Here is what Opinion Leaders say:

Item# 170: Hemaseal & Cide 10 ml bottle

Item# 180: Hemaseal & Cide 50 X 0.1ml unit-dose bulbs

"I have used this desensitizer primarily for direct bonding procedures and for crown preparations. It works as well as the better-known brands like Gluma, and at a third of the price. This by far offers the most value and cost efficiency of all desensitizers on the market."

Brian Gray, DMD, Washington, DC

"I've used others, but with Hemaseal & Cide, I feel there's less soft tissue irritation, and I like that studies show improvement in the long-term bond. I opt for the unit dose, I use it in my education courses and show it in my lectures."

Bruce Crispin, DDS, MS Los Angeles, CA

"I am now everyday user of the Hemaseal & Cide; I was sold by the studies and articles on it. It seems like a logical step in my restorative routine."

Martin Goldstein, DDS, Wolcott, CT

"We have used Hemaseal & Cide here for years, because of the way it re-wets the etched dentin, to allow better adhesive penetration and improve bond strength. But the most compelling reason is that when we use it, we just don't see post-operative sensitivity. What's better than that?

Ross Nash, DDS, Huntersville, NC

"I use Hemaseal & Cide primarily for direct bonding procedures, and have had NO sensitivity nor other problems. The bulk bottle is easy-to-use, and I get the results thatl need. I can recommend it whole-heartedly."

Troy Schmedding, DDS, Walnut Creek, CA

"Hemaseal & Cide is a highly-effective agent in eliminating post-op sensitivity. In addition, it is extremely simple to use. Typically, Chlorhexidine enhances shear bond strength."

Karl Leinfelder, DDS, MS Chapel Hill, NC

"I like products that are easy-to-use, and better for the patient, like my old friend Hemaseal & Cide. In one bottle, it brings you a terrific antimicrobial desensitizing agent and a great cleansing agent. All this at a fraction of the cost of Gluma.
In short, you just might call Hemaseal & Cide the Under-Armor for under all your restorations, both composites and crowns, for ultimate protection."

