



# omniCHROMA *Flow* BULK

One-Shade Bulk Fill Composite



# omniCHROMA *Flow* BULK

- OMNICHROMA® *Flow* BULK is a low viscosity, light-cured, radiopaque composite resin for use in anterior and posterior restorations and is indicated for all carious classes. OMNICHROMA *Flow* BULK is a single shade material. Direct placement of OMNICHROMA *Flow* BULK into a prepared cavity allows for easy handling.
- OMNICHROMA *Flow* BULK is a flowable material which can be placed in 3.5mm increments .
- OMNICHROMA *Flow* BULK is available in SYRINGE.

## BENEFITS TO CLINICIANS

- ✓ Increased efficiency – saving time and money
- ✓ Simplified inventory management
- ✓ Reduction of composite waste
- ✓ Never run low on composite shades ever again



# OMNICHROMA *Flow* BULK

## Features & Indications

### OUTSTANDING FEATURES:

- Excellent esthetic properties
  - Unprecedented color matching
  - High polishability
  - High stain resistance
- Excellent physical-mechanical properties
  - Low polymerization shrinkage among flowable type bulk fill resin composite
  - Applicable for bulk filling

### INDICATIONS:

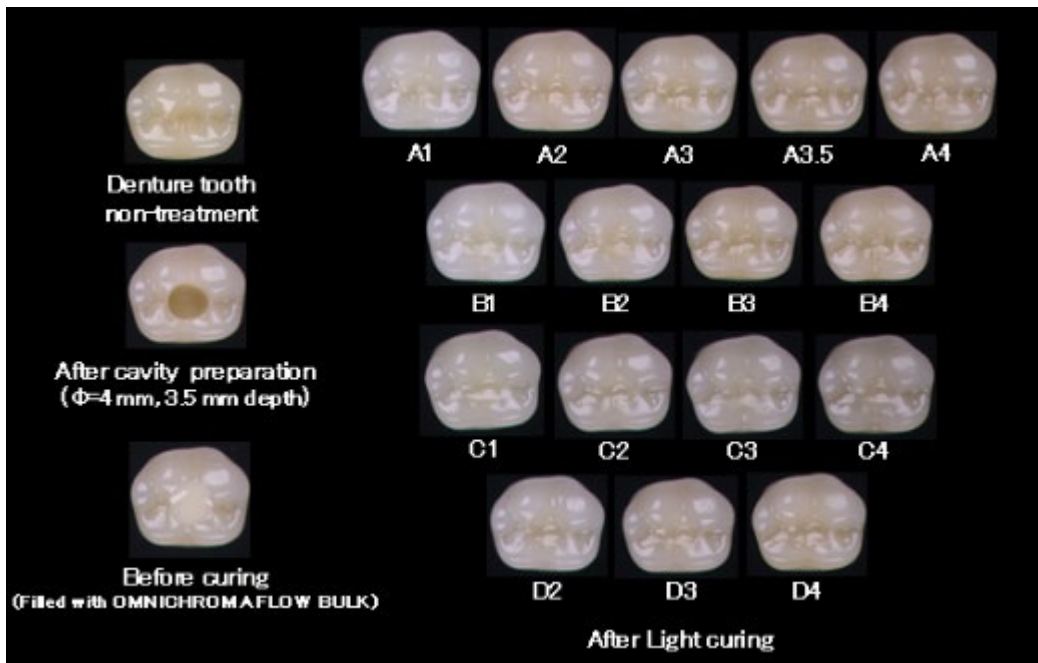
- Direct anterior and posterior restorations
- Cavity base or liner
- Blocking out cavity undercuts before fabricating indirect restorations
- Repair of porcelain/composite



# OMNICHROMA *Flow* BULK

## Unprecedented Color Matching

OMNICHROMA *Flow* BULK was developed based on SMART CHROMATIC TECHNOLOGY enabling it to match the 16 Vita classical shades with one shade of composite.



### COMPETITORS



**SureFil SDR Flow +**  
(Dentsply Sirona)

Universal, A1, A2, A3  
\* Requires capping layer



**Filtek Bulk Fill Flowable**  
(3M)

Universal, A1, A2, A3,



**Tetric Power Flow**  
(Ivoclar Vivadent)

IVA  
\* Requires capping layer

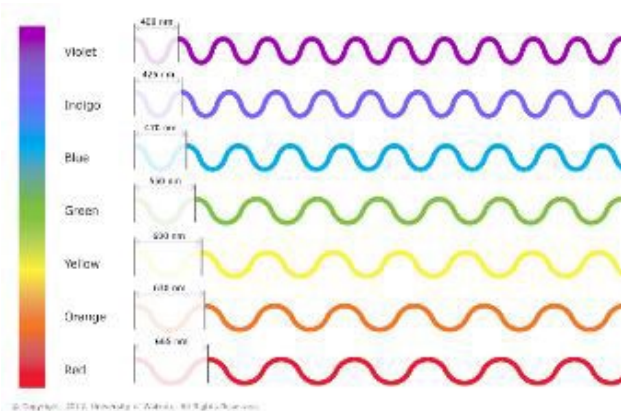
Unlike its competitors, OMNICHROMA *Flow* BULK enables one shade of composite to match any color of tooth without a capping layer.



# OMNICHROMA *Flow* BULK Unprecedented Color Matching

- **Color is nothing more than wavelengths of light that reach our eyes.**

White light contains all wavelengths of color - from violet, which is the shortest, to red, the longest, these wavelengths make up the visible spectrum of color that we can see.



- **There are 2 color producing phenomena.**

Chemical Color & Structural Color



## Chemical Color

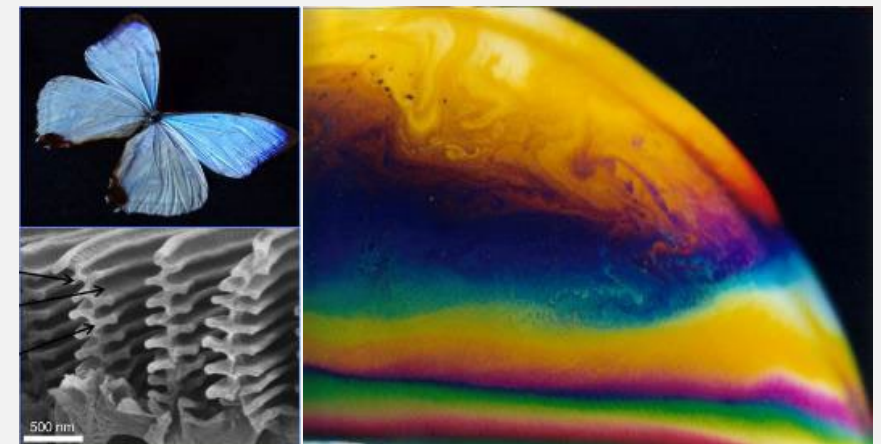
The most common form of color visible to us and happens when molecules of a material reflect particular wavelengths.



Typical composites today rely on the chemical color of added dyes and pigments.

## Structural Color

A phenomenon in which the structure of a material amplifies or weakens different wavelengths to create a certain color.



