



Root post | DentinPost Coated



German utility patent GM 20 2008 006 129

ER root post made of glass fibre reinforced composite, pre-fabricated and provided with an adhesion enhancing layer of polymer.

The DentinPost Coated is provided with layers of silicate, silane and polymer to create a perfectly identical surface from apical to coronal between the post and the composite, with a view to achieving an optimum bond. Thanks to the uncoated handling element, an uninterrupted adhesive bond between the post and the composite can be achieved. Once the DentinPost Coated has been inserted, the handling element can be gently snapped off.

The post owes its excellent stability to glass fibres; radiopacity and a dentinlike modulus of elasticity are guaranteed. Its tooth coloured coating satisfies even the greatest aesthetic demands. The DentinPost Coated is inserted with the existing instruments from the ER system.

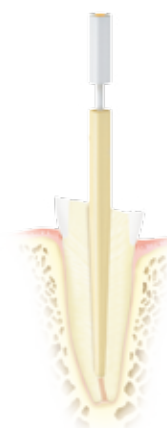
Indication

Reconstruction of partially destroyed crowns with composite.



Histological micrograph under a light optical microscope:

Horizontal section of a DentinPost Coated inserted with DentinBuild, 200 x magnification. The micrograph shows the cut glass fibres, the coating (black), the fixation composite with short embedded glass fibres and the dentine (from left to right).



Material data:

Matrix: Epoxy resin with 60% glass fibres

Coating:

Layers of silicate, silane and polymer

Bending/fracture resistance:

550 MPa (determined in experiments) or 1,500 – 1,600 MPa (Value according to ISO 14125)

Modulus of elasticity:
30 GPa

Clinical sequence:

1. Pre-operative clinical status.
2. Pre-operative radiological status.
3. The root filling was removed down to approx. 4 mm before the apex with pilot drill 183LB.
4. Reaming of the root canal to suit the chosen DentinPost Coated with reamer 196.
5. Check proper fit.
6. If necessary, shorten the post with a water-cooled diamond disc outside the mouth.
7. Disinfect the DentinPost Coated by wiping it with a cloth soaked in medical alcohol.
8. Mechanical conditioning of the canal wall by manually rotating the roughening instrument 196D 4 - 5 times in the canal. The canal is then rinsed and dried.



9. Etch the enamel and dentin for 20 seconds with 37% phosphoric acid. Rinse and blow with a gentle stream of oil-free air, making sure that the surface remains moist.



10. Apply two consecutive coats of DentinBond primer/adhesive onto the enamel and the dentin within 10 seconds. Remove excess, dry and light cure for 10 seconds.







11. Having checked the filling level in the Minimix syringe, apply DentinBuild evenly onto the DentinPost Coated. Insert the post into the root canal. Gently rotate post during insertion, applying little pressure. If the DentinPost Coated has not been shortened at an earlier stage, gently snap off the handling element.



12. The core reconstruction can be continued immediately with a DentinBuild core form. The surface of the post should be completely coated with composite.



DentinPost Coated

-  DPC1L12.000.050
-  DPC1L12.000.070
-  DPC1L12.000.090
-  DPC1L12.000.110