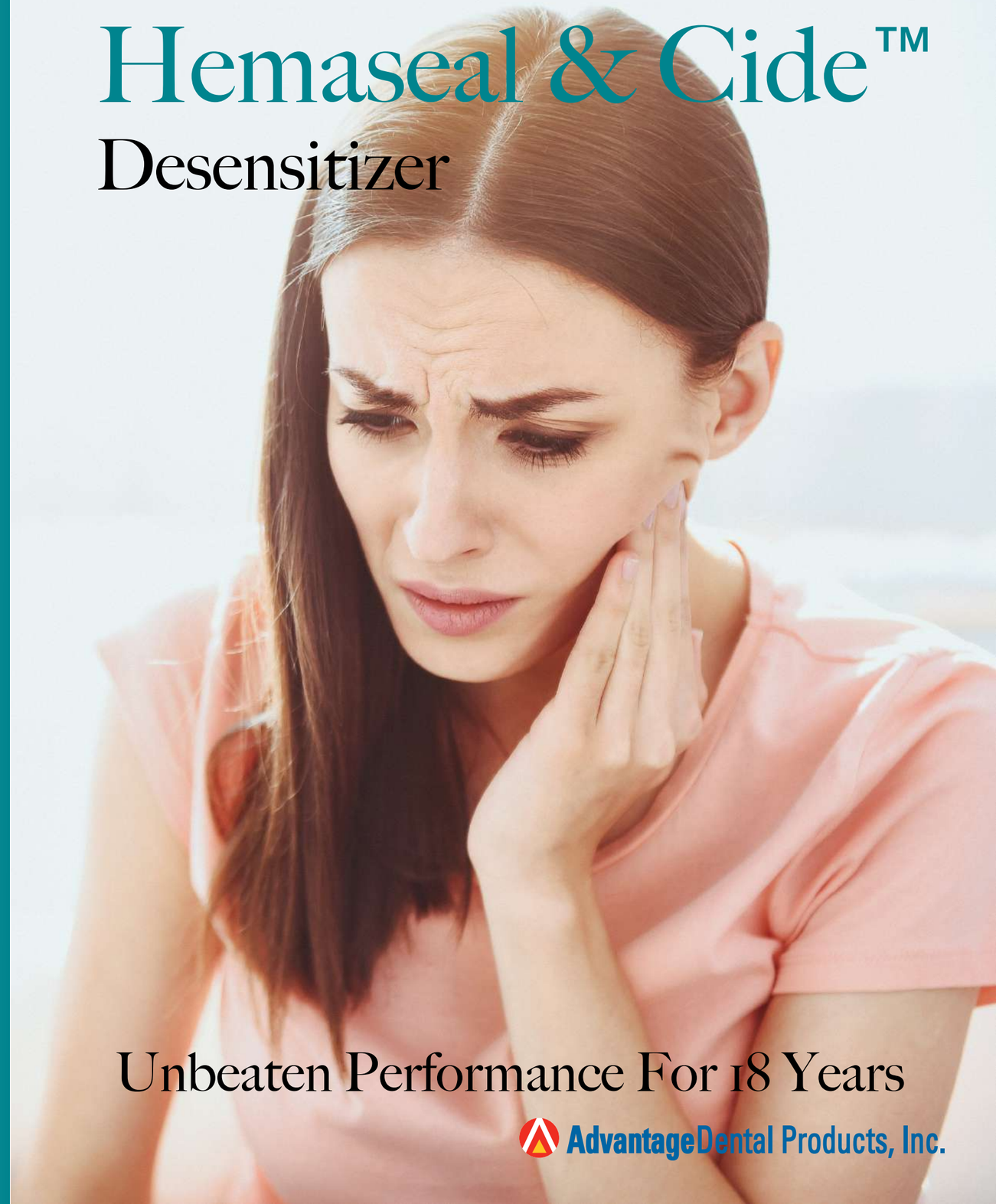
Howard S. Glazer, DDS, FAGD Ft Lee, NJ

AdvantageDental Products, Inc.
P.O. Box 415 Lake Orion, MI 48361
CALL: 800-388-6319
http://advantagedentalinc.com/index.html

Rev. 6/2019

Hemaseal & Cide™

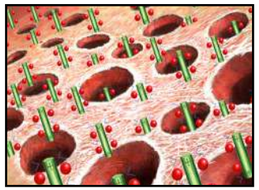
Desensitizer



Unbeaten Performance For 18 Years

AdvantageDental Products, Inc.

Why Desensitize with Chlorhexidine?



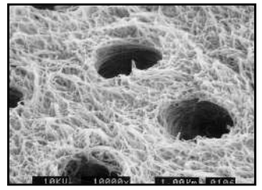
Why choose Hemaseal & Cide over Gluma® ?

- It's the TOP - rated antimicrobial in a 9-product study
- It was the ONLY product to improve bond strength with self-etch and total-etch products
- Chlorhexidine has been shown to prolong bond to dentin
- Total elimination of post-op sensitivity
- Unlike Gluma, it is soft-tissue friendly
- 1/3 the price of Gluma

Although adhesive techniques and chemistry have progressed remarkably in the 25 years since Total-Etch / moist bonding became popular, dentin is the same, and post-op sensitivity still happens, even with careful technique. The patient returns, you re-do the work, but the patient still complains to others.

- "When dentin tubules are opened, the adverse effects of cavity preparation- heat and hydration- reach the pulp more readily" .(Swift, E. 1997)
- "Micro-leakage is one of the main factors affecting the incidence of post-op sensitivity". (Felton, D. Cox, C., 1989)
- "If there is discontinuity in the coating of the walls by the bonding system or a micro-porous zone beneath the hybrid layer, hydrodynamic shift or bacterial toxin penetration into dentin tubules may occur." (Akpata, ES, et al 2001)
- "Auto-degradation of collagen matrices can occur in resin-infiltrated dentin, but may be prevented by the application of a synthetic protease."

4% Chlorhexidine is the major difference maker in this product. Chlorhexidine can lower the surface tension of water. It is a linear molecule with a dual-pole positive charge, and is attracted to the negatively charged tooth.



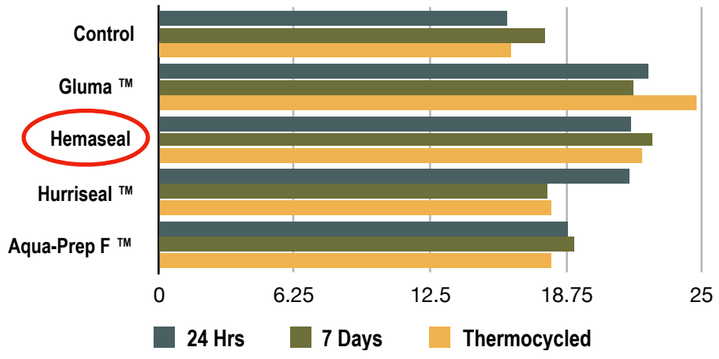
As one positive pole is drawn into a negatively charged tooth, the other positive pole is available to attach to the negative cell wall of the bacteria. As it infuses the bond surface it also brings HEMA and water with it. While this wetting or infusion of the bond zone provides the best anti-microbial activity, it also "puffs up" the collagen for better bonding or cementation. This collagen network, not the tubules, provides the bond strength.

The honeycomb network of dentinal tubules, that can only be seen by an electron microscope, is totally infused along with the collagen network. If any voids exist after bonding, a *pressure sensitivity* will exist, and it will not go away. Also, this surface must be totally disinfected. No product does this better than Hemaseal & Cide, by its ability to attract to the tooth and lower the surface tension of water.

Pashley, Tay, et al.*, determined that acid-etching reduced, but did not completely inhibit, the inherent collagenolytic activity of mineralized dentin, while the use of Chlorhexidine - even in very low concentrations - strongly inhibited such activity. Chlorhexidine also functions as a potent Matrix Metalloprotienases (MMP) inhibitor, according to Gendron, et al* resulting in the arrest of the in vivo degradation of the hybrid layers (Hebling, et al*).