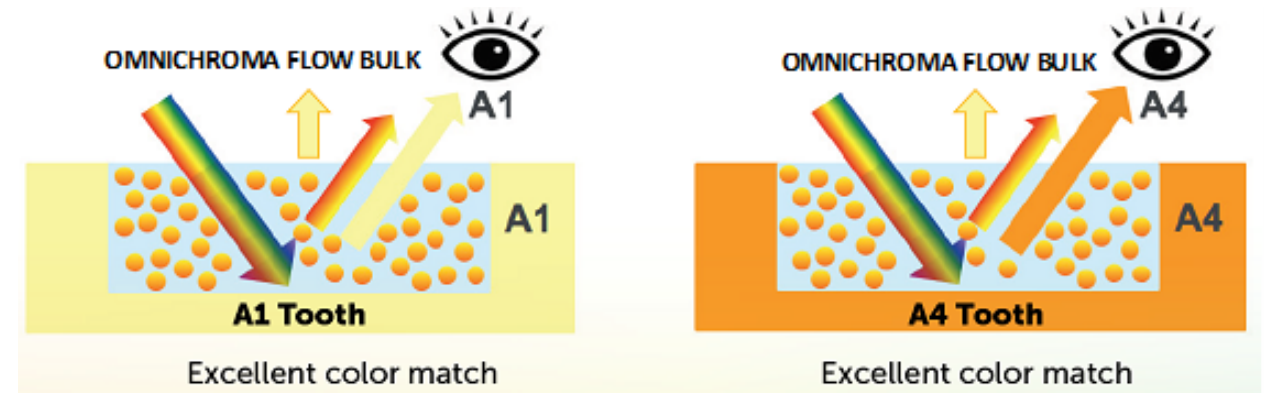
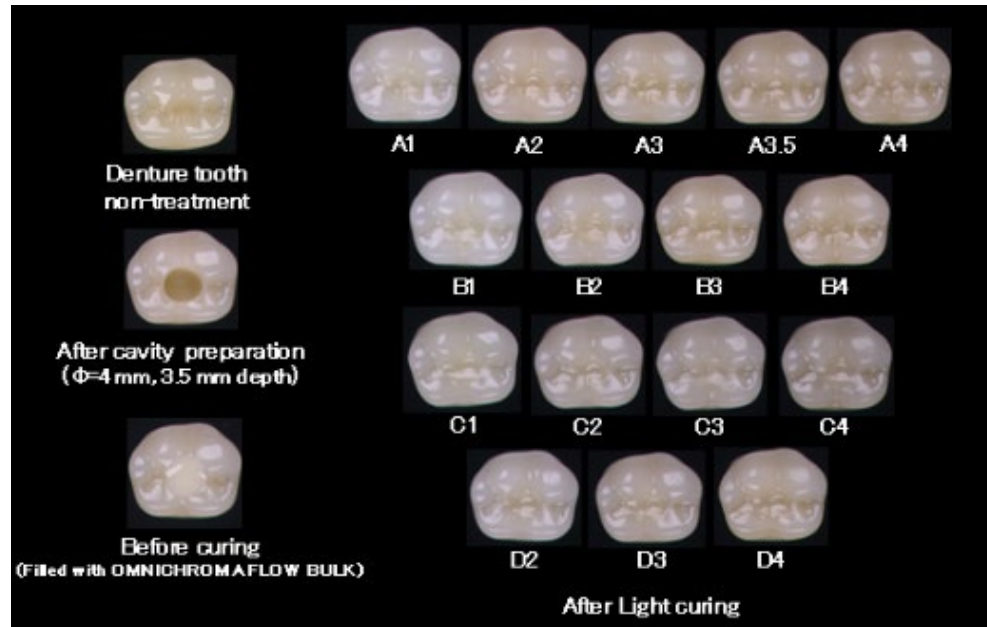


# OMNICHROMA *Flow* BULK

## Unprecedented Color Matching

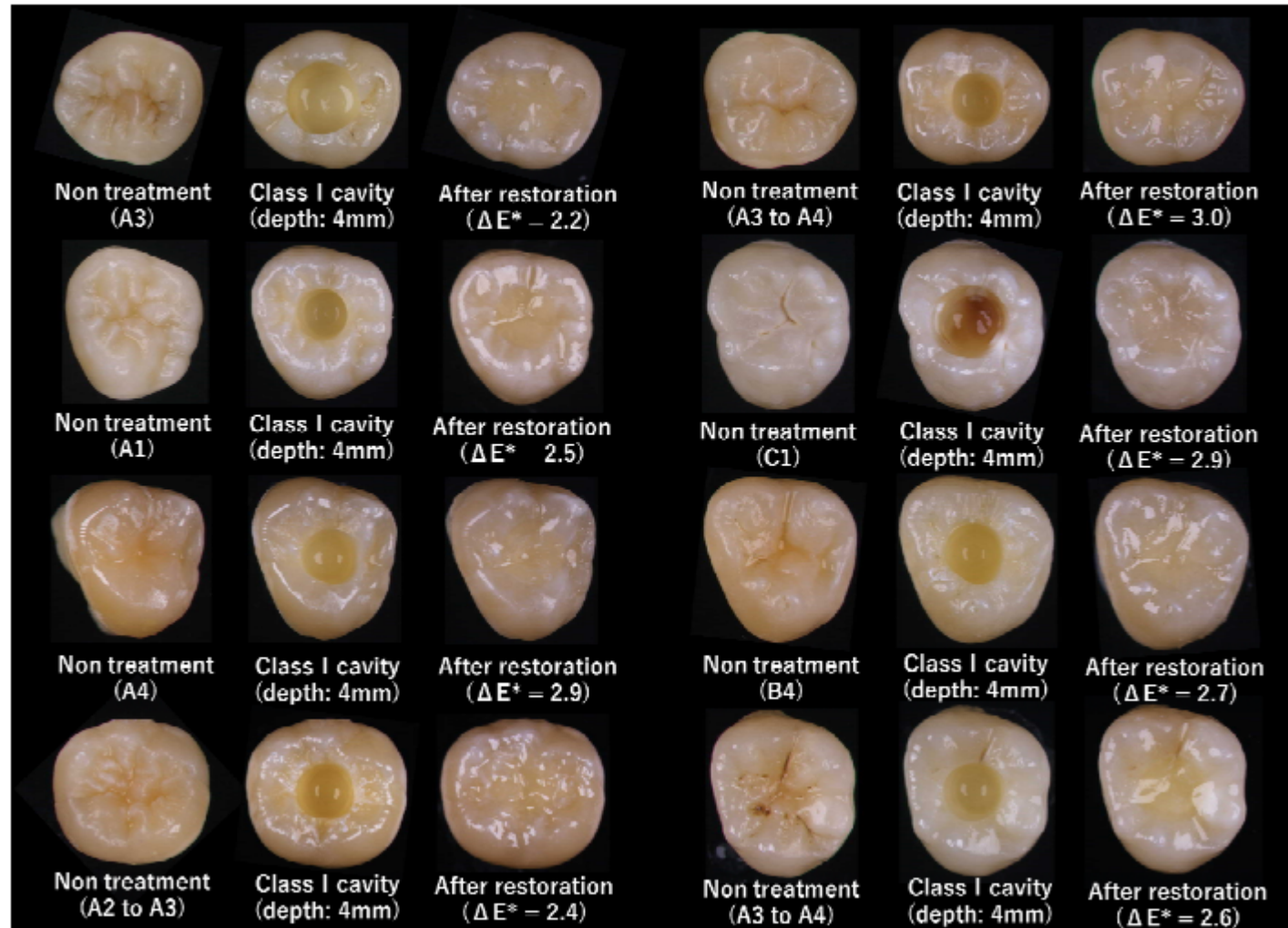
OMNICHROMA products are the first composites to utilize SMART CHROMATIC TECHNOLOGY, which...

- Leverages structural color as the main color mechanism
- Does not have added dyes or pigments
- The fillers generate color reflecting the shade of the surrounding tooth

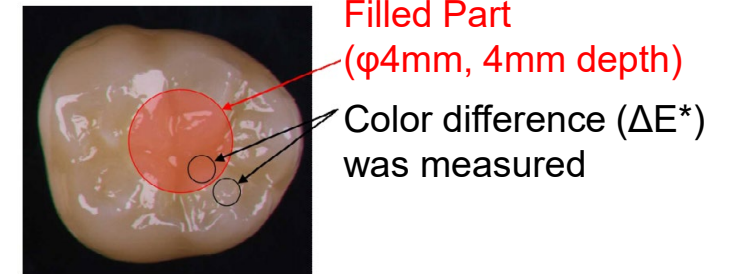




# OMNICHROMA *Flow* BULK Unprecedented Color Matching



Evaluation of color adaptation to extracted human molars



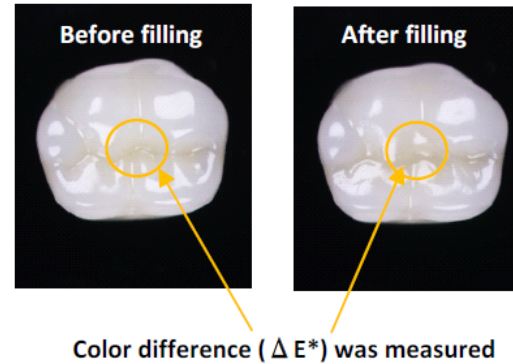
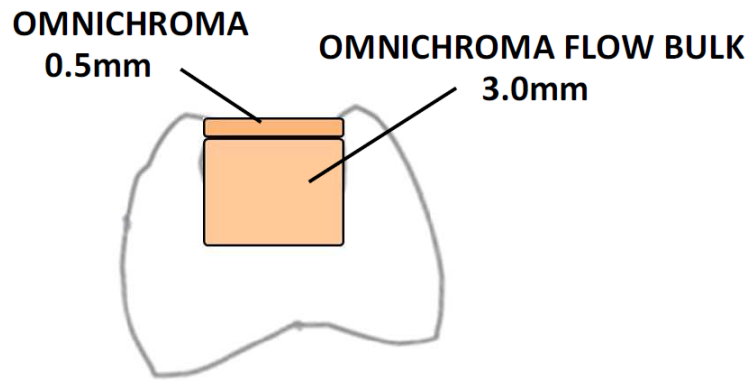
$\Delta E^*$  for all eight teeth is below 3.3 which is an acceptable color match.

