NEW PRODUCT
BASED ON THE PROVEN CERAMIR TECHNOLOGY from Doxa

BIO-CERAMIC RESTORATIVE 100% RESIN FREE

ceramir®
RESTORE
QUIKCAP

#CERAMIR

www.ceramirdental.com

M1109EN-V01

WHEN BIOACTIVITY MATTERS

Well-suited for use in pediatric and geriatric dentistry

Ceramir® Restore QuikCap is a resin-free and self-curing bioceramic restorative material. By combining a conventional glass ionomer with the Ceramir technology, a tissue friendly and bioactive material is achieved.

It can be used in the same indications as the conventional glass ionomer restoratives but with the added benefit of lower acid solubility, better chemical integration with teeth and beneficial mineralization properties.

The continuous release of calcium and fluoride ions combined with a unique level of biocompatibility make this product especially well-suited for use in pediatric and geriatric dentistry.

When to use Ceramir Restore QuikCap:

- Non-load bearing Class I and II restorations
- Deciduous teeth restorations
- Geriatric restorations
- Intermediate restorative and base material for Class I and II cavities using the sandwich technique
- Cervical (Class V) restorations
- Core build ups
- Temporary fillings
- Dentin replacement

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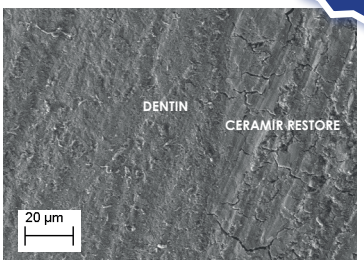
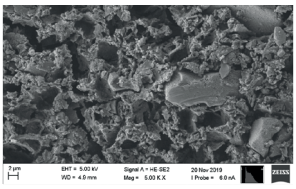
Permanent seal of tooth-material interface

Ceramir Restore QuikCap is part bioceramic and part glass-ionomer and utilizes both chemistries to create chemical integration and a permanent seal with teeth. Glass ionomers bond to the tooth structure by the attraction between the polyacid and the dentin mineral. The bioceramic material forms a **chemical seal** by growing its crystals directly from the tooth structure [1].

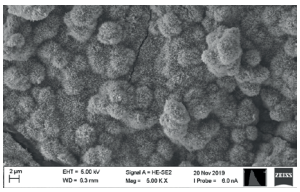


Products within the Ceramir family all induce **apatite formation** [2], which heals the material by filling crevices and sealing small interfacial gaps [3].

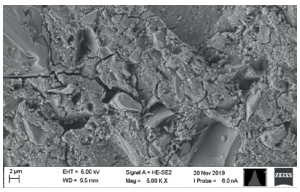
CERAMIR RESTORE BEFORE



CERAMIR RESTORE IN PBS 7 DAYS

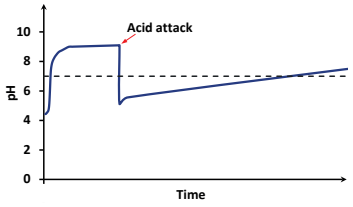


CONVENTIONAL GLASS IONOMER IN PBS 7 DAYS

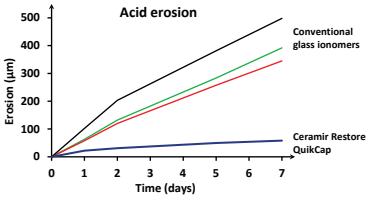


Durable

Ceramir Restore QuikCap has the ability to protect itself against acid attack by releasing hydroxyl ions and **neutralizing the acid**. While releasing hydroxyl ions the surface remodels and a dense and acid resistant surface is achieved, resulting in much **lower acid erosion** than other conventional glass ionomers [4].

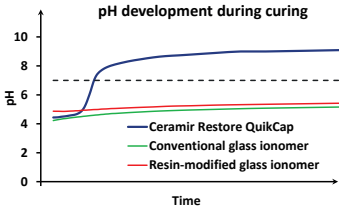


The durability and esthetic appearance of the restoration is increased by **dry polishing** the surface [4].



Low post-op sensitivity

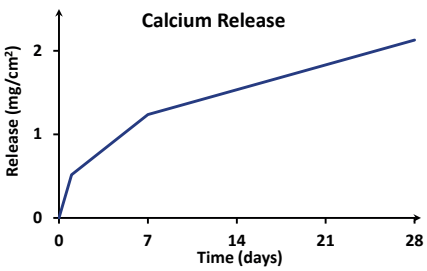
The Ceramir technology has been shown to reduce the sensitivity both during and after preparation [5]. This has been attributed to the **alkaline pH** during curing [4] as well as the cell- and biocompatibility of the material [6].

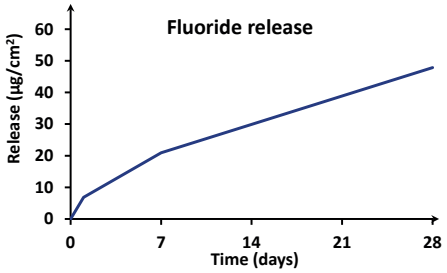


Strengthening of the surrounding dentin and enamel

Ceramir Restore QuikCap has a **continuous calcium and fluoride release**. Fluoride is well used within dentistry to help strengthen enamel, which it does by the formation of fluoride substituted hydroxyapatite.

The calcium release combined with the alkaline pH create an optimal environment to rebuild the surrounding dentin and enamel. The Ceramir technology has been shown to rebuild and strengthen the dentin after an attack by caries [7].





Key advantages:

Permanent seal of tooth-material interface

- Chemical integration with teeth
- Apatite formation

Durable

- Neutralizes acid attack
- Low acid solubility
- Dry polish for a more durable surface

Low post-op sensitivity

- Alkaline pH during curing

Strengthening of the surrounding dentin and enamel

- Continuous fluoride release
- Continuous calcium release

[1] H. Engqvist et al., Chemical and biological integration of a mouldable bioactive ceramic material capable of forming apatite in vivo in teeth, Biomaterials 2005

[2] J. Loof et al., A comparative study of the bioactivity of three materials for dental applications, Dental materials, 2008

[3] S.R. Jefferies et al., Preliminary Evidence That Bioactive Cements Occlude Artificial Marginal Gaps, Journal of Esthetic and Restorative Dentistry 2015

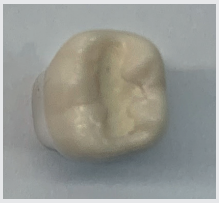
[4] Data on file, Doxa Dental AB

[5] S.R. Jefferies et al., Prospective Observation of a New Bioactive Luting Cement: 2-Year Follow-Up, Journal of Prosthodontics 2011

[6] J.C. Marvin et al., In Vitro Evaluation of Cell Compatibility of Dental Cements Used with Titanium Implant Components, Journal of Prosthodontics, 2018

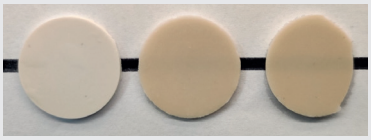
[7] L.S. Alhuwayrini, Dentin Remineralization Around Ceramir Restoration, thesis from University of Pennsylvania 2016

Shade development



After treatment

24 hrs in PBS



6 min, 1 day, and 7 days.

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