

VERICORE HT ZIRCONIA

Zirconia Type	Flexural Strength (MPa)	Chemical Solubility	Thermal Expansion (25 – 500°C)	Density g/cm ³
Vericore HT	Up to 1255	10µg/cm ²	Approx. 10.4 x 10 ⁻⁶ /K	6.07

Instructions for Use for Vericore ZR HT

The milling operation will add up to 25% to the original size to compensate for shrinkage during the final sintering process. The exact expansion 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 surface finish the Zirconia before sintering. If desired, a coloring solution may be used.

- ▶ Line the sintering tray with one layer of high purity zirconia beads.
- ▶ **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 range of between 1,450°C (2,642°F) and 1,550°C (2,822°F). Recommended target is 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 range of between 1,450°C (2,642°F) and 1,550°C (2,822°F). Recommended target is 1,500°C (2,732°F).
- ▶ Final temperature/hold: at maximum temperature for 2 hours
- ▶ Do not open furnace before it has cooled down to room temperature.
- ▶ Sintering tray: Vented

Coloring:

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. 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 with hot steam after final shaping.

- ▶ Cover the Zirconia completely with ceramic.
- ▶ 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

