consistency
- 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
- Brush silane onto post (optional)
- Condition canal with non-rinse conditioner and/or apply primer/adhesive e.g. with ParaBond® Adhesive A+B
- Apply cement to post surface and into root canal
- Insert post in the root canal
- Bond post and tooth structure with ParaBond® Adhesive A+B
- Build-up core with ParaPost® ParaCore®



*Information obtained from <http://www.coltene.com/10033/Products.html>

3M Oral Care
2510 Conway Avenue
St. Paul, MN 55144-1000
USA
1-800-634-2249

3M Canada
Post Office Box 5757
London, Ontario N6A 4T1
Canada
1-888-363-3685

3M.com/dental

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