PREFABRICATED POSTS WITH PANAVIA 21 AND CORE BUILDUPS

**(Recommended)**
**NOTE:** It is best to wait two weeks after endodontic therapy before placing a post with resin composite cement because eugenol from the sealer inhibits the set of resin cements. The best approach is to use a non-eugenol endodontic sealer such as *ah26* [Caulk]. 99% of posterior teeth should not have posts placed.

Use only core buildups for posterior teeth.

1. Isolate - NO organic fluids (blood, saliva, and serum). Total isolation is mandatory, no organic fluids (blood, saliva, and serum). ALL bleeding must be controlled. To stop bleeding, use *# 7 SilTrax epi* [Pascal] soaked in *hemodent* [Premier] and rinse thoroughly immediately after placement in sulcus or use *hemodent* in a *3-cc syringe* [Best Buy Discount Dental Supply] with an *inspiral Brush Tip* [Ultradent]. Use the brush tip to scrub and apply pressure to the bleeder and express *hemodent* slowly with high- speed vacuum in place to catch the *hemodent*. Rinse very thoroughly. DO NOT USE aluminum chloride impregnated cord because aluminum chloride and many other astringent agents can inhibit the set of resin composites. If *hemodent* is used, thoroughly rinse it away to avoid the problem of resin composite set inhibition from the aluminum chloride. If possible, avoid tissue laceration when removing old restorative in order to avoid the use of astringent chemicals that can potentially compromise resin bonding.
2. Prepare the post space with sequential peezo reamers and size with an appropriate size twist drill [Coltene-Whaledent]. Leave 5.0 mm or more of endodontic filling material in the apical portion of the root. Scratch the walls of the post space with a *diamond hand reamer* [Brasseler]
3. Air abrade with *CoJet sand* [3M ESPE] using a *rondo flex* [KAVO] air abrasion device .
4. Grinding debris should be scrubbed away with *pure 4%* CHG [Best Buy Discount Dental Supply] using an *inspiral Brush Tip* [Ultradent] on a *3-cc syringe* [Best Buy Discount Dental Supply]. Rinse thoroughly using a *stropko irrigator*. The primary reason for failure of resin composite cemented posts is the inabil- ity to dry the post space. A *stropko irrigator* can be used on both the *3-way dCi syringe* and on the *Clean & dry air system* [Best Buy Discount Dental Supply] syringe. This will allow the clinician to rinse medicament applications, allow a perfect degree of moisture to be present for proper application and will allow the post space to be dried completely. It must be totally dry with clean and dry air. The *stropko irrigato*r is used with a 20 ga. *appli-Vac Micro* irrigator tip.
5. Flush thoroughly with *ethyl alcohol* [Everclear Grain Alcohol] from a *3-cc syringe* with an *inspiral Brush Tip*, use a *Microbrush X* [Microbrush Corp.] to scrub the walls of the post space. Rinse using a *stropko irrigator* – DRY, using a *stropko irrigator*. The purpose for the alcohol is to dissolve residual eugenol contamination from the endodontic sealer. Omit this step if a non-eugenol endodontic sealer was use.
6. Scrub with *pure 4% ChG* [Best Buy Discount Dental Supply] for 15 seconds using a *3-cc syringe* with an *inspiral Brush Tip,* use a *Microbrush X* [Microbrush Corp.] to scrub the walls of the post space, and rinse, using a *stropko irrigator*. Dry, using a *stropko irrigator*.
7. Scrub with *Tubulicid red* [Global Dental] for 15 seconds, using a *Blue Mini dento infusor Tip* [Ultradent] with a *3-cc syringe,* use a *Microbrush X* [Microbrush Corp.] to scrub the walls of the post space. Rinse using a *stropko irrigator*. Dry, using a *stropko irrigator*.
8. Scrub with *naoCl* (Clorox) using and *inspiral Brush Tip* on a *3-cc syringe,* use a *Microbrush X* [Microbrush Corp.] to scrub the walls of the post space. Rinse with a *stropko irrigator*. Dry with a *stropko irrigator*.
9. Apply *32% h3po4* [32% Uni-Etch BAC from Bisco] for 15 seconds. Rinse 15 seconds with a *stropko irrigator*. All acid etch by-product must be rinsed away.
10. Apply *pure 4% ChG*, rinse thoroughly
11. Vacuum or slightly dry with air; use paper points or a *stropko irrigator* to leave the dentin moist, not wet,
in the post space.
12. Apply *all Bond 2 primers a & B*, 10-20 applications with a Benda-Brush. Use a *Microbrush X* or a small *Ball point applicator* [Pinnacle Products] to apply the primers into the post space. Turn on the high volume vacuum while the *Microbrush X* is still in the post space to evaporate the excess A & B.
13. Dry thoroughly with a *stropko irrigator on* the tip of the *Clean & dry air syringe*.
14. Apply dentin enamel bonding resin with a Ball Point Applicator over all dentin and enamel, but avoid placing it in the post space as this will prevent the post from seating properly. Light cure for 20 seconds.
15. Apply *ed primer* [Kuraray] for 60 seconds to the post space, using a small *Ball-point applicator*. Dry thoroughly with a *stropko irrigator on* the tip of the *Clean & dry air syringe* for at least 10 seconds.
16. Mix *panavia 21-TC* [Kuraray] for 60 seconds and load into a *needle tube* [Centrix]. Start the mix when the ED primer is applied to the post space.
17. Using a second dental assistant and another dedicated mixing pad, mix refrigerated *enamel shade Core paste* [Den Mat] after 45 seconds of mixing the *panavia 21-TC*. Load the core paste into a *needle tube*. Load the *panavia 21* into a needle tube.
18. Inject *panavia 21* into the post space using a *Centrix* syringe with a needle tube and immediately insert a sandblasted *parapost Xp post* [Coltene-Whaledent] which has been coated with *alloy primer* [Kuraray] and dried. Get moving! The lack of oxygen coupled with *primers a & B* and *ed primer* accelerate the set of *panavia 2*1. You have 5 seconds to get the post home and in the correct spatial relationship. (See NOTE) *panavia f 2.0* will not work because it inhibits the set of *Core paste.*
19. Displace as much excess *panavia 21* as is possible with *enamel shade Core paste* using a *Centrix* syringe with a needle tube.
20. Build *enamel shade Core paste* up around the post like soft ice cream.
21. Allow to set undisturbed for 5 minutes in a dry field.

