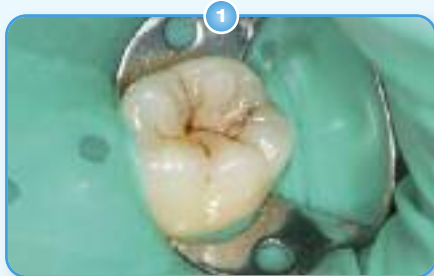


## Case Study I

Saying *Fusio Liquid Dentin* is quick and easy to use is an understatement. The following case illustrates the time saving benefits and outstanding esthetic results afforded by this new material.



Caries detected on tooth #19



Caries removed. Enamel roughened slightly past each groove.



*Fusio* B1 is applied, agitated, contoured with an explorer, and light cured.



Final restoration.

What doctors are saying about

## **Fusio™** Liquid Dentin

"*Fusio Liquid Dentin* is by far one of the best products available to dentists in the 21st century. After using the material on over a hundred restorations it is now one of those products I can't practice without!"

**Tony Soileau, DDS**  
Lafayette, LA



"I've been using *Fusio Liquid Dentin* as a base under my restorations. Just syringe it, agitate, and cure. It could not be simpler! And, when it comes to sealants nothing could be easier. It's the answer to squirming children."

**Marty Jablow, DMD, FAGD**  
Woodbridge, NJ



"*Fusio* is the first novel dental product in a decade! By taking advantage of modern self-etching adhesive technology, this 'liquid dentin replacement' eliminates the chance for post-operative sensitivity and cuts posterior composite placement time in half! Simply overlay with *Artiste Nano Composite* and you have a truly fast, simple and beautiful composite!"

**Jeff T. Blank, DMD, PA**  
Fort Mill, SC



## **Fusio™** Liquid Dentin

### Ordering Information

#### N21SA - *Fusio* Liquid Dentin A1

2 - 1ml/1.8gm Syringes, Instructions, Accessories and MSDS

#### N21SB - *Fusio* Liquid Dentin A2

2 - 1ml/1.8gm Syringes, Instructions, Accessories and MSDS

#### N21SC - *Fusio* Liquid Dentin A3

2 - 1ml/1.8gm Syringes, Instructions, Accessories and MSDS

#### N21SD - *Fusio* Liquid Dentin B1

2 - 1ml/1.8gm Syringes, Instructions, Accessories and MSDS

#### Accessories

N28NT - 50pk 19 Gauge Tips

N28NP - 100pk 19 Gauge Tips

#### Use *Protect-It® Composite Surface Sealant* for even better sealing results!

#### N10 - *Protect-It Composite Surface Sealant Kit*

1 - 7ml/7.5gm bottle *Protect-It Composite Surface Sealant*

1 - 3ml/4gm syringe 37% Etch gel

Instructions, Accessories, and MSDS

#### N10A - *Protect-It Composite Surface Sealant*

1 - 7ml/7.5gm bottle, Instructions and MSDS

For more information on our entire line of innovative dental products visit us at [www.pentron.com](http://www.pentron.com) or call us at 1.800.551.0283

### Credits

Radiograph courtesy of **Jeff T. Blank, DMD, PA.**

Case Study I photo series courtesy of **Tony Soileau, DDS**

Case Study II photo series courtesy of **Jeff T. Blank, DMD, PA.**

\*Flexural Strength data courtesy of **The Dental Advisor**

\*Vertical Shear Bond Strength data courtesy of **John Burgess, D.D.S., M.S.**

\*Microleakage data courtesy of **John Burgess, D.D.S., M.S. and Deniz Cakir, D.D.S., M.S.**

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## **Fusio™** Liquid Dentin



*A Fusion Of Composite &  
Adhesive Technology*

**Pentron  
Clinical**  
Technologies, LLC

# Introducing Fusio™ Liquid Dentin . . . the self-adhering flowable composite that tenaciously bonds to dentin & enamel without acid etching or a bonding agent!



Fusio™ Liquid Dentin represents the natural progression of composite resin technology that clinicians have been waiting for.

A self-adhering flowable composite, *Fusio* Liquid Dentin combines the benefits of adhesive and restorative technology into one product bringing restorative techniques to new unprecedented heights. Simply syringe into the preparation, agitate, and light-cure. Immediately upon application *Fusio* Liquid Dentin conditions, bonds, and seals without the need for an etchant or an adhesive. With such unique

applications as dentin replacement or self-adhesive base liner, *Fusio* Liquid Dentin will change the way you look at restorative dentistry. **Best of all *Fusio* Liquid Dentin costs less than premium flowable composites and their required separate adhesive.**

- > **Self-adhesive** – bonds to dentin and enamel without a separate bonding agent
- > **Versatile** – can be used alone or together with bonded composites
- > **Seals dentin** – offers the potential for reduced sensitivity
- > **Increases profitability** – improves procedure efficiency by reducing the time, steps, & materials needed
- > **Radiopaque** – easily stands out on x-rays for quick and easy diagnosis
- > **Esthetic** – available in four of the most popular Vita® shades: A1, A2, A3, & B1

## The evolution of composite technology



*Fusio* Liquid Dentin is formulated for easy detection on x-rays.

**Fusio™ Liquid Dentin** is a 4-META (4-methacryloxyethyl trimellitic acid) based flowable composite featuring nano-sized amorphous silica and glass fillers. *Fusio* Liquid Dentin's unique formula is both acidic (low pH value) and hydrophilic. Upon contact with the tooth surface, the negatively charged carboxylic acid groups of the methacrylate monomers bond to the mineral ions in the tooth structure. As the carboxylic acid groups are neutralized and the monomers polymerized they become incorporated into the dentin surface enhancing both dentin bonding and sealing ability.

