

TOOTH DESENSITIZER

TEETHMATE™ DESENSITIZER

**Creating
Hydroxyapatite**

That's How You Treat Sensitivity





THE HUMAN BODY'S STRONGEST MINERAL

Biocompatibility

TEETHMATE DESENSITIZER (TMD) is composed of two different types of calcium phosphates which react under water to form Hydroxyapatite (HAp).

This product is free from glutaraldehyde, gluten, methacrylates and colophony resins; therefore, making it highly biocompatible with no gingival irritation.

This mildly alkaline product is easy to apply (Figure 1) without any extra measures needed for isolation. TMD can be used safely in both children and adults.

DOES IT REALLY WORK?

92%*

of dentists agree that TEETHMATE DESENSITIZER is very effective.

*285 Japanese dentists already answered this question. 92% of the dentists said that TEETHMATE DESENSITIZER is very effective.

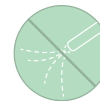
Easy to use, immediate relief from sensitivity

TEETHMATE DESENSITIZER (TMD) is easy to apply due to its high biocompatibility and does not require air-blow, or light-cure.

It has no film thickness and can be used easily under restorations.

As the calcium phosphate components harden quickly to form hydroxyapatite, relief from sensitivity is immediate.

NO
AIR BLOW



TMD is tolerant of the moisture in the oral cavity due to its unique hardening mechanism; no air blow required.

NO
LIGHT-CURE



Self-hardening of the calcium phosphates creates HAp without the use of a curing light.

NO FILM
THICKNESS



No side effects with the use of adhesives. TMD covers only the dentinal tubules or enamel cracks; there is no film thickness.

Long term durability

HAp formation can be experimentally proven through XRD analysis (Figure 3). This formation contributes to long term durability. Open dentinal tubules that were treated with TMD showed evidence of sealed tubules after 5 months storage in artificial saliva (Figure 4) in vitro.

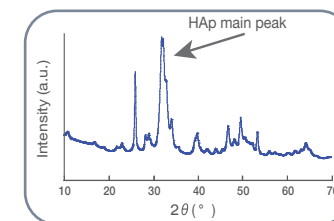


Figure 3: XRD Analysis confirms HAp formation.

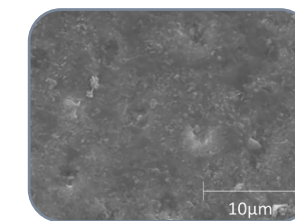


Figure 4: SEM Photo of Dentin Surface after 5 months storage in artificial saliva (37°C).

Data Source: Kuraray Noritake Dental Inc.

No Interference with Adhesives

Application of TMD prior to application of adhesives does not reduce bond strength (Figure 5). This is especially helpful for clinicians who are using etch and rinse adhesives.

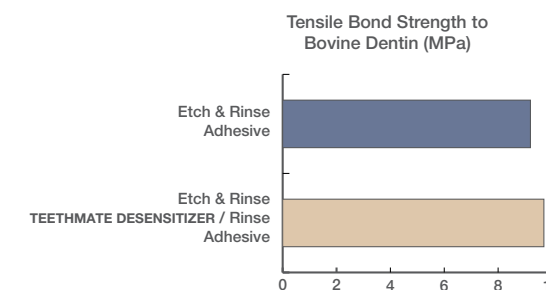


Figure 5: Influence on adhesive strength using Etch & Rinse Adhesives.

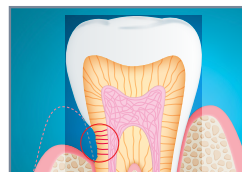
Data Source: Kuraray Noritake Dental Inc.

Can Be Used for Most Sensitivity Challenges

This can be used in a wide variety of treatment approaches for treating sensitivity:



Scaling/Root Planing



Exposed Dentin
(Ex: Cervical Hypersensitivity)



Before/After Bleaching

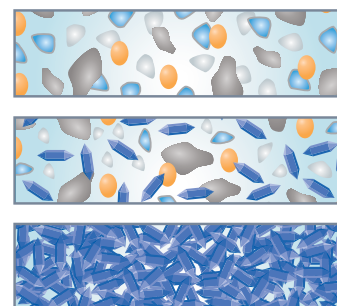


Dentin Prepared for
Prosthesis

Smart Technology*

TMD actually crystallizes to form HAp, nicely sealing dentinal tubules and enamel cracks. The newly created HAp acts as if it were the patient's own. How is it possible to build HAp?

It's about the right calcium and phosphate ion ratio and the right pH combined with Kuraray Noritake Dental's special technology. approaches for treating sensitivity:



- Tetra calcium phosphate(TTCP)
- Dicalcium phosphate anhydrate(DCPA)
- H₂O
- Others
- HAp

Figure 2: Schematic diagram showing reaction phases.

