

Issue 13

# CaulkTalk

DENTSPLY  
CAULK

A NEWSLETTER TO PROMOTE BETTER DENTISTRY



## How to be efficient without compromise during restorations.

There are many steps in completing a successful restoration. But how do you protect your business, as well as your patients' results? Is there a way to be efficient without clinical compromise? [Read more](#)

### How's your cavity adaptation?



From technique to the type of flowable used, see how to achieve the best cavity adaptation results.

[Watch Video](#)

### Flowable Composite Resins CE Course

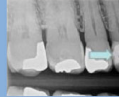


Take advantage of this two-credit CE course and learn how to decrease microleakage and shrinkage stress in composite restorations.

[Take CE Course](#)

### Caulk Talk: Ask Dr. Janyavula

**Q.** Should I be concerned about the integrity of this restoration?



**Q.** How should I treat this tooth?



**Q.** I like condensing my composite; how do I get adequate matrix band and cavity adaptation with a flowable like Surefil® SDR® flow?

[See Answers](#)

Have your own question? Tweet us @DENTSPLYCaulk

### Upcoming and Past Topics

#### Upcoming Topics

CaulkTalk: Composites  
CaulkTalk: Light Curing

#### Bonus Video: DDS Uncensored

Dr. Poss talks about his experience with new Aquasil Ultra Cordless from DENTSPLY Caulk.

#### Past Topics

The Evolution of the Etch  
Keys to Class II Success

#### New Webinar

Tips for Minimizing Errors in Crown and Bridge Impressions

Enjoy self-leveling, bulk fill efficiency without the compromise. [Get Free Sample](#)





## The Benefits of Bulk Fill, Adaptation, and Radiopacity

with DENTSPLY Caulk's SureFil® SDR® flow

By: Jason H. Goodchild, DMD



Figure 1: Note the poor cavity adaptation of the composite resin restorations on teeth #30-DO and #31-MO. These recently placed restorations appear to have a void between the restorative material and the cavity margins, which can easily be interpreted as recurrent decay.

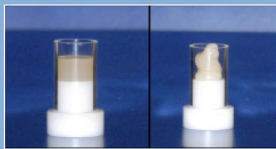


Figure 2: Comparison of SureFil® SDR® flow (left) and Esthet-X® flow (right) after extrusion from the syringe. Note how the SureFil® SDR® flow fills up the cylinder and self-levels. No agitation of the material was done to improve flowability.



Figure 3: Post-operative radiograph of RCT #4 and composite core build-up. The high radiopacity of SureFil® SDR® flow matches that of TPH Spectra® Universal Composite to provide great visualization of the final restoration.

It has been written that, "the highest type of efficiency is that which can utilize existing material to the best advantage."<sup>1</sup> In dentistry, this is especially true when undertaking direct composite resin restorations. Today's practitioner must effectively complete all of the required operative steps to mitigate the chance for premature composite resin failure. In addition, these steps must also be completed with relative quickness to contend with issues such as practice overhead and insurance reimbursement. Efficiency in dental practice should therefore be considered as not only the ability of the operator to work quickly, but also competently. Dr. Ron Jackson recently commented, "Given today's overhead per hour, dentists need material and technology advancements so that posterior composites can be placed faster, easier, and profitably without taking compromising shortcuts."<sup>2</sup>

Historically, dentists spend a considerable amount of time during the composite resin procedure placing material in small increments followed by light curing. With the introduction of bulk fill composite materials, it is now possible to reduce procedural steps because greater increments of material can be used. SureFil® SDR® flow was the first low-stress, bulk fill flowable composite resin to be introduced that allows practitioners to place up to 4mm of material per increment without negative sequelae from polymerization shrinkage (e.g., sensitivity, debonding, cuspal deflection).

Another important benefit of SureFil® SDR® flow is its ability to completely adapt to the irregular anatomy of cavity preparations. If the restorative material is unable to take on the shape of the cavity preparation, unfilled areas or voids can occur. (Figure 1) Clinicians often seek lower viscosity materials to aid in cavity adaptation, however not all flowable composite resins are truly "flowable." Sometimes the ability to express the material out of a cannula qualifies these resins as flowable, however they may not flow into irregular cavity forms without additional agitation. SureFil® SDR® flow is unique because its low viscosity allows the material to flow into small areas without agitation. And the material is self-leveling. So, even when using SureFil® SDR® flow in maxillary teeth or when placement is against the force of gravity, the material will adapt to the cavity dimensions, self-level and not slump or run. Figure 2 shows the flowability of SureFil® SDR® flow versus a less viscous flowable.

Practitioners will enjoy the benefits of reduced placement time when using SureFil® SDR® flow. On follow-up radiographic exams, they will also appreciate the excellent cavity adaptation and radiopacity. Some early flowable composite resin products had radiopacities less than enamel, and when placed as liners in deep cavity preparations appeared as a void or recurrent decay on radiographs. Because SureFil® SDR® flow has a radiopacity greater than enamel and dentin, clinicians will easily be able to visualize the restoration and differentiate it from surrounding structures. (Figure 3)

To learn more about how SureFil® SDR® flow can increase the chairside efficiency and effectiveness of your posterior composite restorations, visit [www.SureFilSDRflow.com](http://www.SureFilSDRflow.com) or call 1-800-LD-Caulk.

#### References:

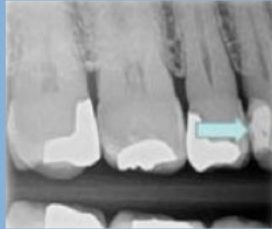
1. Jawaharlal Nehru. (Indian Prime Minister. 1889-1964)
2. Jackson RD. Placing posterior composites: increasing efficiency. Dent Today 2011; 30(4):126,128,130-1.



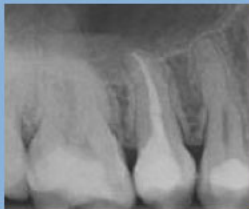
## Ask Dr. Janyavula

Dr. Janyavula takes on a few questions on restorations.

**Q.** Should I be concerned about the integrity of this restoration?



**A.** Radiopacity of materials is important – you want radiopacity greater than natural dentin and enamel. The lack of similarity between radiopacities in the photo above can lead to misinterpretation of the integrity of the restoration. In the photo below, the high radiopacity of SureFil® SDR® flow matches that of TPH Spectra® Universal Composite to provide great visualization of the final restoration.



**Q.** How should I treat this tooth?



**A.** You have a wide prep that finishes at the gingival margin. An advanced sectional Matrix System like Palodent® Plus allows you to isolate due to the ring design and the extension of the matrix band subgingivally. Upon successful isolation, I would utilize the selective-etch technique with a universal bonding agent like Prime&Bond Elect®. In this technique, you can bond to the available enamel best by etching it, and still avoid sensitivity by utilizing a self-etch technique on the dentin. Because the prep is irregular after the amalgam removal has been completed, the flowability and self-leveling of SureFil® SDR® flow provides great adaptation to the internal walls of the cavity prep.

**Q.** I like condensing my composite; how can I be sure I get adequate matrix band and cavity adaptation with a flowable like SureFil® SDR® flow?

**A.** The key to achieving excellent adaptation with SureFil® SDR® flow is to allow it to self-level for a few seconds. Avoid the urge to manipulate the material with an instrument, as manipulation of any flowable may increase the likelihood of voids. By allowing the material to self-level on its own, it will seek out the irregularities in the preparation and provide excellent adaptation.