**NOTE:** Before post-cementation, the position of the post in proper relationship to the core can be visual- ized with a bleaching appliance placed over the prep and post. The appliance should have a hole in it just lingual to the incisal edge to allow for proper post position in space, i.e., so that the post is totally covered with *enamel shade Core paste* on the facial. For perfect post position within the core buildup, place *panavia 21*, place the post, apply pressure with an orangewood stick to assure complete seating, displace as much *panavia 21* as possible with *enamel shade Core paste*, position the bleaching appliance over the post and inject *enamel shade Core paste* through the hole in the appliance to “injection mold” the tooth.

**Synopsis of Post Cementation:**

* 1. **Isolate**
	2. **Prepare post space, scratch and air abrade it.**
	3. ***Ethyl alcohol* – Rinse – Dry**
	4. ***Pure 4% CHG* – Rinse – Dry**
	5. ***Tubulicid Red* – Rinse – Dry**
	6. ***NaOCl* – Rinse – Dry**
	7. **Etch 15 seconds – Rinse – *Pure 4% CHG* – Rinse – Lightly Dry – Leave moist**
	8. ***All Bond 2 Primers A & B*** 🡹 **Hydrophilic**
	9. ***9. Dry with Clean & Dry air*** 🡻 ***Hydrophobic***
	10. ***All Bond 2 resin (not in post space) – Light cure***
	11. ***ED Primer – 60 seconds – Dry***
	12. ***Panavia 21 – Place post – (Hurry!)***
	13. ***Enamel Shade Core Paste***