LuxaCore Z

Core build-ups and post cementation.
Closer to nature: LuxaCore Z.

When it comes to core build-up, build-up filling and post cementation, LuxaCore Z is one of the world’s front runners. No wonder – the mechanical properties of LuxaCore Z are closer to those of natural teeth than any other material in its category.

Outstanding characteristics: LuxaCore Z cuts like dentine. This allows particularly simple and precise preparation free from grooves.

Thanks to genuine nanotechnology patented by DMG and the addition of zirconium dioxide, new top values for compressive strength and cutting characteristics have been achieved.

The high compressive strength gives stability under the crown. The right partners allow quality care to be provided perfectly: The LuxaPost composite post and the LuxaBond-Total Etch adhesive system give the dentist the best possible assistance.

Good reasons:
- cuts like dentine
- extremely high compressive strength
- excellent flow properties
- reliable curing
- one material for core build-up and cementation
With zirconium dioxide and nanotechnology for the best results.

Why all nanotechnology isn’t the same.

The use of nanotechnology generally involves particle agglomeration. In other words, the particles within the resin matrix form »lumps«.

This, however, adversely affects desired and beneficial properties such as the compressive strength and the good grinding characteristics.

The special nanotechnology in LuxaCore Z that has been patented by DMG prevents this particle agglomeration. The particles remain separated from each other and the material can then exploit the full potential of nanotechnology.

Superior values.

Luxtacore Z-Dual is closer to natural dentine than the competition in terms of cuttability.

Moreover, the proportion of zirconia gives excellent compressive strength.

This ensures top-quality, natural restorations – and this has been confirmed in figures as well, as shown in the graphs on the right.

Excellent flow properties.

The material’s outstanding flow properties guarantee optimum adaptation to the shape of cavity walls and posts.

When used as a post cement, the thin film thickness of just 20 µm is beneficial (the limit for precision cement according to ISO 4049 is 25 µm).
Fewer materials means a more reliable solution.

**Monoblock = Stability.**

More haste less speed. Just a single material for core build-up and post cementation – that simplifies the work and creates reliable restorations.

LuxaCore Z can be used with any pre-silanized post. DMG’s LuxaPost is recommended as the perfect partner.

This glass fiber reinforced composite post has a similar flexural modulus to LuxaCore Z and natural dentine.

Using just a small number of matched materials gives a very stable monoblock. Stresses can be avoided in the sensitive system comprising tooth, post, cement, and core build-up material.

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### LuxaCore Z
as a core build-up material

### LuxaPost

### LuxaCore Z
as post cement

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Placing the LuxaPost with LuxaCore Z-Dual as the cement.

Core build-up with LuxaCore Z-Dual.

Simple and precise preparation thanks to the dentine-like cutting characteristics of LuxaCore Z-Dual.

Monoblock.
Nothing beats a well-matched team.
The perfect partner to LuxaCore Z-Dual is LuxaPost, DMG’s high-quality glass fiber reinforced composite post. The system is completed by the LuxaBond-Total Etch dual-curing adhesive system.

Together, these specialist products are a finely-tuned system for professional post-endodontic restorations. All are also available together in a practical system pack.

Post & bonding agent from the same family.
DMG’s radiopaque, pre-silanized LuxaPost can be cemented perfectly with LuxaCore Z. Its flexural modulus is similar to that of LuxaCore Z – and to dentine as well.

For simple handling it is available in a convenient package that makes it easy to remove and refill the LuxaPost boxes.

The LuxaBond-Total Etch dual-curing adhesive system is particularly suitable for adhesive cementation of posts, core build-ups, inlays, onlays, crowns, and bridges.
Specially shaped Endobrushes simplify application in the root canal. LuxaBond-Total Etch is compatible with all commercially available self-curing and dual-curing materials such as LuxaCore, Vitique, and PermaCem.

You can read more about LuxaPost and LuxaBond in the following pages.
LuxaPost

Glass fiber reinforced composite post with a similar flexural modulus to dentine

True-to-life properties
As with LuxaCore Z, the properties of the material in LuxaPost are also based on the model of a natural tooth.

LuxaPost’s low flexural modulus (a measure of the elasticity or stiffness) corresponds closely to that of natural dentine. This minimizes peak stresses in the post-cement-root system and lowers the risk of root fractures.

The high degree of transparency prevents the post from shining through the tooth. It is therefore no barrier to esthetic restorations.

Pre-silanized and radiopaque
To meet the needs of your practice in full, the new generation of LuxaPost is radiopaque and already pre-silanized. This simplifies the handling and reduces the treatment cost. Additional silane is no longer needed.

For all dentists who don’t want to do without the extra silanization step, DMG still offers the DMG silane system as a reliable two-bottle system.

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
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</thead>
<tbody>
<tr>
<td>Dentine-like flexural modulus</td>
<td>Reduced risk of root fractures</td>
</tr>
<tr>
<td>Unidirectionally fibers</td>
<td>High compressive strength</td>
</tr>
<tr>
<td>Radiopaque</td>
<td>Safe working</td>
</tr>
<tr>
<td>Pre-silanized</td>
<td>Shorter treatment time</td>
</tr>
<tr>
<td>Tarpered form</td>
<td>Preparation gentle on the tooth substance</td>
</tr>
<tr>
<td>One effective drill head for each size</td>
<td>Easy preparation</td>
</tr>
<tr>
<td>No pre-drilling required</td>
<td></td>
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Competitor A  Competitor B  LuxaPost

Radiopacity comparison.
LuxaBond-Total Etch

Dual-curing adhesive system

Flexible range of applications

LuxaBond-Total Etch is the final component in DMG’s product range for post-endodontic restorations. The adhesive system is also suitable for fixing inlays. Self-curing does more than just allow it to be used in areas that the light does not reach. Even the unwanted premature curing of pools on the floor of the cavity (the »pooling effect«) can be avoided, as the curing can also be done entirely after insertion of the post. LuxaBond-Total Etch can generally be used with LuxaCoreZ-Dual for core build-up or for adhesive cementation of crowns and bridges with Vitique or PermaCem. In these cases, there is the option of curing it with light.

