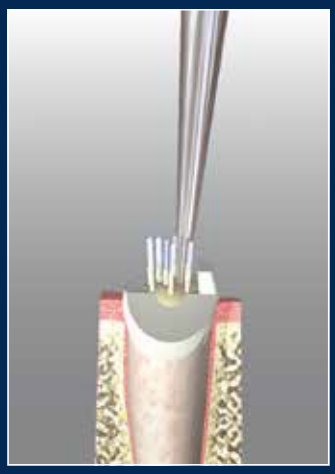


Rebilda® Post GT

BUNDLED GLASSFIBRE REINFORCED COMPOSITE POST

VOCO
THE DENTALISTS

Rebilda® Post GT

STRONG AND ADAPTABLE

The core build-up of endondontically treated teeth is part of your daily work in the dental practice, with root posts often being employed in cases of large defects in the dental substance. Root posts provide the basis for a reliable and stable build-up. However, it is not uncommon for situations to arise which limit the possibilities for using simple glassfibre root posts. Such situations are generally the result of atypical root canal anatomy, e.g. strongly curved root canals, oval root cross-sections and pronounced conicity, as in the case of maxillary anterior teeth.

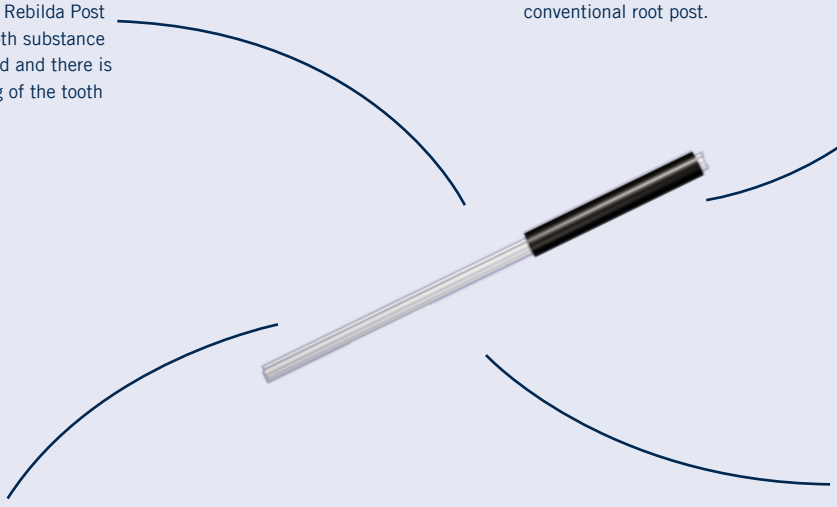
Rebilda Post GT – The post for atypical root canal anatomies

For such relatively frequently occuring situations, VOCO has now developed a glassfibre reinforced composite root post which, depending on its size, consist of a bundle of fine individual posts (0.3 mm in diameter) in varying numbers. It is characterised by high radiopacity (408 %Al) as well as high flexural strength and fracture resistance (1,040 MPa) while its elasticity is similar to that of dentine (31.5 GPa). Just like conventional root posts, Rebilda Post GT is indicated for all post / core build-ups, but its real strengths are revealed in the treatment of the situations outlined above. It is excellent for treating teeth with atypical root canal anatomies

and pronounced conicity. In addition, Rebilda Post GT is highly effective in the treatment of mechanically prepared root canals. Once the sleeve is removed, the bundle is spread and the fine individual posts are distributed in the entire root canal. In contrast to conventional root posts, this provides homogeneous reinforcement of the entire core build-up. Rebilda Post GT also offers advantages in the subsequent treatment procedure:

No need for a special drill to suit the size of the post
The post bundle adapts to the root canal, so when using Rebilda Post GT, no additional tooth substance needs to be sacrificed and there is no further weakening of the tooth structure.

Simple insertion into the root canal
The bundling of the fine individual posts with the colour-coded sleeve makes placement of Rebilda Post GT as simple as placement of a conventional root post.



Adapts to any root canal morphology
After insertion of the post and prior to polymerisation of the luting composite, the sleeve used to bundle the posts must be removed and the individual posts spread out in the root canal with a suitable instrument (e.g. a spreader). This ensures more homogeneous reinforcement of the luting composite.

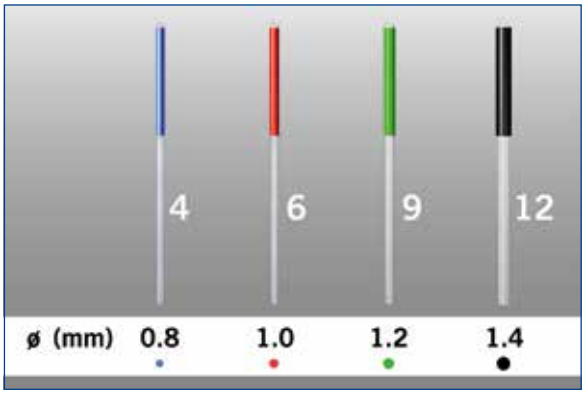
Reinforcement of the build-up
Distributing the fine individual posts fans them out in the area of the tooth crown. This enlarges the contact surface (retentive surface) between the composite and Rebilda Post GT, resulting in a stronger build-up.

