# Why waste time with incremental layering?

Instead, you can place Filtek<sup>™</sup> Bulk Fill Posterior Restorative in one layer up to 5 mm deep. You're about to learn why.



One 4 mm placement of Filtek<sup>™</sup> Bulk Fill Posterior Restorative puts less stress on the tooth than two separate increments of many universal composites.



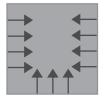
Filtek<sup>™</sup> Bulk Fill Posterior Restorative

# Shrinkage, stress ... and bulk fill restoratives

**Shrinkage** is easy to measure and easy to understand. Polymerization shrinkage is the change in volume of your composite that occurs as you cure it. The composite shrinks as all the freely moving resin molecules go through the free-radical methacrylate polymerization reaction.



**Stress** is a little harder to visualize, and a little harder to measure. Stress is the amount of force that is exerted on the tooth because of polymerization shrinkage. Stress is what can break the adhesive bond, crack enamel, and allow leakage at the margins.



## The amount of stress is based on a number of factors

It's not just the amount of shrinkage. Both the shrinkage of the material and the stiffness of the material come into play. (Li 2007)

- A sealant, for example, can have very high shrinkage (over 5%!) and place very low stress on the tooth. (Kleverlaan 2005)
- A universal restorative might have 2% shrinkage, but because it is much stiffer, it will place much higher stress on the tooth. (Kleverlaan 2005)

### So what enables a dental composite to be placed in bulk?

There are recent advances in chemistry that allow us to control polymerization stress.

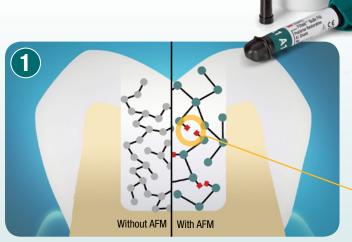


### Filtek Bulk Fill Posterior Restorative uses **2 new resin components** to reduce polymerization stress.

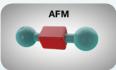
To learn how it works, read on ...



# Filtek<sup>™</sup> Bulk Fill Posterior Restorative

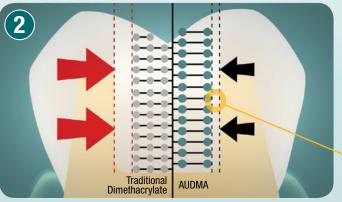


# Here's how it works.



The innovative component of the FIRST resin is an addition-fragmentation monomer (AFM). The unique feature

of this resin is that during polymerization, the central group **can fragment to relieve stress**. The fragments can then re-polymerize in a lower stress state.



# AUDMA

The other new resin component is Aromatic Urethane Dimethacrylate (AUDMA). Because it's a larger

monomer than found in traditional dimethacrylates, it limits the number of shrinkage zones. That helps reduce the amount of shrinkage and stress that occur during polymerization.

### **Ordering Information**

#### Filtek™ Bulk Fill Posterior Restorative

Item #	Product Information
4864TK	Filtek <sup>™</sup> Bulk Fill Posterior Restorative Capsule Procedure Kit Kit includes: 40 – 0.2g capsules: 20 each of A2 and A3; 5.0ml vial Scotchbond <sup>™</sup> Universal Adhesive; Instructions for Use; 10 – Sof-Lex <sup>™</sup> Spiral Finishing Wheels; 10 – Sof-Lex <sup>™</sup> Spiral Polishing Wheels; 1 – RA Mandrel; Technique Guide; Instructions for Use
4863TK	Filtek <sup>™</sup> Bulk Fill Posterior Restorative Syringe Procedure Kit Kit includes: 2 – 4g syringes: 1 each of A2 and A3; 5.0ml vial Scotchbond <sup>™</sup> Universal Adhesive; Instructions for Use; 10 – Sof-Lex <sup>™</sup> Spiral Finishing Wheels; 10 – Sof-Lex <sup>™</sup> Spiral Polishing Wheels; 1 – RA Mandrel; Technique Guide; Instructions for Use

Refill	Item #	Item #	
SHADE	SYRINGE	CAPSULE	
A1	4863A1	4864A1	
A2	4863A2	4864A2	
A3	4863A3	4864A3	
B1	4863B1	4864B1	
C2	4863C2	4864C2	

 $\label{eq:synamics} \mbox{SYRINGE SHADE REFILLS} include 1-4g \mbox{ syringe; Technique Guide;} \\ \mbox{Instructions for Use.}$ 

**CAPSULE SHADE REFILLS** include 20 - 0.2g capsules; Technique Guide; Instructions for Use.

Customer Care Center: 1-800-634-2249 www.3MESPE.com/FiltekBulkFillPosterior



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