



## ER System | DentinPost



### Material data of the DentinPosts:

Matrix: Epoxy resin with a glass fibre proportion of 60 %

### Bending strength:

550 MPa (ascertained through experiment) or 1,500 – 1,600 MPa (Value according to ISO 14125)

### Modulus of elasticity:

30 GPa

## Root posts made of glass fibre reinforced composite for aesthetical restorations.

DentinPosts are prefabricated tapered root posts made of glass fibres embedded in epoxy resin. In comparison to metallic root posts, the tooth coloured DentinPosts offer the added advantage of an aesthetically pleasing restoration. These tooth coloured root posts are primarily made of special unidirectional axial glass fibres, which ensures high strength. In addition, the DentinPosts are radiopaque, their elasticity modulus is similar to that of dentin and they guarantee an aesthetically pleasing result. The quality of the transition between fibre and resin is optimised by the use of silanized fibres, which gives the product reliable strength in any situation.

### The elasticity of the root posts resembles that of dentin, which prevents the formation of root fractures

The dentin-like elasticity of the DentinPost, in combination with the adhesive application, allows stress-free distribution of the forces into the tooth root. This means that root fractures are virtually excluded. The fibre reinforced composite matrix of the posts ensures strong retention to the composite core build-up. In case of post-

endodontical periapical alterations the DentinPost can easily be removed with rotary instruments.

### Indications

All partially destroyed teeth which are reinforced or built up with DentinPost can serve as prosthetic abutments. An aesthetically pleasing restoration can be achieved with all-ceramic partial crowns, crowns and veneers, without any undesired alterations in colour.

Due to their pronounced retention head, the DentinPosts X permit a strong reconstruction even in case of severely destroyed teeth. Their advantage is based on the coronal support and reinforcement of the post core build up in the area of maximum charge, i.e. at the coronal end of the post. The straightforward application of the DentinPosts is carried out using the tried and tested instruments of the ER root post system. The translucent material is fixed with dual hardening or self curing composite using the adhesive technique.

**Clinical sequence:**

1. Preoperative clinical status.

2. Preoperative radiological status.  
Root filling completed.

3. Revising root filling using pilot drill  
183LB. 3 – 5 mm remain apically.

4. Preparation of the root canal with reamer  
196, with mounted universal depth gauge  
74L12.

5. Control proper fit of DentinPost. Shorten  
post extra-orally to the desired length.

6. Radiograph for control of wall  
adaptation of the post.

7. Prior to the definite fixation of the  
DentinPost, roughen root by manually by  
twisting the roughening instruments 196D  
five times.



8. Conditioning of the root canal according  
to the instructions of the manufacturer.

9. Insert the post coated with  
composite. Curing according to the  
instructions of the manufacturer.

10. Post core build-up with  
autopolymerizing composite.

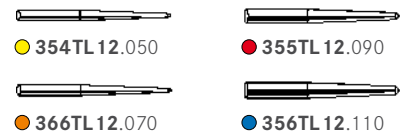
11. Final core preparation

12. Fabrication of the all-ceramic crown

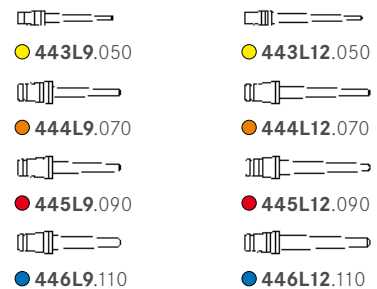
13. All-ceramic crown in situ, labial view.

14. Palatal view.

**DentinPost**



**DentinPost X**



**List of literature:**

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