Reliable bond

The pre-bonding that facilitates the superior bonding properties of the system is applied after separate etching of the enamel and the dentine. It ensures that the bonding mixture (consisting of components A and B) hardens very quickly after application to the tooth material. It means that a ready-made anchor layer is present even before the introduction of the restoration material. In addition, the pre-bonding allows a longer processing time for the bonding mixture, as its curing is only accelerated when it comes into contact with the pre-bond. For easy handling, the order of application is specified on the bottles, with color codes to indicate the bond components.

<table>
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<tr>
<th>Features</th>
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<tr>
<td>Self-curing</td>
<td>Cure even without light</td>
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<tr>
<td></td>
<td>No premature polymerization of bonding »pools«</td>
</tr>
<tr>
<td>Compatible with self-curing and dual-curing materials</td>
<td>Suitable for all applications with LuxaCore</td>
</tr>
<tr>
<td>Pre-Bond for rapid curing of the bond mixture on the dentine</td>
<td>Longer working time of bonding mixture. Superior retention</td>
</tr>
<tr>
<td>Specially shaped endobrushes</td>
<td>Easier root canal application</td>
</tr>
</tbody>
</table>

Conditioning of the cavity and canal (enamel: 20 to 60 seconds, dentine: max. 15 s).

Cleaning and drying.

Applying the Pre-Bond with a specially shaped endobrush.

Mixing Bond A and Bond B.

Bonding the cavity with the mixture of components Bond A and Bond B.
### LuxaCore Z-Dual

**Packaging**
- 1 Cartridge @ 48 g
- 30 Automix-Tips
- 20 Intraoral-Tips
- 10 Endo-Tips Yellow
  - Shade Light opaque REF 213332
  - Shade A3 REF 213330
  - Shade Blue REF 213331

**Packaging**
- 2 Smartmix-syringes @ 9 g
- 10 Intraoral-Tips
- 10 Endo-Tips
  - Shade Light opaque REF 213336
  - Shade A3 REF 213334
  - Shade Blue REF 213335

### LuxaCore

**Packaging**
- 1 Cartridge @ 50 g
- 35 Automix-Tips
- 35 Intraoral-Tips
  - Shade A3
  - Shade Blue REF 110421

### LuxaPost

**Starter pack**
- 5 Posts ø 1.25 mm
- 5 Posts ø 1.375 mm
- 5 Posts ø 1.5 mm
- 1 Drill ø 1.25 mm
- 1 Drill ø 1.375 mm
- 1 Drill ø 1.5 mm
- 30 Depth markers REF 110780

**Refill packs**
- 5 Posts
  - ø 1.25 mm REF 110781
  - ø 1.375 mm REF 110782
  - ø 1.5 mm REF 110783
- 1 Drill
  - ø 1.25 mm REF 110734
  - ø 1.375 mm REF 110735
  - ø 1.5 mm REF 110736
- 30 Depth markers REF 110737

### LuxaCore Z-Post System

**LuxaPost**
- 5 Posts ø 1.25 mm
- 1 Drill ø 1.25 mm

**LuxaBond-Total Etch**
- 1 Bottle @ 5 ml Pre-Bond
- 1 Bottle @ 5 ml Bond A
- 1 Bottle @ 5 ml Bond B
- 1 Syringe @ 2 ml
  - Etching Gel, medium viscosity
- 25 Endobrushes Red
- 25 Endobrushes Black
- 3 Luer-Lock-Tips
- 1 Mixing palette

**LuxaCore Z-Dual**
- 1 Syringe @ 9 g paste, Shade A3
- 10 Smartmix-Tips
- 10 Endo-Tips REF 110862

### LuxaBond-Total Etch

**Packaging**
- 1 Bottle @ 5 ml Pre-Bond
- 1 Bottle @ 5 ml Bond A
- 1 Bottle @ 5 ml Bond B
- 1 Syringe @ 2 ml
  - Etching Gel, medium viscosity
- 25 Endobrushes Red
- 25 Endobrushes Black
- 3 Luer-Lock-Tips
- 1 Mixing palette REF 212384

**Packaging**
- 1 Bottle @ 5 ml Adhesive silane
- 1 Bottle @ 3 ml Activator
- 50 Single-use brushes
- 1 Brushholder REF 213118

**Accessories**
- 1 Automix-Dispenser Type 25 1:1 REF 110253
- 50 Automix-Tips
  - Yellow 1:1 REF 909200
- 50 Intraoral-Tips
  - Yellow REF 909201
- 50 Smartmix-Tips
  - Combi REF 212042
- 50 Smartmix-Tips Endo REF 212041
- 50 Endo-Tips Yellow REF 212280
- 25 Endobrushes Red REF 212385
- 25 Endobrushes Black REF 212386

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**DMG Chemisch-Pharmazeutische Fabrik GmbH**
Elbgaustraße 248 22547 Hamburg Germany
Fon: +49. (0) 40. 84 006-0
Fax: +49. (0) 40. 84 006-222
info@dmg-dental.com
www.dmg-dental.com