Vericore ZR PRO Zirconia – The Extra Strong, Extra Translucent Zirconia

<table>
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<tr>
<th>Zirconia Type</th>
<th>Flexural Strength</th>
<th>Chemical Solubility</th>
<th>Thermal Expansion (25 – 500°C)</th>
<th>Density</th>
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<td>Vericore ZR PRO</td>
<td>Up to 1140 MPa</td>
<td>≤31.5µg/cm²</td>
<td>Approx. 10.4 x 10⁻⁶/K</td>
<td>6.07 g / cm³</td>
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Instructions for Use for Vericore ZR PRO

The milling operation will add up to 25% to the original size to compensate for shrinkage during the final sintering process. The exact enlargement factor is on the side of the disc. It is advisable to keep large frames attached to a bar/sprue of surrounding Zirconia material on (at least) one side; this prevents distortion during the sintering process.

Indications For Use:
Vericore Zirconia blanks are made from pre-sintered zirconium dioxide intended to be used with CAD/CAM or manual milling machines. Vericore zirconia blanks are biocompatible and designed to fabricate zirconia structures for:

- Single unit anterior and posterior restorations such as crowns, inlays, onlays, and veneers.
- Single unit crowns in the anterior and posterior regions including implant supported structures.
- Bridges up to six units in the anterior and posterior regions including implant supported structures.
- Up to two (2) pontics allowed between two (2) abutment teeth.

Contraindications:
- Not recommended for cantilevered pontics.

Sintering:
Shape and finish the Zirconia before sintering. To shade, a coloring solution should be used before sintering.

- **Fast Heating Rate:** Fire the Zirconia at 10°C / minute up to 1,000°C (1,832°F).
- Fire units at 3°C – 5°C / minute from 1,000°C to a high temperature of 1,500°C (2,732°F).
- **Slow Heating Rate** (for long-span bridgework and complex cases): Fire the Zirconia at 5°C – 10°C / minute up to 900°C (1,652°F).
- Fire units at 3°C / minute from 900°C to a high temperature of 1,500°C (2,732°F).
- Final temperature/hold: at maximum temperature for 2 hours.
- Do not open furnace before it has reached room temperature.
- Sintering tray: Vented
- Beads: Place Zirconia units on 1 – 2 layers of high purity zirconia beads.

Coloring (White Disc Only):
A coloring solution may be used before sintering to establish the restoration’s base shade. The restoration may be dipped into the liquid colorant for a general monochromatic shade or colorants may be strategically brushed onto the zirconia surface to achieve a gradient effect. Follow the colorant manufacturer’s recommended technique.

Though there are many zirconia coloring products available, we can recommend two: Origin Chroma and Zirkon Zahn Coloring Liquids.

**Origin Chroma Full Contour Liquids** (B&D Dental) are available in 3 unique strengths. To achieve a Vita Classic base shade match, use 50/50 blend of the 70% and 80% strengths.

**Zirkon Zahn Coloring Liquid** and **Zirkon Zahn Aquarell Coloring Liquid** can be used to achieve shade matching with Vericore ZR Pro zirconia using a 50/50 blend of Zirkon Zahn Coloring Liquid and Zirkon Zahn Aquarell Coloring Liquid in the specific shade.

After treatment with the coloring solution, the zirconia should be dried thoroughly before sintering.

Finishing:
After the final sintering, the piece can be adjusted lightly with a wet grinding process using diamond-coated burs, if necessary. Avoid overheating.

Porcelain Veneering:
All known brands of zirconia veneering porcelain can be used. Clean the piece after final shaping with hot steam.

- Follow the porcelain manufacturer’s instructions.
Other High Quality Whip Mix Vericore Milling Materials Include:

- Unshaded Zirconia
- Shaded and Group Shades Zirconia
- PMMA Gradient Temporary
- PMMA Clear Burnout
- HTX Zirconia Extra Translucent and Group Shades
- PMMA Blue Burnout
- PMMA Ivory Try-in/Burnout
- Millable Wax Burnout