



nanoXIM
CAREPOWDER

MICRO-HYDROXYAPATITE



THE FUTURE OF ORAL CARE: AN ALTERNATIVE TO FLUORIDE

✓ To enhance enamel remineralization

✓ To prevent dental hypersensitivity

✓ To restore natural whiteness



ABOUT US

FLUIDINOVA was founded in 2005 in Portugal as a specialized manufacturer of synthetic nano-hydroxyapatite and tricalcium phosphate materials, which are commercialized worldwide for different applications (e.g., oral care, biomaterials, 3D printing, food-supplements, biotech, catalysts, etc), under the brand name nanoXIM®.





Can I effectively develop a fluoride-free oral care product?

YES, you can!

An alternative to fluoride is Hydroxyapatite – a 100% safe and non-toxic ingredient to oral care products and routine.

The nanoXIM•CarePowder is a micro-hydroxyapatite ingredient produced and marketed by FLUIDINOVA.

Its excellent performance is related to its high similarity to natural teeth.

BENEFITS



Pain reduction



Smooth and protected tooth surface



Dental hypersensitivity prevention



Enamel remineralization



Cavity prevention



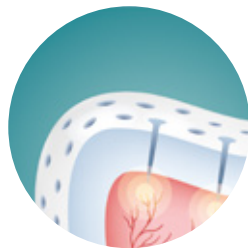
Restored natural whiteness



What is Hydroxyapatite?

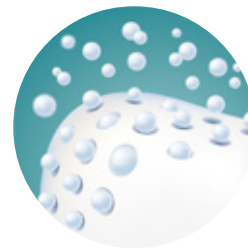
Hydroxyapatite (HAp) is a form of calcium phosphate that makes up to 97% of tooth enamel and 70% of dentin. Since it is a key component of teeth, it is biocompatible. Our body recognizes HAp as a familiar compound.

Thus, products that incorporate HAp simulate the natural composition and structure of teeth, which is why they work effectively.



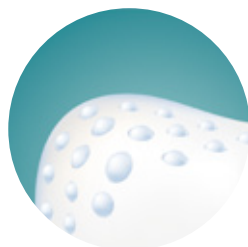
1.

Dental hypersensitivity, a short and sharp pain, prevents us from drinking hot coffee, ice cream, or even an orange juice without feeling pain. The action of certain foods and drinks (hot, cold, acidic) are considered aggressions to our teeth, resulting in the exposure of dentin tubules and the underlying nerves to the external environment (the dentin loses its protective covering).



2.

HAp has a great potential in the treatment of dental hypersensitivity, as it can be incorporated inside the dentin tubules. Consequently, these become sealed and pain is reduced.



3.

As a result, a new layer is formed, remineralizing the tooth enamel and protecting the tooth surface, preventing the appearance of new cavities and making it resistant to acid attacks of our favourite meals.

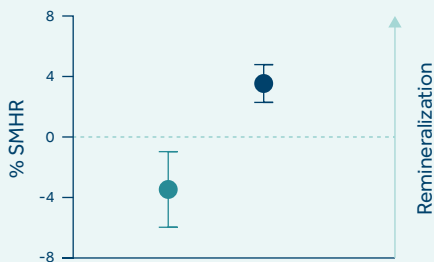


4.

The deposition of HAp on the enamel surface improves its smoothness for better light reflection, and consequently brighter and whiter teeth.

The effectiveness of nanoXIM-CarePowder on enamel remineralization was confirmed in the following study:

The enamel remineralization potential of a 5 % hydroxyapatite nanoXIM-CarePowder toothpaste tablet was evaluated by treating demineralized enamel lesions during 2 minutes, twice a day for 20 days. A similar toothpaste tablet without hydroxyapatite was used as a control. Both toothpaste tablets were fluoride-free.



● 0% nanoXIM-CarePowder: -3.57 ± 0.62

● 5% nanoXIM-CarePowder: 3.22 ± 0.30

Percentage of surface microhardness recovery (SMHR) for the two toothpaste tablet (0% and 5 % nanoXIM-CarePowder), after 20 days of treatment. Higher SMHR represents a superior enamel remineralization capacity.

This study showed that nanoXIM-CarePowder is an effective remineralizing agent when incorporated in toothpaste tablets – with a 6.8 % outperformance of SMHR, compared to a toothpaste tablet without nanoXIM-CarePowder.

Reference: Therametric Technologies, *In Vitro* Enamel Remineralization Testing Using a pH Cycling Model (2022).

FEATURES

- Synthetic fine white powder
- Small size microparticles
- High purity
- Biocompatible
- Vegan
- Safe if accidentally swallowed

nanoXIM-CarePowder is the recommended ingredient for dry formulations.

It is incorporated in tooth powders, toothpaste tablets and chewing gums.



Tooth Powders



Toothpaste Tablets



Chewing Gums



We aim to innovate
and improve the
Oral Care industry.

If you want to be part of this
journey, contact us! ↓

nanoxim@fluidinova.com



CONTACTS

(+351) 220 119 746
nanoxim@fluidinova.com
www.fluidinova.com

HEADQUARTERS

Rua de Rosa Jacome Felgueiras, 57
4475-188 Maia, Portugal

SOCIAL MEDIA

 /fluidinova
 /hydroxyapatite.fluidinova
 /fluidinova
 /fluidinovaSA