By visual evaluation, OMNICHROMA *Flow* BULK shows natural looking color adaptation to all shades of the extracted teeth in bulk filled Class I restorations.



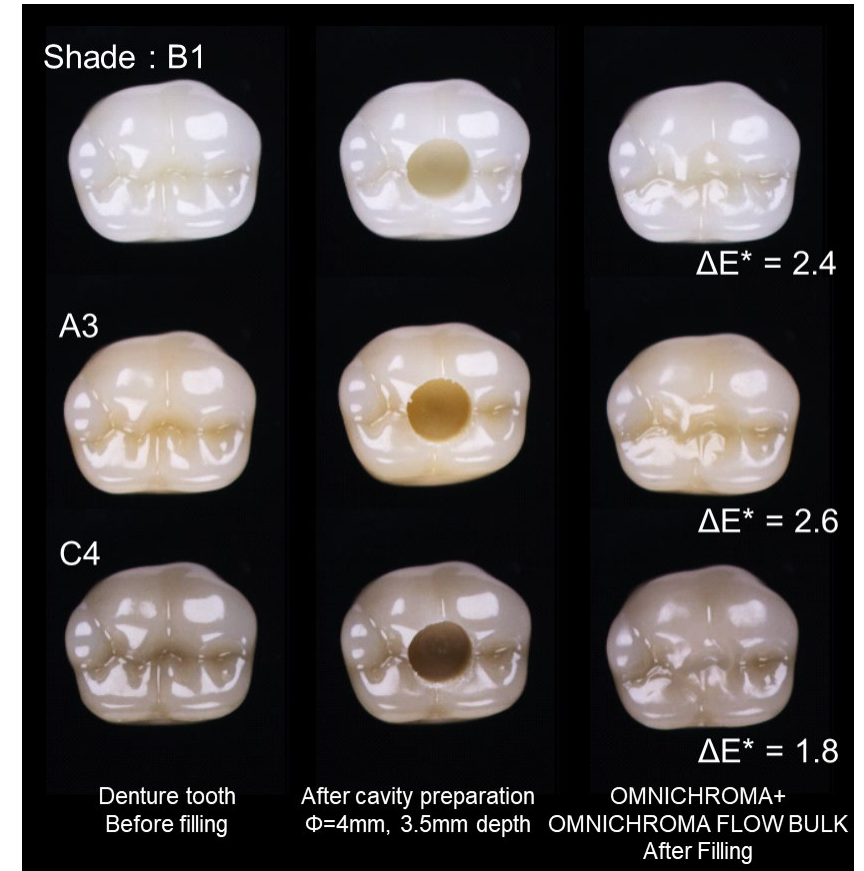
# OMNICHROMA *Flow* BULK Unprecedented Color Matching

The flowability of OMNICHROMA *Flow* BULK is high. If you are concerned about creating the tooth anatomy, please apply OMNICHROMA after filling with OMNICHROMA *Flow* BULK.



Color difference ( $\Delta E^*$ ) of the filled part between before and after was evaluated.  
 $\Delta E^*$  for all three shades is below 3.3 which is an acceptable color match.

Additionally, natural looking color adaptation for all three shades is visibly confirmed in the Class I restorations combining OMNICHROMA *Flow* BULK with OMNICHROMA.







# OMNICHROMA *Flow* BULK Components

SMART CHROMATIC TECHNOLOGY made possible thanks to Tokuyama's unique Spherical Filler Technology.

## Filler

Uniform sized supra-nano spherical filler

(260nm SiO<sub>2</sub>-ZrO<sub>2</sub>)

Round shaped composite filler

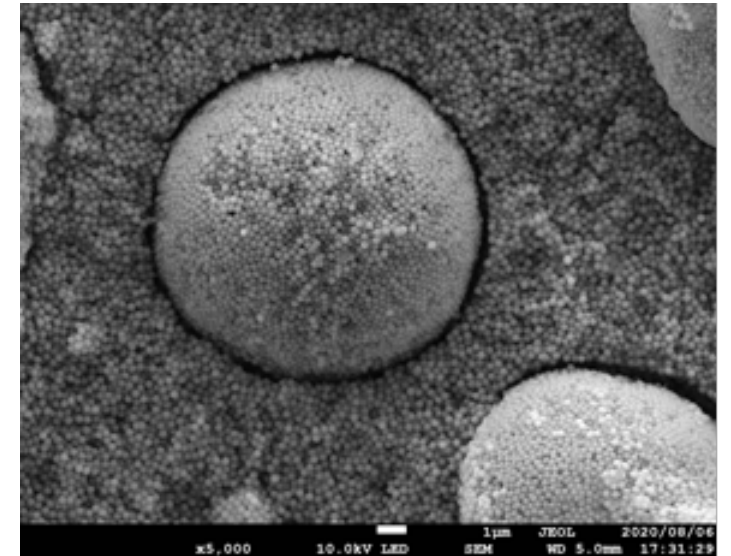
(including 260nm spherical SiO<sub>2</sub>-ZrO<sub>2</sub>)

## Monomers

UDMA/1,9-Nonanediol Dimethacrylate

## Filler loading

69wt% (55vol%)



SEM image of the filler in OMNICHROMA *Flow* BULK (Magnified x5,000)

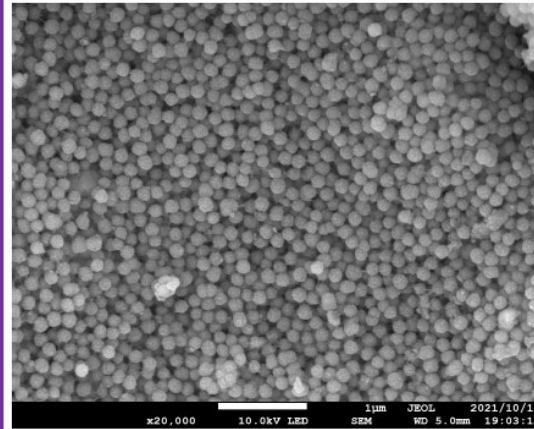


# OMNICHROMA *Flow* BULK Comparison of Filler Materials

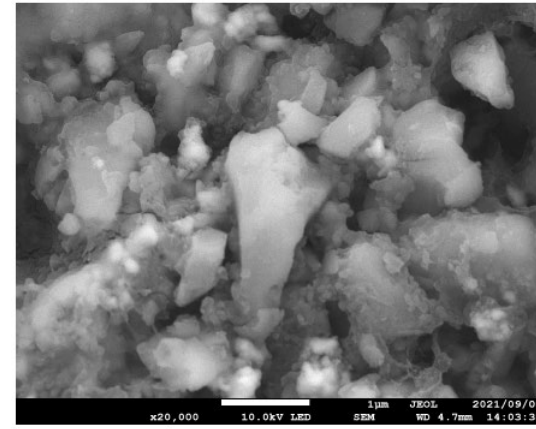
SEM image of the filler used in resin composite (20,000x magnification)



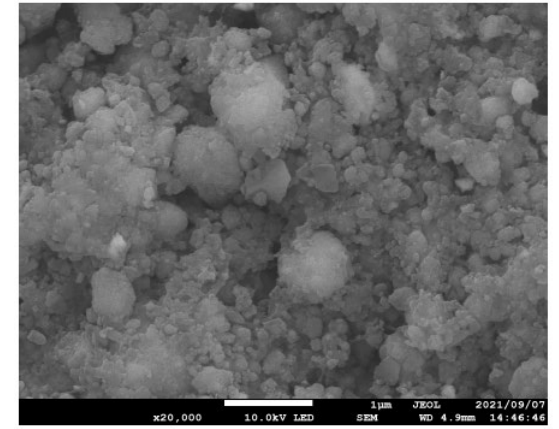
OMNICHROMA® FLOW BULK  
(OMNICHROMA® Filler)