Rebilda® Post GT

SYSTEMATIC CORONAL BUILD-UP

Properties

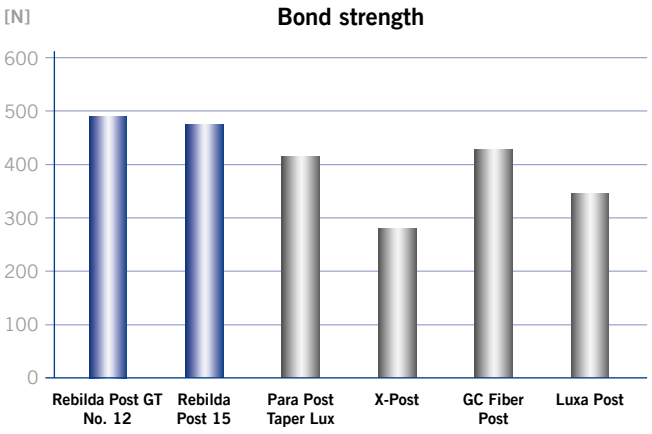
- Bundled glassfibre reinforced composite root post
  ~ approx. 70 % glassfibres
  ~ approx. 10 % fillers (> high radiopacity of 408 %Al)
  ~ approx. 20 % DMA matrix
- High flexural strength and fracture resistance (1,040 MPa)
- Elasticity similar to dentine 31.5 GPa
- Translucent
- Diameter of a single fine post: 0.3 mm



4 sizes: each with a different number of fine individual posts.

The aim of a post-assisted core build-up is to absorb any force peaks occuring in the build-up or coronal restoration via the reinforcing root post.

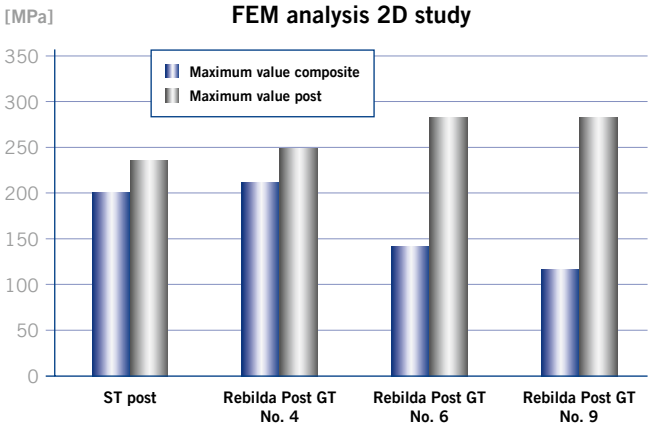
The bond strength shown below simulates a core build-up and measures the shear force required to cause the overall construction to fail. It is evident that the bond strength of Rebilda Post GT comprising 12 fine individual posts is comparable to, or higher than, that of the single-post systems with an equivalent diameter.



Source: VOCO in-house measurement

Post in combination with luting / build-up material
Rebilda Post GT No. 12 (12 × ø 0.3 mm) / Rebilda DC (VOCO)
Rebilda Post 15 (ø 1.5 mm) / Rebilda DC (VOCO)
ParaPost Taper Lux (ø 1.5 mm) / ParaCore Automix (Coltène Whaledent)
X-Post (ø 1.47 mm) / Core X Flow (Dentsply)
GC Fiber Post (ø 1.60 mm) / GradiaCore (GC)
LuxaPost (ø 1.50 mm) / LuxaCore (DMG)

In addition, the absorption of force peaks from the complete build-up by Rebilda Post GT can be calculated in an FEM analysis. This simulates the maximum loads occurring in the root post and the surrounding build-up composite caused by an applied force of 50 N. The calculated “von Mises stresses” show that even the smallest size of Rebilda Post GT (No. 4) is equivalent to a single master post (ST post) of the same material and a diameter of 1.5 mm.



Source: Raphael Richert, B. Maneuf, Dr. B. Clunet-Coste

As the number of individual posts increases, the intended result is achieved even more effectively: the stress peaks in the composite decrease with the increase in post numbers, which means that the force peaks are absorbed by the individual posts which are capable of accepting considerably higher loads. As a result, the entire build-up is significantly reinforced.

Rebilda® Post GT

BUNDLED GLASSFIBRE REINFORCED COMPOSITE POST

Indications

Core build-up restorations with root posts for endodontically treated teeth

Advantages

- Optimal restoration of mechanically prepared root canals
- Simple application
- Saves time and reduces the extent of tooth substance removal, as there is no need for preparation of the post site, which weakens the tooth less than conventional posts
- Optimal adaptation to all canal morphologies and geometries
- All materials in the set are perfectly coordinated
- **Futurabond® U**
  – safe self-cure
  – high adhesion without additional etching
- **Rebilda® DC**
  – suitable for post luting
  – cuts like dentine, very good physical properties
  – low setting temperature

Presentation

REF 1972	Set 5 posts each of (~ ø 0.8 mm, ~ ø 1.0 mm, ~ ø 1.2 mm, ~ ø 1.4 mm), Ceramic Bond bottle 5 ml, Futurabond U *SingleDose* 20 pcs., Rebilda DC QuickMix syringe 10 g dentine, accessories
REF 1973	Post 4 (~ ø 0.8 mm), 5 pcs.
REF 1974	Post 6 (~ ø 1.0 mm), 5 pcs.
REF 1975	Post 9 (~ ø 1.2 mm), 5 pcs.
REF 1976	Post 12 (~ ø 1.4 mm), 5 pcs.

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