



**Sens**  **ut**®

N A N O F L U O R A P A T I T E



INTERNATIONAL DENTAL SUPPLY

# PROFESSIONAL TREATMENT

## INNOVATIVE DESENSITIZING TREATMENT

Based on a special **patented silicone protective film** in suspension filled with Fluorapatite and Calcium Fluoride nanoparticles.

## QUICK AND EASY TO APPLY

**Monocomponent, self curing and no etching required,** it binds mechanically and chemically to dentin and enamel, occluding dentinal tubules and repairing demineralized enamel. Colourless and invisible.

## IMMEDIATE AND LONG-LASTING ACTION

It creates an acid-resistant film that with an immediate and long-lasting action blocks dentin sensitivity caused by heat, chemical and osmotic stimuli.

## REMINERALIZING ACTION

Thanks to its fillers (Amine fluoride, Nano calcium fluoride and Nano fluorapatite) it can **remineralize enamel** and **facilitate the development of secondary dentin.**

## WITH HOME MAINTENANCE

Each professional treatment includes the SensOut toothbrush for sensitive teeth and SensOut desensitizing toothpaste, with fluorapatite nanoparticles, with which it develops a **synergetic action at home.**

## INDICATIONS

- Treatment of hypersensitive tooth services
- Treatment of demineralized enamel
- Desensitizing after scaling and professional cleaning
- Protective treatment after whitening procedures



# HOME TREATMENT

## TOOTHPASTE FOR SENSITIVE TEETH

**SensOut Toothpaste** is indicated for the treatment of dentin sensitivity and as a continuation of the SensOut professional desensitizing treatment with which it develops a synergetic action at home.

Also based on nanotechnology, it contains **Zinc citrate** and **Potassium Chloride** for effective action against dentin sensitivity and **Nano Fluorapatite** to stimulate the remineralization and the occlusion of dentinal tubules and enamel microfractures. It also contains **Panthenol** and **Vitamin E** which have a soothing effect on gingival tissues.

SensOut Toothpaste, which is delicate on teeth and gums because of its **low abrasiveness**, and thanks to the **reduced amount of foam** and a **pleasant aroma**, ensures prolonged action for the effective removal of bacterial plaque and greater assimilation of its principles.



### INGREDIENTS

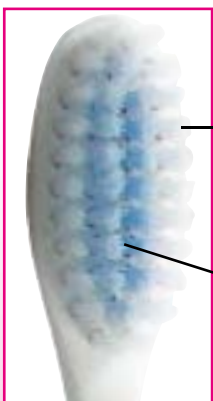
Water, Hydrated Silica, Glycerin Sorbitol, Aroma, Titanium Dioxide, Cellulose Gum, Potassium Chloride, Xylitol, Zinc Citrate, Sodium Saccharin, Trisodium Phosphate, Sodium Fluoride, Disodium Cocoyl Glutamate, Tocopheryl Acetate, Eugenol, Cinnamal, Geraniol, Panthenol, CI 42090, Nano Fluorapatite

**SensOut Toothpaste**  
is a CE medical device

## TOOTHBRUSH FOR SENSITIVE TEETH

### SensOut Toothbrush

with controlled softness bristles for effective plaque removal without damaging teeth or gums.



#### Microfine external bristles

for effective cleaning of the interdental surfaces and a delicate massage along the gumline.

#### Microfiber internal bristles

for removing bacterial plaque without affecting the enamel.



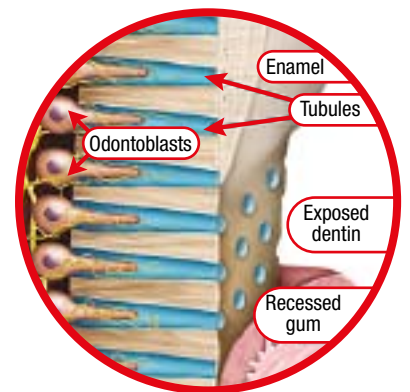
# DENTIN HYPERSENSITIVITY

Dentin hypersensitivity is a complex phenomenon that has yet to be completely understood. However, there are a number of situations that create a predisposition for hypersensitivity:

- Chronic gum inflammation
- Natural ageing processes
- Inappropriate brushing techniques
- Chronic trauma due to bad habits
- Periodontium surgical procedures
- Use of highly abrasive toothpastes or toothbrushes with bristles that are too hard
- Consumption of acidic foods

Dentin hypersensitivity is a very common disorder and in fact affects one out of three people. Symptoms include pain, that is generally localized in teeth with exposure of dentinal tissue, caused by various types of heat, tactile, chemical and osmotic stimuli which arise in the absence of other dental pathologies.

Chronic trauma such as friction, abrasion and erosion of vital tooth elements can remove the enamel or the cementum in some points that normally protect the dentin, leading to exposure and direct contact between the intraoral external environment and the tooth pulp tissue through the dentinal tubules.



Painful symptoms occur more frequently in patients suffering from periodontal disease and as a transient phenomenon in patients undergoing scaling, root planing, periodontal surgery and teeth whitening.