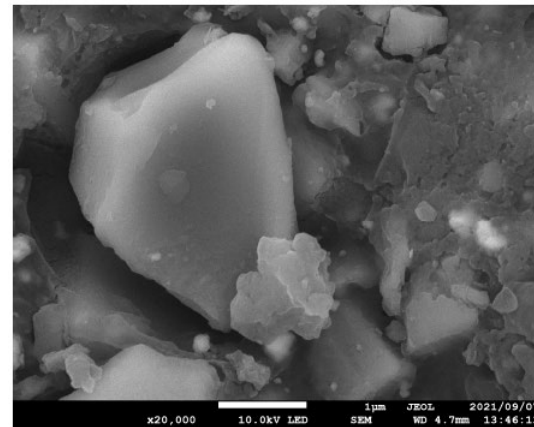
Estelite Bulk Fill Flow



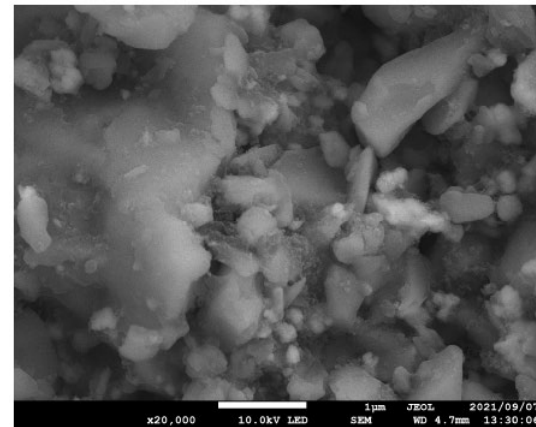
SureFill SDR flow+



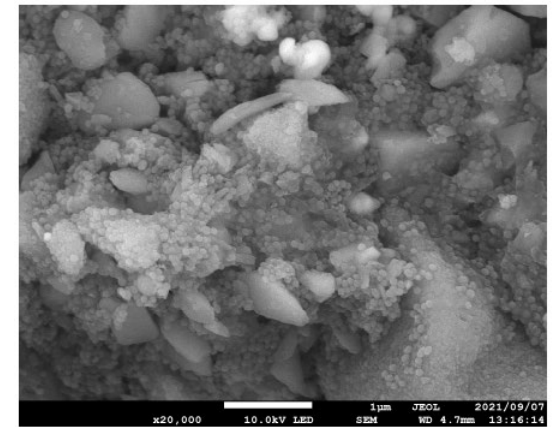
Filtek Bulk Fill Flowable



Tetric Power Flow



bulk EZ

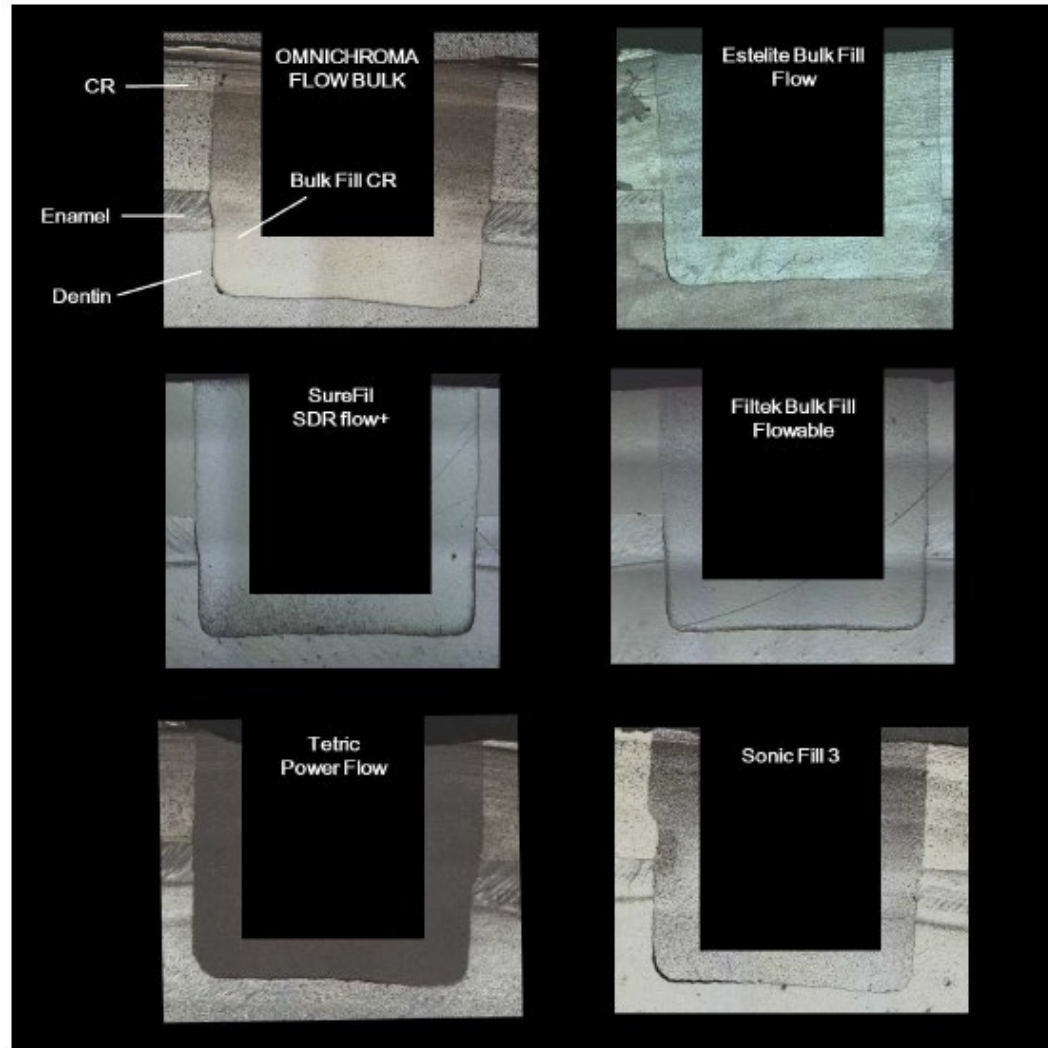


Sonic Fill 3

OMNICHROMA *Flow* BULK contains uniformly sized 260nm spherical filler (OMNICHROMA Filler) to exhibit red to yellow structural color



# OMNICHROMA *Flow* BULK Cavity Adaptation



Typical laser microscope images of each cavity adaptation

Cavity adaptation of each bulk fill resin composite to a cylindrical cavity with a cavity size of 4 mm diameter and 4 mm depth was examined.

Bovine teeth were used for this evaluation.

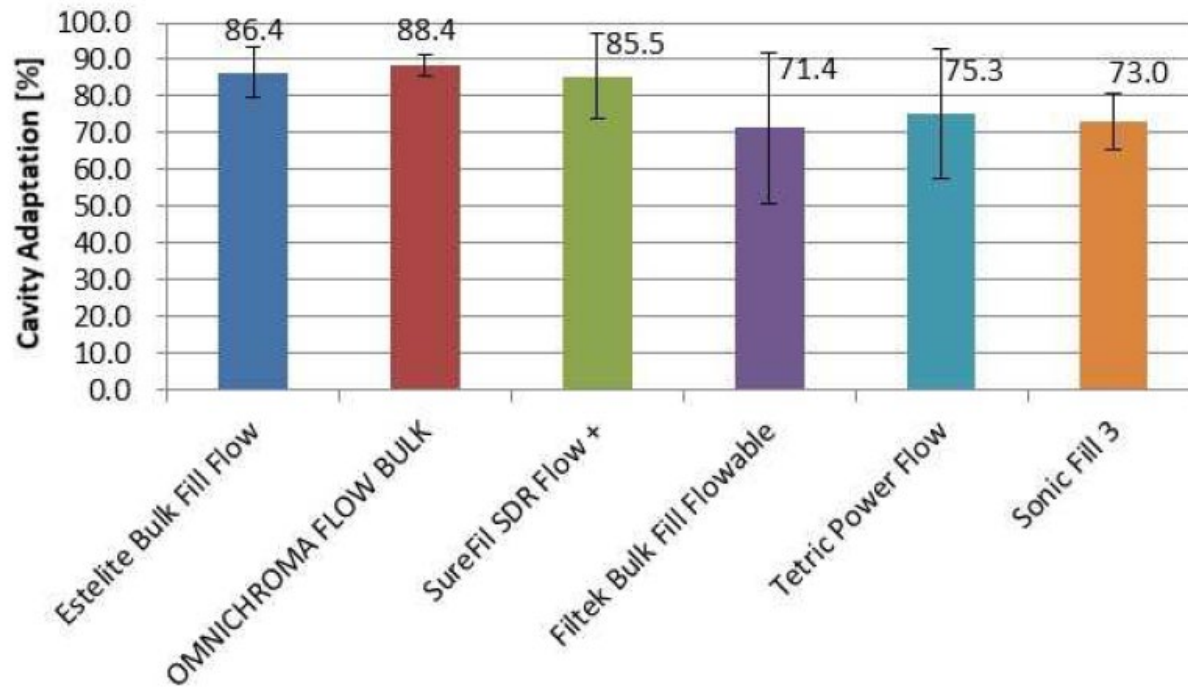
Because cavity depth was short, 2mm layer of resin composite was filled on the lingual surface of the bovine premolar, then 4mm depth of the cylindrical cavity was prepared.



