APPLICATION OF **VISALYS**® CORE

1 Preparation

Remove any root filling with appropriate instruments or a reamer down to the desired depth.

2 Prepare the post bed

E.g., with the instruments from the Erlanger system (Komet)

To create an apical seal, a root filling of about 3-4 mm should be left [1] with the post bed ideally having a total length of 2/3 of the root length but it should be at least the length of the clinical crown [1, 2].

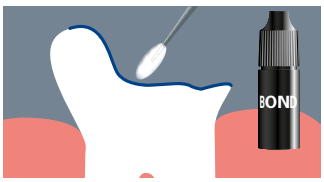
3 Adjust the root post

The preparation of the post bed should be carried out until all residual root filling material is removed from the walls and the root posts that fit the selected system drill can be inserted into the canal with slight friction.

Cleaning and disinfection of the post bed is carried out using 95% ethanol, for example. Then remove any excess ethanol from the post bed with paper points.

4 Adhesive cementation of the post

The root posts (depending on the choice and the manufacturer) can be cemented with conventional dental cements or adhesively with dual- or self-polymerizing composites (such as **Visalys**® Core). Any excess bonding material must be removed with a gentle air jet.



Selected root post; follow the root post manufacturer's instructions for preparation.

Unlike conventional cementation, adhesive cementation has the advantage of producing a single unit made up of tooth, post, and core build-up. With adhesive insertion the risk of micro leaks along the cement seam and the associated risk of bacterial invasion is also reduced or prevented.

5 Fill the root canal

Now fill the post bed with **Visalys**® Core. Insert the root posts into the canals while rotating slightly.

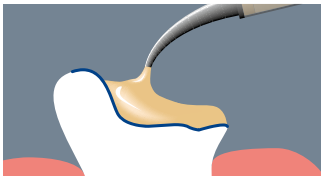
The material is initially light cured for 20 seconds (chemical curing after 5 minutes).

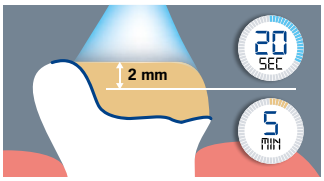
Visalys® Core in the 5 mL syringe with an endo tip; polymerization lamp

Endo tips make application into the root canal easier; the good flow properties of **Visalys**® Core allow the root post to be easily inserted.

6 Core build-up

The core can be prepared in the form of a build-up with **Visalys**® Core, producing a fixed unit of tooth, post, and build-up filling.



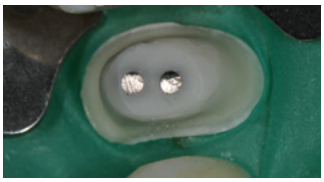


Visalys® Core (5 mL syringe with an endo tip or 25 mL cartridge), polymerization lamp

Visalys® Core is flowable and adjusts optimally to the situation but is also stable enough to freely build up a core. 20 seconds light curing for a polymerization depth of 2 mm. 5 minutes chemical curing for unlimited polymerization depth.

7 Prepare the tooth

After the build-up has set, the preparation can be carried out in line with the planned final restoration.



The preparation margins should lie completely in the dentin in the form of a ferrule design to ensure better force transmission to prevent root fractures [1–5].

Example images

Images illustrate the use by Dr Marco Dziwak based on a correctly performed endodontic pretreatment that was carried out elsewhere.

Literature:

1. DGZMK statement. "Build-up of endodontically treated teeth." (2003). http://www.dgzmk.de/uploads/tx_szdgzmkdocuments/Aufbau_endodontisch_behandelter_Zaehne.pdf
2. Sorensen J.A., Martinoff J.T. „Clinically significant factors in dowel design." The Journal of Prosthetic Dentistry 52.1 (1984): 28–35.
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4. Hemmings K. W., King P. A., Setchell D. J. „Resistance to torsional forces of various post and core designs." The Journal of prosthetic dentistry 66.3 (1991): 325-329.
5. Barkhordar R. A., Radke R., Abbasi J. „Effect of metal collars on resistance of endodontically treated teeth to root fracture." The Journal of prosthetic dentistry 61.6 (1989): 676-678.