## The duct tape of restorative dentistry!

The self-adhesive properties of **Fusio Liquid Dentin** make it an indispensable material in any dental operator. Below is just a small sample of the many indications for this new product.

- > **Self-Adhesive base liner under higher viscosity restorative materials**
- > **Restoration of small Class I cavities**
- > **Blocking out undercuts**
- > **Pit and fissure sealant**

## Case Study II

*The self-adhesive technology utilized in Fusio Liquid Dentin opens up a world of new possibilities in dentistry.* In the following case, *Fusio* Liquid Dentin is used to replace dentin in a Class I restoration.



1 Syringe 1mm increment and agitate with needle tip for 20 seconds. Light cure for 10 seconds.



2 Syringe additional material as needed in 2mm increments. Light cure each additional increment for 10 seconds.



3 Total etch the enamel, any dentin that may have not been covered, and the *Fusio* Liquid Dentin. Apply a bonding agent and cure.



4 Apply and contour *Artiste* enamel shade composite. Light cure for 20 seconds.

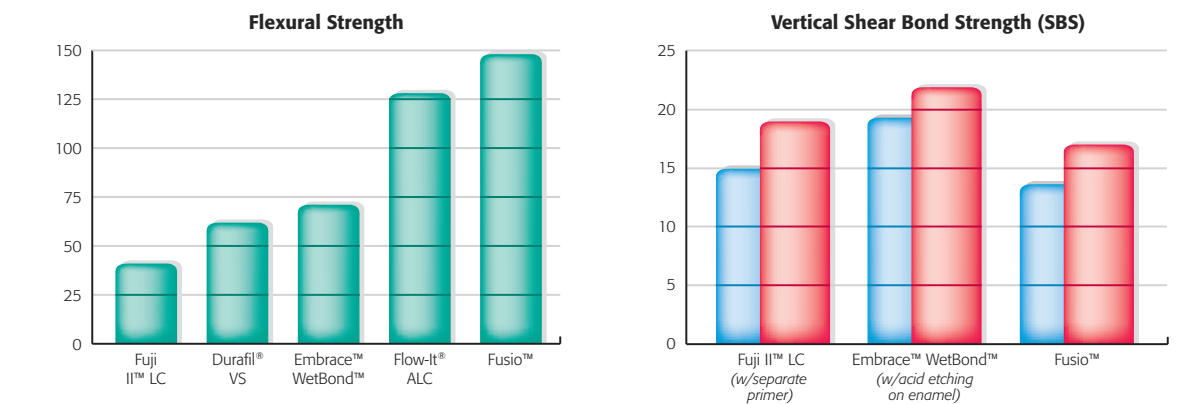


5 Final restoration.

By using **Fusio Liquid Dentin** together with **Artiste® Nano Composite** and **Bond-1® Primer/Adhesive**, you get the best of both worlds – a self-adhesive composite covering and sealing all of the dentin to reduce the potential for sensitivity and total etch chemistry for optimum adhesion to enamel.

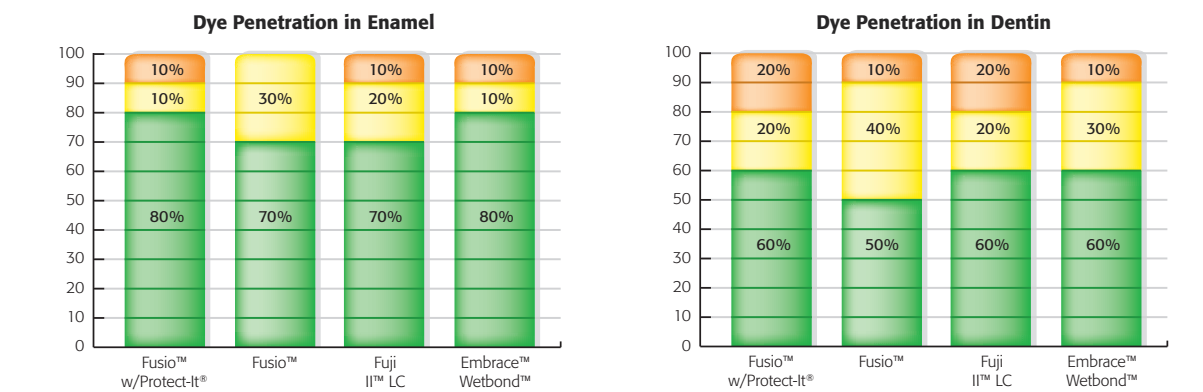
## Independent validation!\*

Extensive independent testing has validated the efficacy of *Fusio* Liquid Dentin for its indicated applications. As the following test results prove, *Fusio* Liquid Dentin possesses the perfect combination of self-adhesion and physical properties enabling clinicians to restore teeth quickly, easily, and confidently.



*Fusio* Liquid Dentin possesses the ideal flexural properties enabling it to withstand the demanding forces of the mouth.

*Fusio* Liquid Dentin achieves high bond strengths without a separate etching, priming, or bonding step.



Degree of dye penetration data were analyzed with Kruskal-Wallis non-parametric test. The microleakage results show that *Fusio* Liquid Dentin produces equivalent results to other commonly used materials but with less procedural steps. For even better results use **Protect-It® Composite Surface Sealant**.