# OMNICHROMA *Flow* BULK Cavity Adaptation

The cavity adaptation of Estelite® Bulk Fill *Flow*, OMNICHROMA *Flow* BULK and SDR® flow+ were more than 85.5%.

**Cavity adaptation of each bulk fill resin composite**

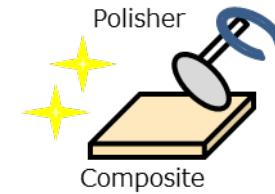
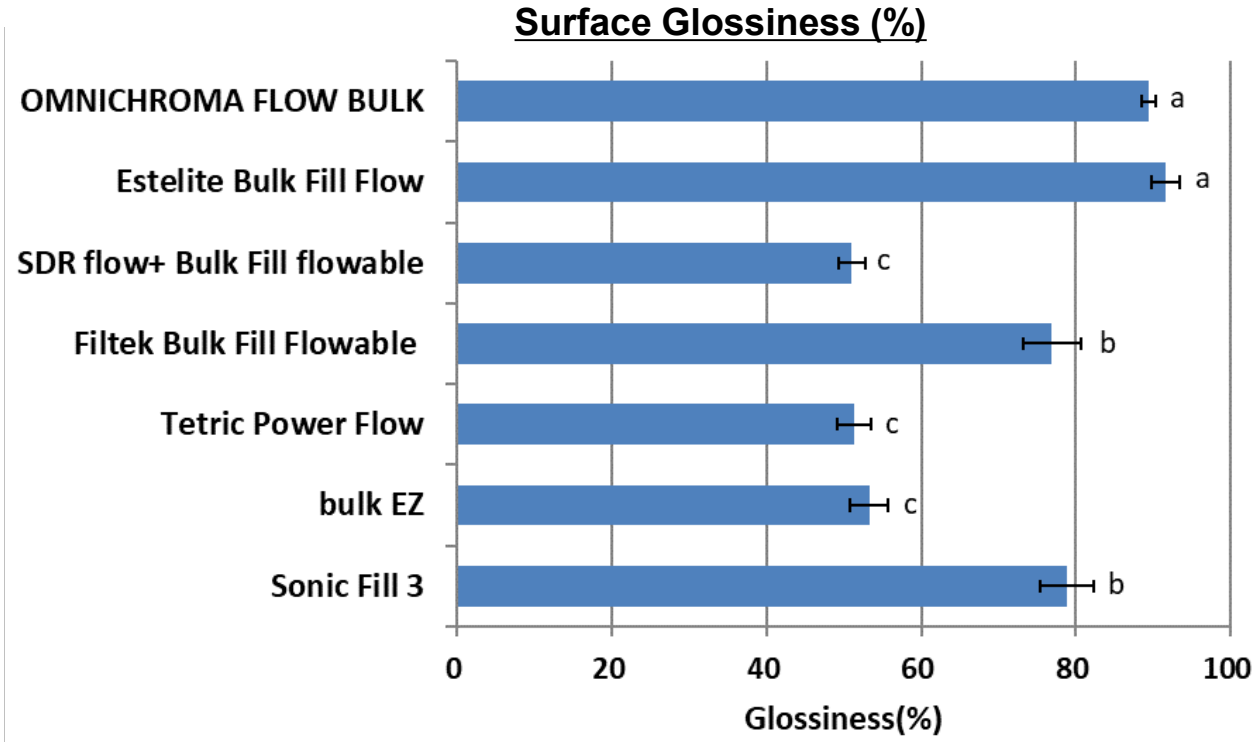


Cavity adaptation was evaluated by calculating the bonding ratio (non-gap forming ratio) to total bonding length within the bovine teeth part.



# OMNICHROMA *Flow* BULK Polishability

The results show that glossiness of OMNICHROMA *Flow* BULK and Estelite Bulk Fill *Flow* after polishing were significantly higher than that of other bulk fill resin composites evaluated in this study, showing easy and fast polishability.



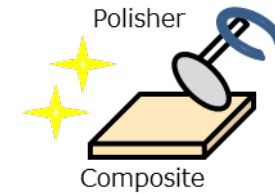
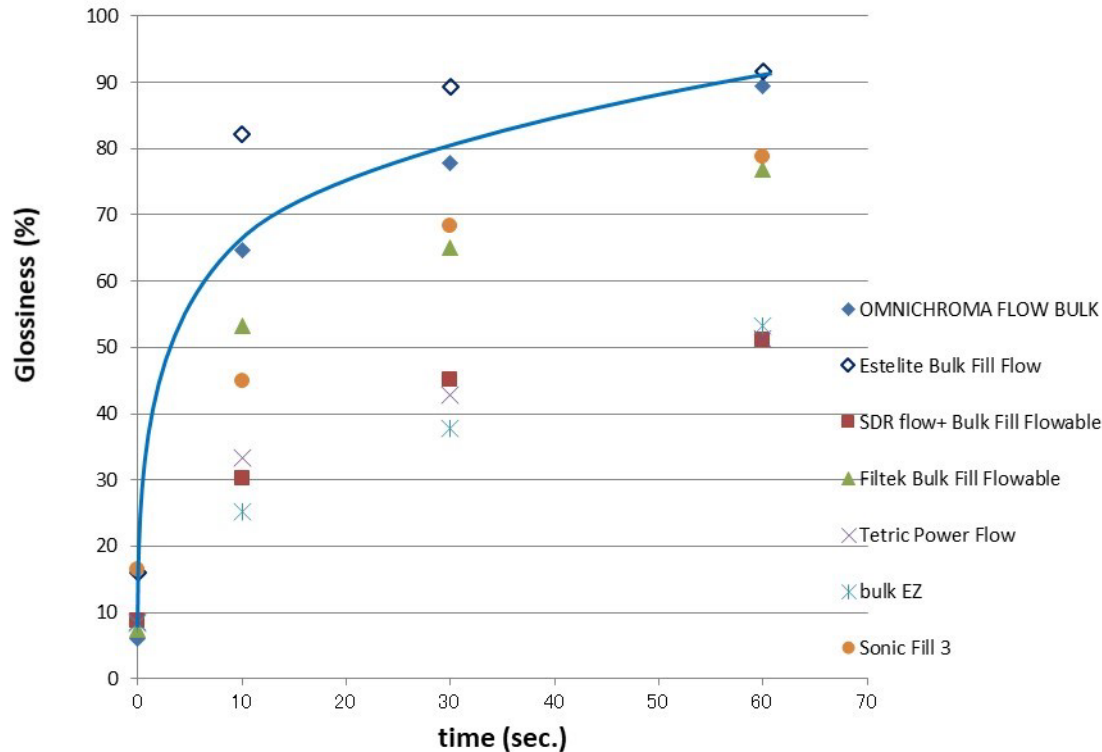
Polishing test using Sof-Lex™ superfine discs (3M-ESPE) for 60 seconds under running water.



# OMNICHROMA *Flow* BULK Polishability

The results show that OMNICHROMA *Flow* BULK has the second highest glossiness at each evaluation time compared with other bulk fill resin composites evaluated in this study.

