

REALITY

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2015

The Ratings | DESENSITIZERS – OFFICE

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(4.4)

Teethmate Desensitizer

INTRODUCTION/MANUFACTURER'S CLAIMS

As long as our patients have sensitive teeth, manufacturers will continue to bring new desensitizers to the market. Kuraray, the company who has brought us such stalwart products such as Panavia and Clearfil SE Bond, has decided it was time to throw its hat into ring with Teethmate Desensitizer.

Unlike numerous other products in this category that have cloned the Gluma formulation of glutaraldehyde and HEMA, Teethmate Desensitizer takes a radically different approach. In the first place, it comes in two components: powder and liquid. Yes, that's correct, powder and liquid. And of course, you have to manually mix these components in a dispensing well.

As the story goes, when you mix the two components and apply it to teeth, it crystallizes to form hydroxyapatite, which presumably seals dentinal tubules and heals enamel fractures.

It is being promoted virtually across the board, including for sensitive root surfaces, before/after bleaching, and under restorations. You don't have to evaporate any solvent, it doesn't require light curing, and it has no film thickness.

COMPOSITION

Powder Tetra calcium phosphate (TTCP) and dicalcium phosphate anhydrate (DCPA).

Liquid Water and a preservative.

Most (65%) evaluators liked the fact that it does not contain strong chemicals, while the other 35% were more concerned with its effectiveness regardless of what it contains. One evaluator noted that it is a truly biomimetic approach to treating sensitivity and questioned why would you want to use polymers or other agents when you can use the "real" thing, aka hydroxyapatite? On the other hand, another evaluator stated that using chemicals like glutaraldehyde and HEMA haven't caused much of a problem, so why the concern?

RAVES & RANTS

- + Amazingly effective
- + No harsh chemicals
- Powder-liquid formula requires hand-mixing
- Rinsing adds an extra step

MANUFACTURER

Kuraray

www.kuraraydental.com

PRICES

Set

\$120.00 (Since this is a powder/liquid, we cannot calculate its unit price/ml, but according to the manufacturer, each use costs \$0.80)

SHELF LIFE

2 years



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pH

10 (according to the manufacturer).

VISCOSITY

The thick viscosity mixture was deemed to be acceptable by most (90%) evaluators, with only 10% considering it to be too thick.

ODOR

Most (65%) evaluators thought it has virtually no odor, while the other 35% found it to be about the same as other desensitizers.

COLOR

White.

USE

Clean the tooth as you would with any product. All evaluators except one blotted the sensitive areas after rinsing the cleaner, leaving them moist, while the lone holdout dried the teeth.

Then, for one tooth, you dispense one small scoop of powder into the supplied dispensing well and add one drop of liquid. For 2-3 teeth, use the large scoop and two drops of liquid. With the supplied applicator tip (very small), you mix the components for at least 15 seconds to produce a relatively thick paste, which you then apply to the teeth for 30 seconds using a rubbing-like motion, followed by rinsing it off. If necessary, you can repeat this sequence several times.

Mixing is surprisingly easy – the powder wets very quickly and producing the slurry is almost automatic. Applying it to the tooth is also easy. Since it's a paste, it's not runny and rubbing it into the tooth is not an issue. And even though the paste is white, rinsing it off basically leaves the tooth without any residual material, thus confirming the claim of no film thickness.

As far as dispensing powder and liquid, most (60%) evaluators did not consider it a big inconvenience, while the other 40% thought it was cumbersome. Mixing wasn't a major issue for 75% of the evaluators, while the other 25% considered it to be cumbersome. One evaluator noted that mixing with the applicator tip was not very efficient and you needed to be sure the bottle of liquid was perfectly vertical to get the drops in the correct volume.

Rubbing/scrubbing it into the sensitive area was the preferred application method of most (65%) evaluators, while the other 35% used gentle agitation. Although 30 seconds of application was most typically used (75%), a few evaluators applied it longer and several used more than one application.

And, despite the thickness, most (80%) evaluators thought applying it was easy, especially since it isn't

runny. Nevertheless, the other 20% still preferred a liquid desensitizer.

Rinsing it off was also found to be easy by most (90%) evaluators, while the other 10% just thought the rinsing step required too much effort.

EFFECT ON BOND STRENGTH

Slight positive effect.

EFFECTIVENESS

Under restorations placed with etch/rinse adhesives

Most (75%) evaluators reported it worked all the time, while the other 25% found it worked some of the time. One evaluator noted that this parameter is more difficult to verify since he rarely gets sensitivity under restorations anyway.

CERVICAL AREAS

Half of the evaluators reported it worked all the time after 2-3 applications, while another 15% found it worked all the time after only one application. The other 35% found it worked some of the time. One evaluator noted that patients noticed a difference only after the second application.

BEFORE BLEACHING

This was a mixed bag, with half of the evaluators reported it worked all the time, 17% some of the time, and 33% did not find it to be effective at all.

AFTER BLEACHING

Most (67%) evaluators reported it worked all the time, while the other 33% found it worked some of the time.

PACKAGING

The plastic shrink-wrapped kit comes in a conventional cardboard box with product identification on the top and three sides, with the expiration date on one side. The powder is in a typical small glass jar with a scoop leveler, while the liquid is in a conventional plastic squeeze bottle.

Virtually all evaluators thought the packaging was nice, neat, and organized with good access to the components. However, two evaluators felt keeping the contents aseptic left something to be desired.

DIRECTIONS

Annoying plain paper foldout design in three languages and nano-type. There is also a plastic-coated treatment room card. The paper instructions are somewhat redundant but fairly easy to follow. The treatment room card features color illustrations and easy-to-follow, step-by-step application procedures. It is well done. However, one evaluator felt the cleaning instructions could have been more detailed.

REALITY

STRENGTHS Once it is mixed, it is easy to apply and rinse. Effective most of the time. Mixture is easy to see and control since it is white and not runny. Chemistry is very biocompatible and biomimetic — no harsh chemicals, which can be especially important in patients with chemical sensitivities. Has slight positive effect on bond strength with etch & rinse adhesive. Minimal if any odor. No film thickness.

WEAKNESSES Doesn't always work. Dispensing and hand-mixing a powder-liquid material is a nuisance. Rinsing it off is an additional step. Packaging has asepsis challenges.

BOTTOM LINE

Although hand-mixing a powder-liquid product is definitely not as easy as dispensing a premixed, single-component liquid or gel, its common sense approach of recreating hydroxyapatite with the sophisticated chemistry that does not employ a controversial ingredient such as glutaraldehyde definitely has appeal and its effectiveness is impressive.

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