* The fundamental HAp technology was developed by the ADAF (American Dental Association Foundation) - Paffenbarger Research Center. The basic manufacturing method was developed by Dr. Laurence C. Chow and Dr. Shozo Takagi in the research center and Dr. Akiyoshi Sugawara who practices as a dentist in Tokyo. Kuraray Noritake Dental modified the powder, manufacturing method, additives etc. to optimize the technology for desensitizer usage. Please refer to the literature below when you wish to find out more about this fundamental technology.

1. Brown, WE.; Chow, LC.: A new calcium phosphate setting cement. J Dent Res, 62, 672, 1983.

2. Sugawara, A.; Chow, LC.; Takagi, S.: An in vitro study of dentin hypersensitivity using calcium phosphate cement. J J Dent Mater, 8(2), 282-292, 1989.



Tips for the maximum performance;

Apply the paste more than 30 sec. with rubbing motion.

Repeat the application 2-3 times if the sensitivity is remaining.

This products does not damage tooth structure or gum, and has no film thickness.

Simplified, universal restorative system without separate activators *



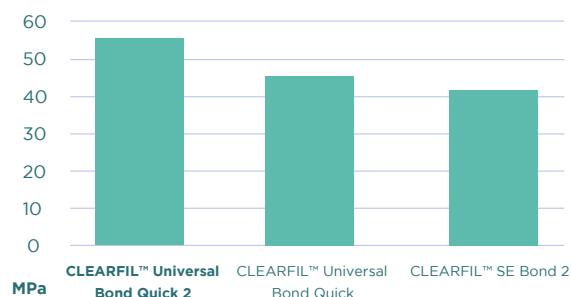
*In cases where CLEARFIL™ DC CORE PLUS and PANAVIA™ SA Cement Universal are used. When using with other manufacturers products, please refer to the IFU for specific instructions.

Ideal companion for immediate dentin sealing with a strong bond layer

Strong adhesive layer with higher mechanical strength will be an ideal companion to seal and protect dentin.

Test conditions: Samples (beam shape; 1.0 x 1.0 x 10 mm):
1) Light curing of bonding material with solvent distilled away
2) Stored in water at 37°C for 24 hours.
3) Ultimate tensile strength is measured by autograph (crosshead speed: 1mm/min)

Ultimate tensile strength



K. Hosaka et. al., (Tokushima Univ.)
The 159th Meeting the Japanese Society of Conservative Dentistry Program A7

Direct restorations using light-cure composite resin

1 Tooth pretreatment
Choose either etching procedure

a. Self-etching (Move to section 2)

b. Selective-etching
Apply K-ETCHANT Syringe to the uncut and/or cut enamel, then rinse and dry **10sec.**

c. Total-etching
Apply K-ETCHANT Syringe to the entire cavity (enamel and dentin), then rinse and dry **10sec.**

2 Apply BOND with a rubbing motion
No waiting time

3 Dry by blowing mild air until BOND does not move*
5sec.+

4 Light-cure**

5 Place composite resin, light-cure and finish

*1 Use a vacuum aspirator to prevent BOND from scattering.

** Refer to Table below for light-curing time.

Dental curing unit and curing time			
Type	Light source	Light Intensity	Light-curing time
Halogen	Halogen lamp	More than 400 mW/cm ²	10 seconds
		800-1400 mW/cm ²	10 seconds
LED	Blue LED*	More than 1500 mW/cm ²	5 seconds

The effective wavelength range of each dental curing unit must be 400-515nm.
*Peak of emission spectrum: 450-480nm

Ordering information



#4041-KA
Bottle Standard Kit
1-Bond (5ml)
1-K-ETCHANT Syringe (3ml)
& 20 Needle Tips
1-Dispensing Dish
1-Light-Blocking Plate
50-Applicator Brushes
(Fine Silver)



#4042-KA
Bottle Refill
1-Bond (5ml)



#4044-KA
Bottle Value Pack
3-Bonds (5ml each)



#4046-KA
Unit Dose Standard Pack
50 Unit-Dose
1-K-ETCHANT Syringe (3ml)
& 20 Needle Tips
50-Applicator Brushes (Fine Silver)

#4047-KA
Unit Dose Value Pack
100 Unit-Dose
1-K-ETCHANT Syringe (3ml)
& 20 Needle Tips
100-Applicator Brushes (Fine Silver)

YOUR CONTACT

Kuraray America, Inc.

32 Old Slip Phone (800) 879-1676
Floor 7 Fax (888) 700-5200
New York, NY 10005 E-mail info@kuraraydental.com
Website www.kuraraydental.com

- Before using this product, be sure to read the Instructions for Use supplied with the product.
- The specifications and appearance of the product are subject to change without notice.
- Printed color can be slightly different from actual color.

"CLEARFIL", "CLEARFIL MAJESTY" and "PANAVIA" are registered trademarks or trademarks of KURARAY CO., LTD.



Kuraray Noritake Dental Inc.

1621 Sakazu, Kurashiki, Okayama 710-0801, Japan

R Only