**Relationship of surface glossiness and polishing time**

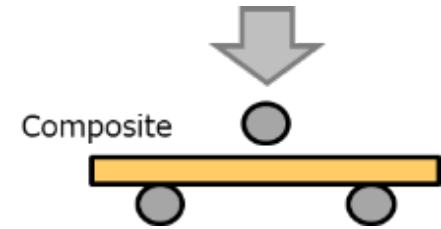


Polishing test using Sof-Lex™ superfine discs (3M-ESPE)



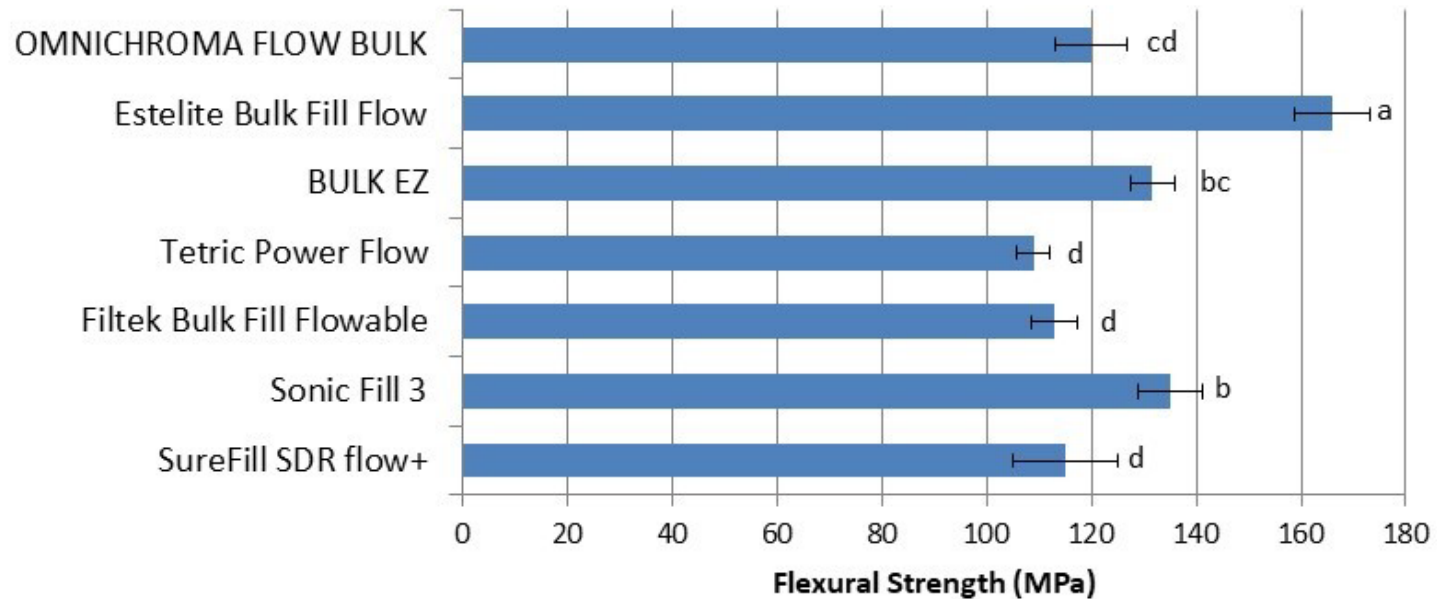
# OMNICHROMA *Flow* BULK Strength

The flexural strength of OMNICHROMA *Flow* BULK showed no significant difference compared with SDR® flow+, Filtek Bulk Fill Flowable, Tetric® Power Flow and BULK EZ in this study.



\* in accordance with ISO4049

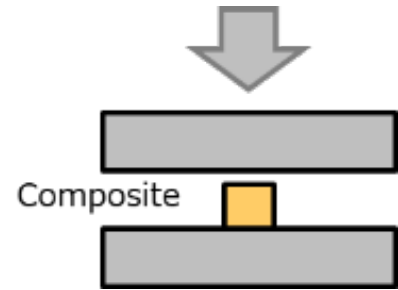
Flexural Strength (MPa)





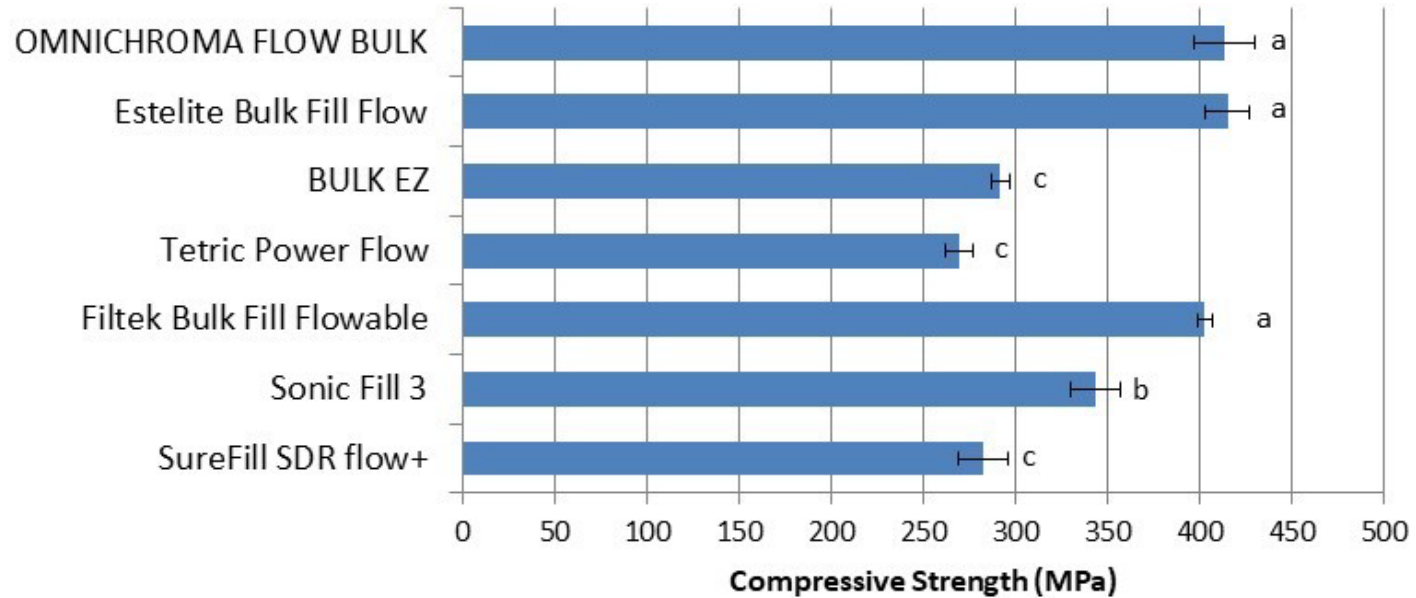
# OMNICHROMA *Flow* BULK Strength

The compressive strength of OMNICHROMA *Flow* BULK is the highest among commercially available bulk fill resin composites in this study.



\* in accordance with ISO4049

Compressive Strength (MPa)



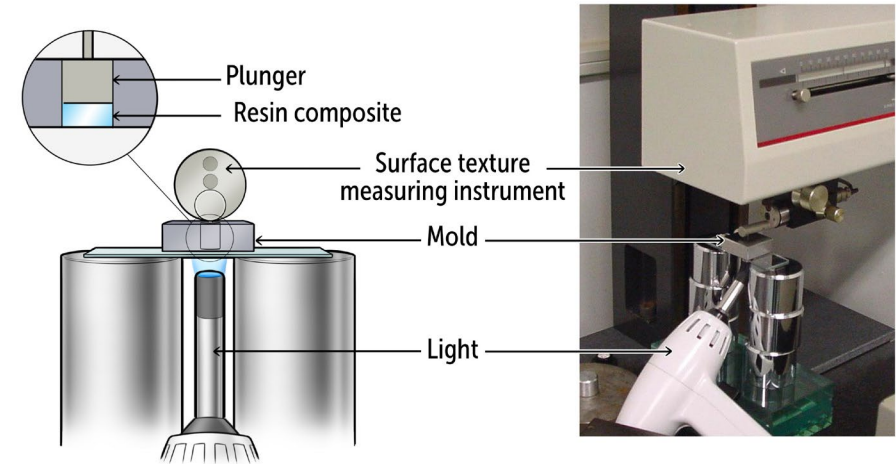
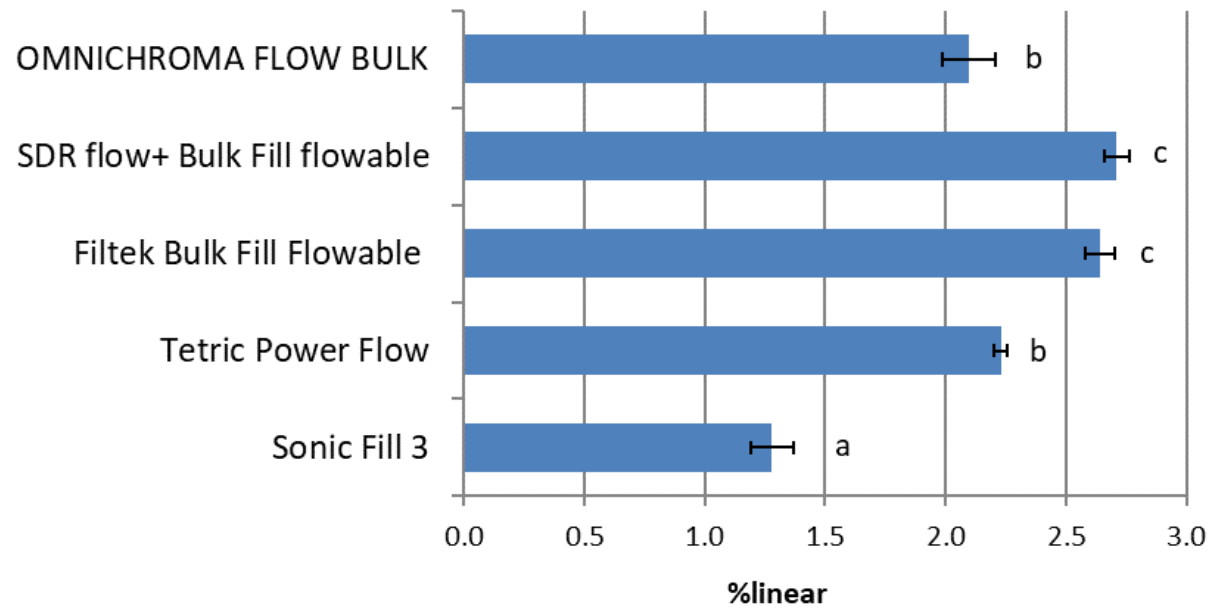