Improved Bond Strength

Numerous studies have confirmed that Hemaseal & Cide improves dentin bond strength. * In fact, in a study 9 desensitizers, CRA reported that Hemaseal & Cide was the only product to improve bond strength of self-adhesive bonding systems.*

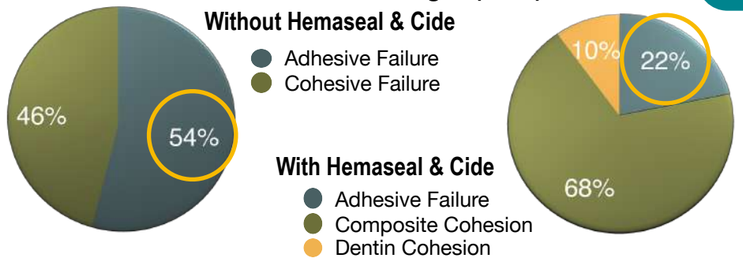


CONCLUSIONS: This test compares Hemaseal & Cide to a control: moist dentin, and also to other leading desensitizer. At seven days, Hemaseal & Cide had the highest bond strength at body temperature. Also, after severe thermo-cycling, Hemaseal & Cide was one of only two to show **higher** bond strength.

Effect of dentin desensitizers on bond strength on deep dentin. D. Li, K.L. O'Keefe, J.M. Powers. J Den Res. Vol.79, (Special Iss.A) Abstr. 2928, 2000

"The desensitizer with best combination of characteristics tested was the Chlorhexidine - based Hemaseal & Cide".

CRA Newsletter Vol.26, Issue 8



Improved Bond Strength

CONCLUSIONS: Not only did Hemaseal & Cide improve Tensile Bond Strength to surface dentin by 33%, but the difference in the **location** of failures is dramatic.
Application of HS&C reduced the percentage of adhesive failure from 54% to 22%; A REDUCTION OF 59%

Source: Report from Dr. J M Powers, Dept. of Restorative and Biomaterials. Univ. of Texas, Houston (1999)

Superior Anti-microbial

Under the direction of The Dental Advisor's scientific team. Hemaseal & Cide was compared to the two glutaraldehyde-containing products against two common problem microbes. Once exposed to the bacteria, each product established a zone of inhibition, which measures the ability of an antimicrobial agent to inhibit the growth of an organism: a larger zone of inhibition generally means that the antimicrobial is more potent.

CONCLUSIONS: Hemaseal & Cide was again proven to have superior antimicrobial potency; **roughly twice that** of GLUMA and Microprime G.

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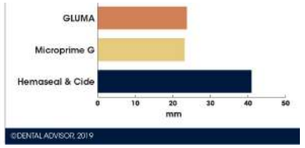
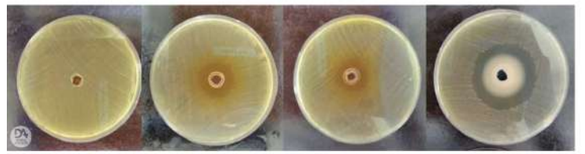


Avg. Zone of Inhibition for 3 tests against S. mutans.

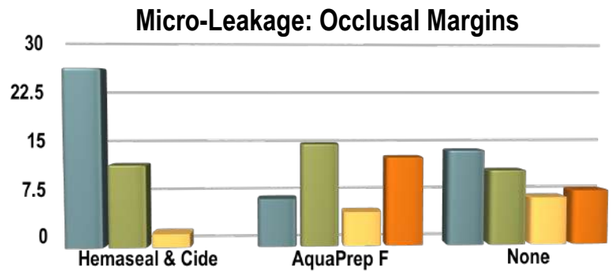
Avg. Zone of Inhibition for 3 tests against P. gingivalis

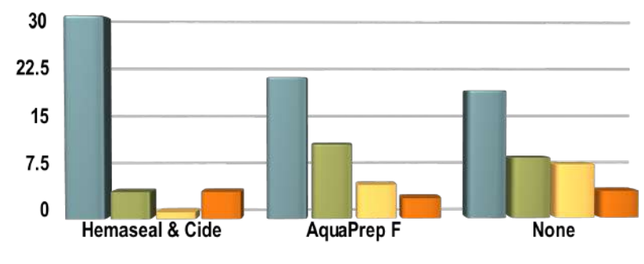


Post-incubation photo of agar plate inoculated with S. mutans per each treatment group.

Post-incubation photo of agar plate inoculated with P. gingivalis per each treatment group.

Reduced Micro-leakage





CONCLUSIONS: Hemaseal & Cide desensitizer de-creased the micro-leakage process at the enamel and dentin margins of inlay restorations luted with adhesive luting cement, while Aqua-Prep F increased the leakage scores at the enamel margins.

Influence of two desensitizer agents on the micro-leakage of adhesively luted ceramic inlays. Uzer Celik, E., et al, Eur J Dent 2011;5:77-83

* Studies available upon request.