

Triceram[®] CE 0483

Bonding Ceramic

Compatibility

Internal and external tests have shown exceptionally good compatibility between the synthetic bonding ceramic Triceram[®] and the following sub-structure materials:

- Titanium, cast or milled
- Zirconium oxide (TZP), ground or milled and sintered
- Milled ceramic with an appropriate coefficient of thermal expansion (approx. $9 - 10 \times 10^{-6}K^{-1}$), namely DC-Ceram and DC-Leolux

The compatibility of the ceramic was proven through bond strength tests (EN ISO 9693, Schmitz-Schulmayer-Test). Further scientific examinations were undertaken to test the fracture resistance of veneered pieces of work and coefficient of thermal expansion tolerance through temperature change tests of which all results were successful.

Universität Freiburg, Prof. Dr. Kappert H.F.: Bruchfestigkeit und Frakturverhalten von DCS-gefrästen Frontzahnkronen nach Verblendung mit Vitadur D und Triceram[®], ZWR, 2001: 134-139

Universität Freiburg, Prof. Dr. Kappert H.F.: Test Report on the Study "Strength and Thermal Shock Resistance of Zirconium-Oxide Copings Veneered with Triceram[®]"

Universität Nantes, Frankreich, Dr. Praud C.: Dissertation: Apport de la Ceramique Triceram[®] à la réalisation de protheses ceramo-metalliques sur Titane: 1999

Universität München, Bader R.-D., Aschl I., Rammelsberg P. Pospiech P.: IADR Abstracts 1021: Improved bond strength of low fusing ceramics to titanium: 2000

Universität Zürich, PD Dr. Dr. Fischer, Stawarczyk, Tomic, Strub, Hämmerle: "Effect of thermal misfit between different veneering ceramics and zirconia frameworks on in vitro fracture Load of single crowns"

Assurance

Triceram[®] successfully fulfils all demands according to the international standards EN ISO 6872 and EN ISO 9693 and is produced in correspondence with a quality management system according to ISO 9001 and ISO 13485. Cytotoxicity tests according to the international standards EN ISO 10993-5 were successfully passed.

Working and Aesthetics

Extensive technical application tests have shown that by following the instructions for use correctly, easy and reliable working procedure is guaranteed and excellent aesthetics can be achieved.

Universität Zürich, Dr. Irena Sailer, Dr. Claudia Holderegger, Dr. Roland Jung, ZTM Ana Suter: Zirkonoxid-Verblendkeramiken: Farbstabilität und technische Verarbeitung, Quintessenz Zahntechnik 5/2005, S. 498 – 512

Concluding Results

Due to the results achieved, Triceram[®] may be released as a bonding ceramic, suitable for the above named compatible sub-structure materials.

Ispringen, 30th January 2008



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