# OMNICHROMA *Flow* BULK Polymerization Shrinkage (%linear)

The linear polymerization shrinkage of OMNICHROMA *Flow* BULK showed no significant difference compared with Tetric Power Flow and significantly lower shrinkage than that of SDR flow+ and Filtek Bulk Fill Flowable in this study.

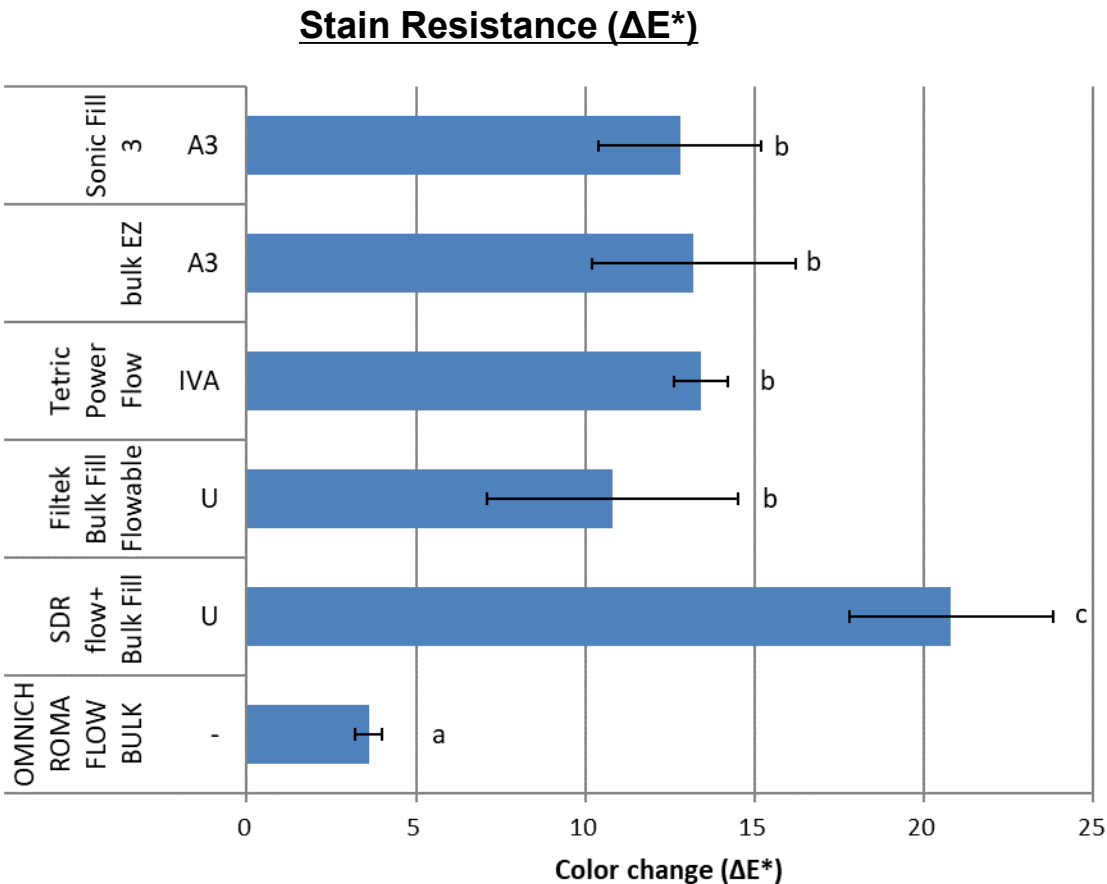
## Polymerization Shrinkage (%linear)





# OMNICHROMA *Flow* BULK Staining Resistance

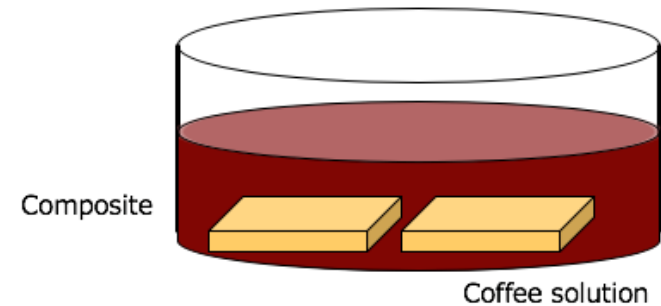
The extent of staining for OMNICHROMA *Flow* BULK after soaking in coffee was the lowest among commercially available bulk fill resin composites in this study.



## Coffee staining test

Composites were immersed in coffee (24 hours at 80°C).

Color change ( $\Delta E^*$ ) between before and after was measured.





# OMNICHROMA *Flow* BULK

## Increment Depth

OMNICHROMA *Flow* BULK enables a 3.5mm increment depth by light-curing for 20 seconds with Halogen or LED light-curing unit (light intensity: 800mW/cm<sup>2</sup> or more, wavelength: 400-500nm).

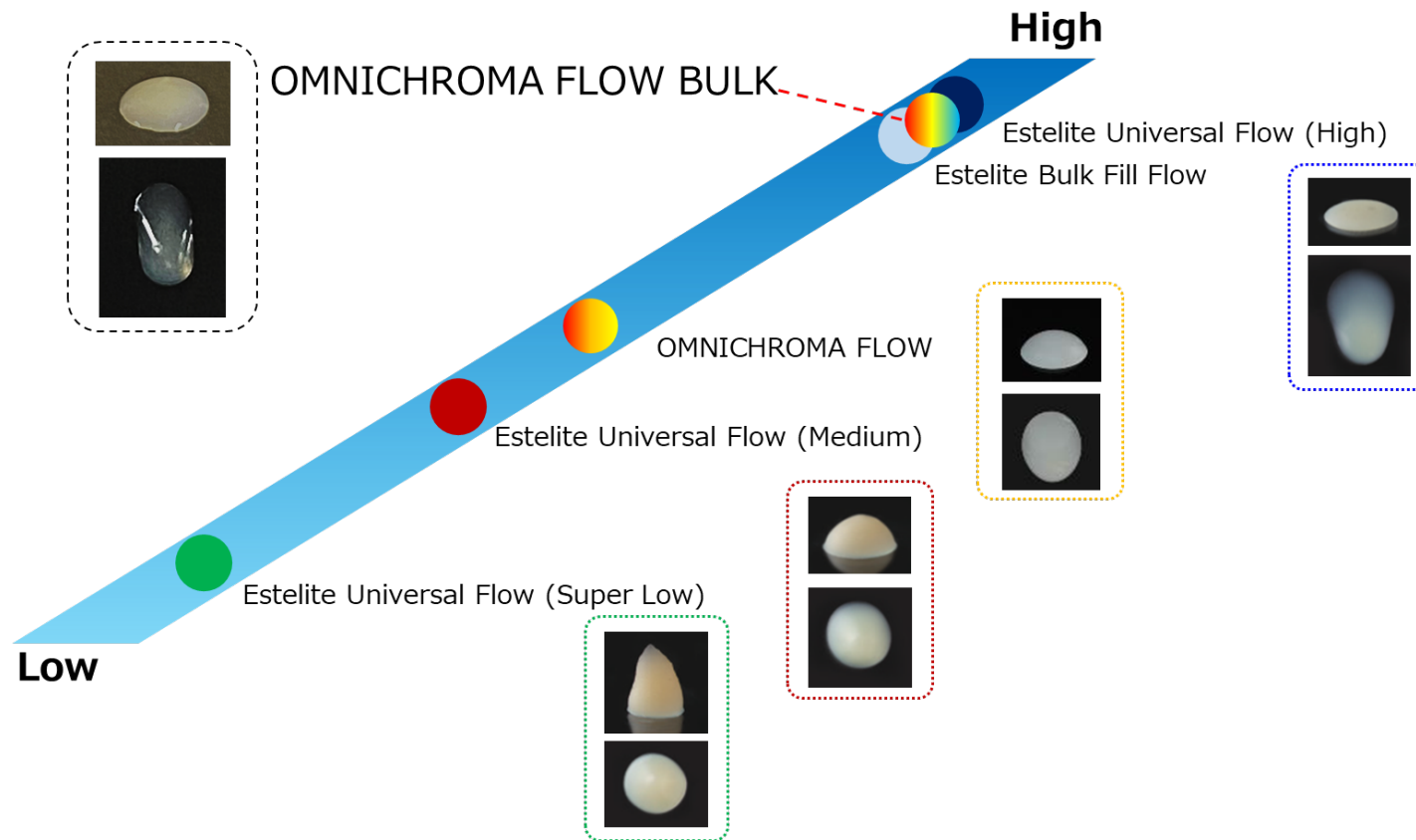
### Relationship between light intensity, curing time and increment depth of OMNICHROMA *Flow* BULK

