



NEW

Omyadent FCC



A novel multifunctional
oral care ingredient



Omyadent FCC's are tailored to meet the needs of functional oral care product



Omyadent provides

- Desensitization
- Remineralization
- Gentle Cleaning

Omya has developed a new generation of mineral pigments: functionalized calcium carbonate (FCC) - a multifunctional ingredient that acts as a high-efficiency

carrier with controlled release properties and as an active for oral care applications.

Omyadent Technology

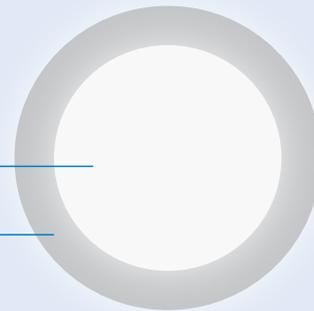
The Omya proprietary FCC Technology allows for the design of a variety of products. A broad spectrum of surface properties, compositions and particle shapes can be provided.

In this process the mineral composition is modified such that new surface features develop and the particles become porous.

High surface area
High reactivity

Calcium Carbonate

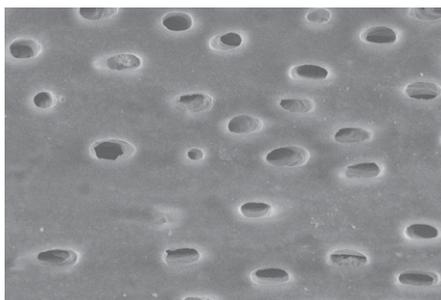
Hydroxyapatite



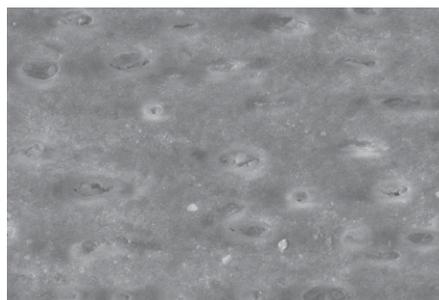
Desensitizing

Dentin hypersensitivity is becoming more and more of a concern in today's life. Excessive brushing, dental bleaching and acid-erosion are only some of the causes for sensitive teeth. One approach to fight dentin hypersensitivity is to block the tubules in the exposed dentin layer. Thanks to Omyadent's porous structure, the tubu-

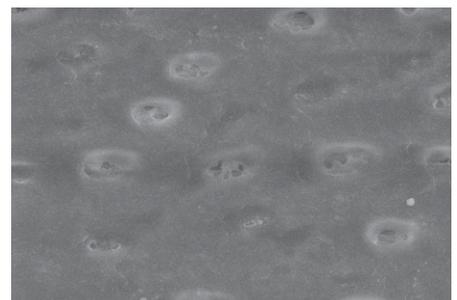
les are blocked, but not completely closed. This leads to reduced dental sensitivity, and also maintains the natural conditions in the fluid filled tubules. Omyadent's hydroxyapatite surface makes it more resistant against acid attack than either natural or precipitated calcium carbonates.



Bovine dentin



Bovine dentin
Omyadent treated



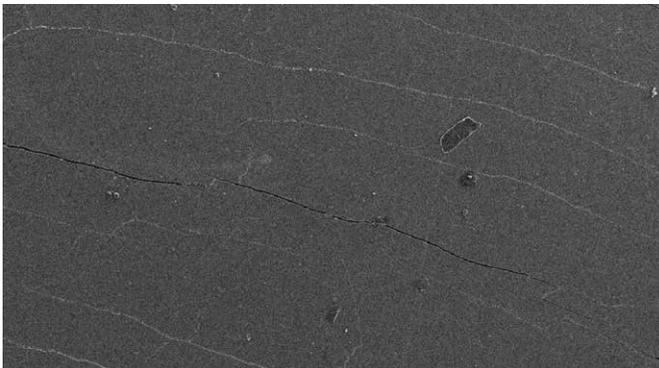
Bovine dentin, Omyadent treated,
after acid attack (0.2M acetic acid)

Remineralization

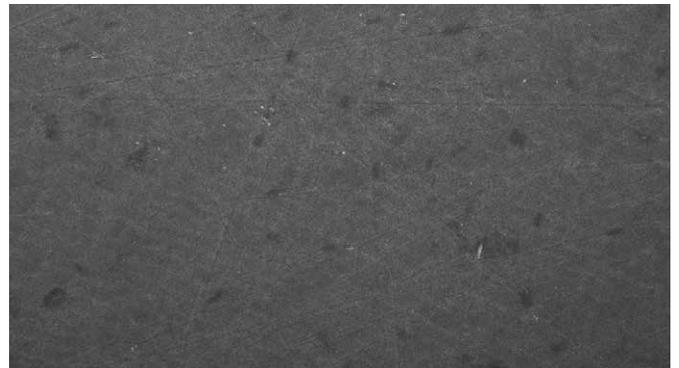


Omyadent is a source of calcium and phosphate, having a core of calcium carbonate and a shell of hydroxyapatite. **Omyadent**'s high surface area assures high reactivity and efficient remineralization of the enamel,

repairing microscopic defects. Consequently, **Omyadent** improves the tooth whiteness and smoothens the surface of the teeth.



Demineralized enamel, magnification 1000x

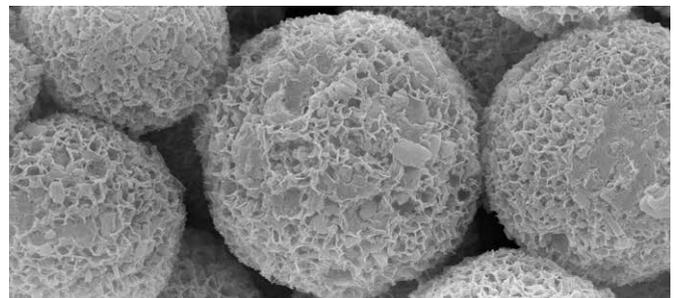
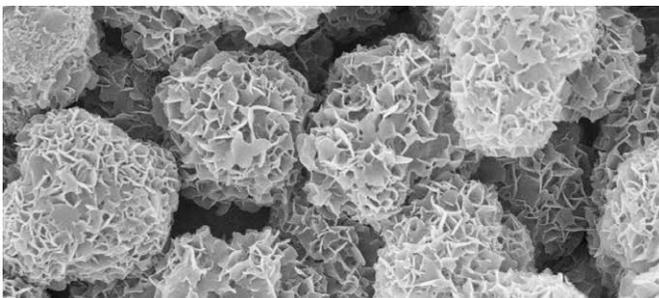


Remineralized enamel (**Omyadent** dentifrice with 1450ppm sodium monofluorophosphate), magnification 1000x

Cleaning Effect

Omyadent provides gentle cleaning with low abrasion (relative RDA < 65).

Omya has a profound understanding of how **Omyadent**'s particle size, shape, composition and morphology impact its cleaning performance as well as its abrasivity.



Release Agent and Carrier

Moreover, due to its porous nature, **Omyadent** is an efficient carrier and release agent for such active ingredients as flavors, vitamins or antimicrobials.



Natural Products for Sustainability



Omya - Swiss based Corporation

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**THIS PAPER CONTAINS
OMYA PIGMENTS**

V:15133

Omya International AG | Baslerstrasse 42 | 4665 Oftringen | Switzerland
info.cosmetics@omya.com | www.omya.com