The therapeutic approach for treating dentin hypersensitivity almost always involves the topical application on the hypersensitive areas of preparations designed to occlude the dentinal tubules and often requires multiple sessions. The vulnerability of this mineral film to acid attacks and brushing may nullify the dental sector's efforts to cure the bothersome dentin hypersensitivity.

# OPERATING PROTOCOL

## IN-OFFICE PROFESSIONAL TREATMENT



Cervical area with exposed dentin

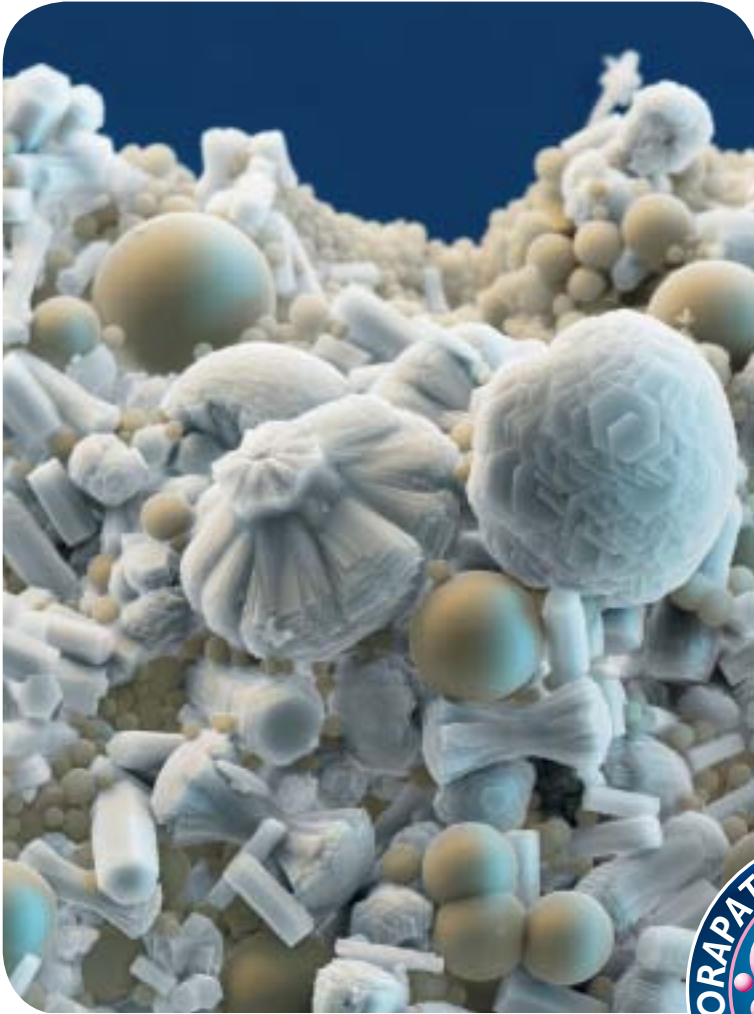


Application of SensOut Professional



Post-application sensitivity test

# NANO FLUORAPATITE



The image on the left shows fluorapatite crystals in various stages of growth (in the laboratory). Elongated and hexagonal at the beginning, they become more spherical as they develop. Fluorapatite transfers fluoride ions to the enamel, repairing any damage. Thanks to the nanometric dimension of the mineral particles in SensOut Professional they penetrate inside the dentinal tubules and enamel microfractures. With mass being equal, the nanoparticles have a very high external surface area compared to the corresponding larger particles and thus guarantee higher reactivity and strongly tend to form aggregates and agglomerates. As a result, the Fluorapatite and Calcium Fluoride nanoparticles in SensOut Professional facilitate the remineralization of enamel and the occlusion of the dentinal tubules.

The silicone base in which the nanoparticles are immersed enhances adhesion to dental surfaces, making them impermeable while increasing protection against acid attacks and brushing.



## HOME MAINTENANCE

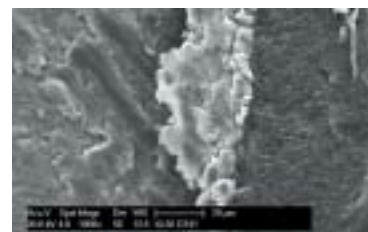


# CLINICAL STUDIES

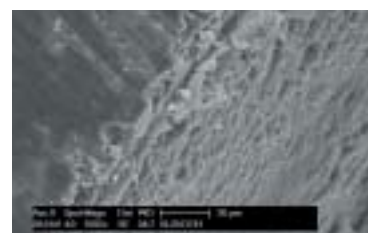
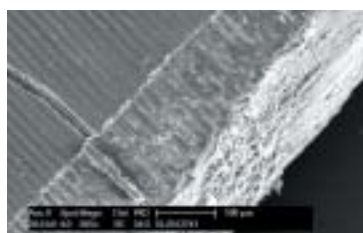
In a comparative in vivo study between SensOut and other desensitizing products, SEM images of extracted teeth, after brushing for one week with manual, electric and sonic toothbrushes, demonstrated that:

- SensOut spreads out perfectly, adhering to tooth surfaces
- The dentinal tubules are covered with an efficient, long-lasting coating that persists even after brushing and prolonged exposure in the oral cavity
- Other products are not as durable as SensOut
- Patients have reported immediate relief that lasts over time
- The SensOut treatment is perfectly biocompatible

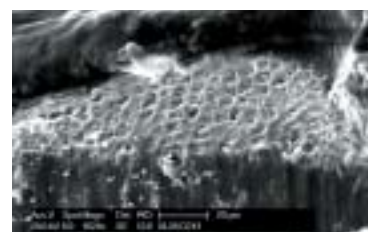
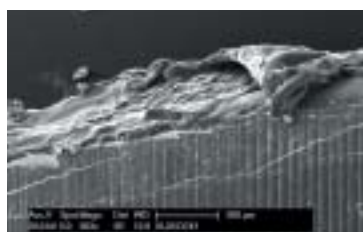
Giacomo Derchi – Tuscan Stomatologic Institute



Tooth-SensOut-resin interface



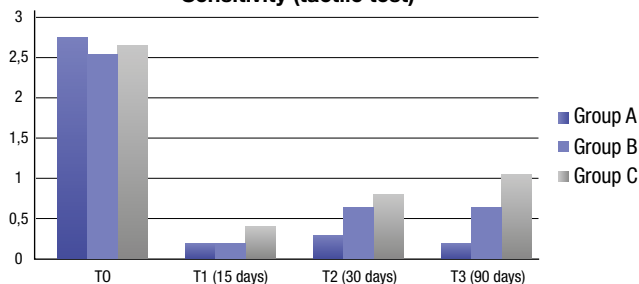
Dentinal wall with completely coated tubules



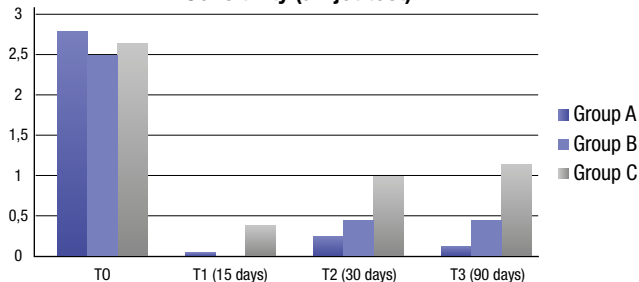
Penetration of the nanoparticles into dentinal tubules



Sensitivity (tactile test)



Sensitivity (air jet test)



A clinical study on 60 patients evaluated the changes in tooth sensitivity during scaling and root planning procedures, comparing three different desensitizing protocols:

- SensOut Professional + home maintenance
- SensOut Professional (without maintenance)
- Gluma Desensitizer PowerGel (Heraeus Kulzer)

This study, verifying the short and medium-term sensitivity to tactile stimuli and air jets, demonstrated the better performance of the SensOut treatment compared to the glutaraldehyde and pyrogenic silica varnish (Gluma).

The study also demonstrated how the use of SensOut toothpaste can maintain low dentin sensitivity over an extended period of time.

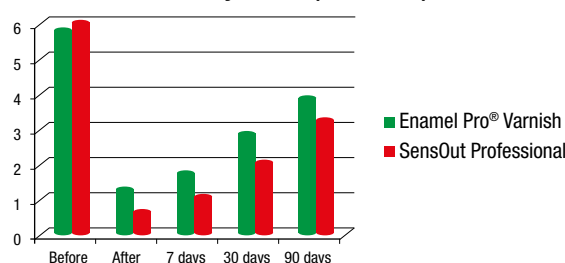
Chiara Lorenzi, Annamaria Genovesi  
Italian Dental Journal - September 2014









A study on 30 patients compared the SensOut Professional treatment with a 5% sodium fluoride and amorphous calcium phosphate varnish (Enamel Pro® Varnish). The study demonstrated how immediately and over the short-medium term SensOut produces the best and longest lasting effects compared to fluoride varnishes.

Eleonora Barbieri, Luca Turella, Marco Baldoni  
Hygiene Tribune Italian Edition - April 2014

Sensitivity values (VAS Scale)



# PRODUCT LINE

		Container	EAN 13	Packaging code
	<b>Professional treatment</b> CE 0546	SensOut Professional with applicators + SensOut Toothpaste	NA	<b>347002</b> 1 individual treatment
	<b>Toothpaste</b> CE	Tube (50 ml)		<b>347010</b> 24-tube display (50 ml)
	<b>Toothbrush</b>	Toothbrush		<b>347015</b> 12-toothbrush display



  
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17100 Savona - Via Valletta San Cristoforo, 28/10  
Tel. +39 019 862080 - Fax +39 019 2304865 - [info@idsdental.it](mailto:info@idsdental.it)  
[www.idsdental.it](http://www.idsdental.it)