Light type	Intensity (mW/cm <sup>2</sup> )	Curing time (seconds)	Increment depth (mm)
Halogen	600	30	3.7
	800	20	3.6
		30	4.1
LED	800	20	3.5
		30	3.9
	900	20	3.5
		30	4.0
	1000	20	3.6
		30	4.1
	1200	20	3.7
		30	4.2



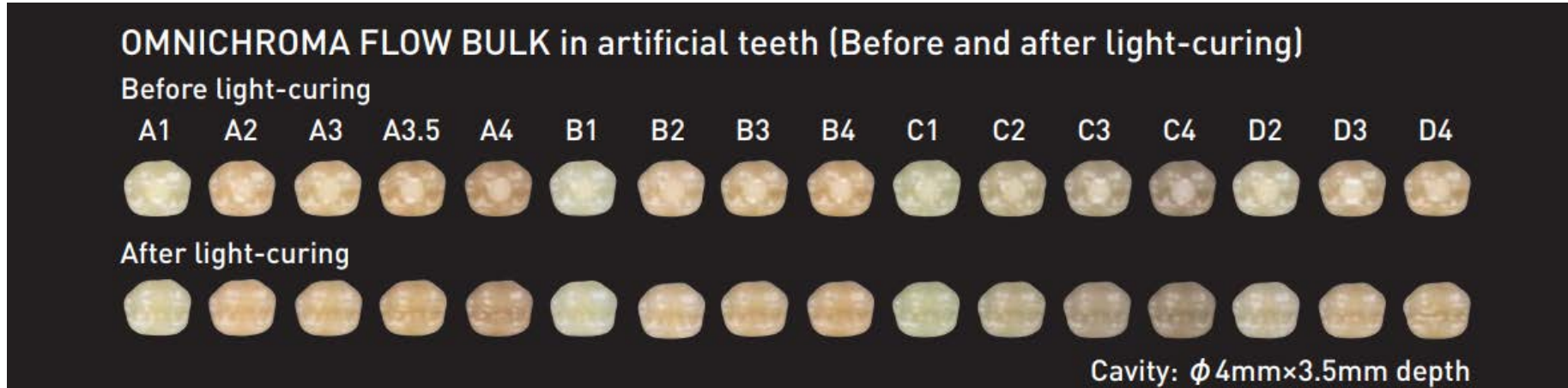
# OMNICHROMA *Flow* BULK Viscosity

OMNICHROMA *Flow* BULK is categorized in high flow type showing low viscosity and high flowability making it easy for bulk filling application.

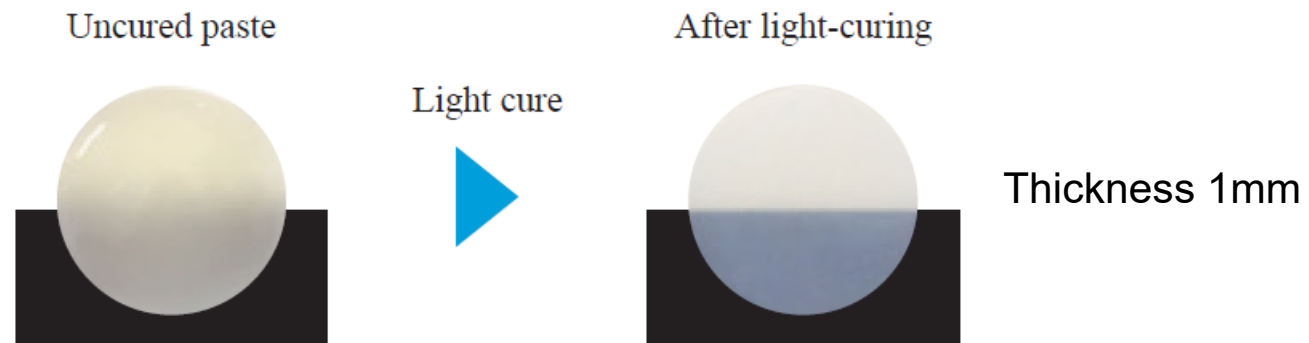




# OMNICHROMA *Flow* BULK Before & After



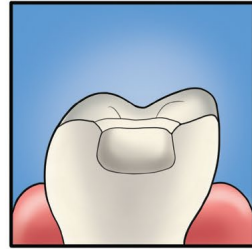
OMNICHROMA *Flow* BULK's uncured resin material is opaque-white, making it easy to distinguish between the uncured resin material and tooth structure.  
After light-curing, OMNICHROMA *Flow* BULK adapts to the color of the cavity, giving it a natural appearance.



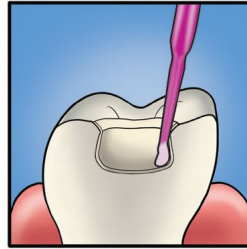


# OMNICHROMA *Flow* BULK Clinical Procedure

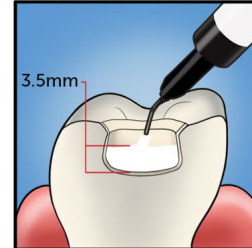
## POSTERIOR



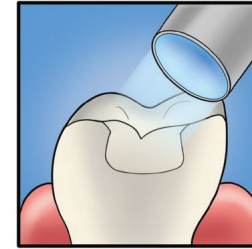
Preparation: Add chamfers to help eliminate margin visibility and aid shade matching.



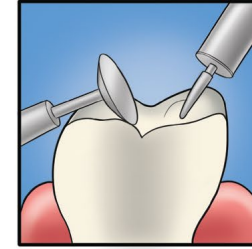
Apply bonding agent.



Fill with OMNICHROMA *Flow* BULK.

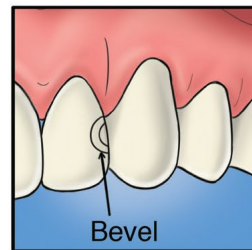


Light-cure.  
(Curing time varies depending on intensity of the curing light.)

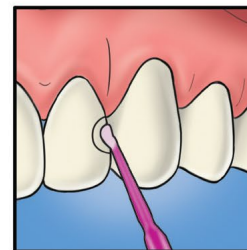


Finish and polish.

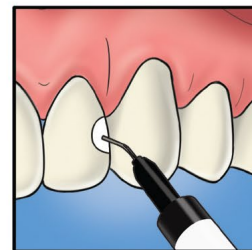
## ANTERIOR



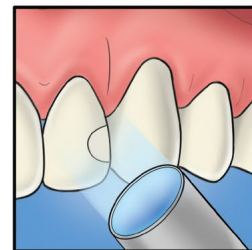
Preparation: Add bevels to help eliminate margin visibility and aid shade matching.



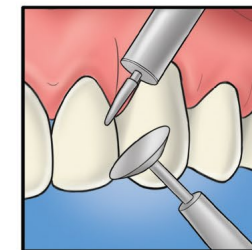
Apply bonding agent.



Fill with OMNICHROMA *Flow* BULK.



Light-cure.  
(Curing time varies depending on intensity of the curing light.)



Finish and polish.



# OMNICHROMA BLOCKER / OMNICHROMA BLOCKER *Flow*



Supplementary material designed for use to mask slight staining or metal color, to reconstruct a highly opaque tooth, or to use as a thin layer at the lingual cavity wall of extensive class III and IV restorations when there is limited surrounding dentition.

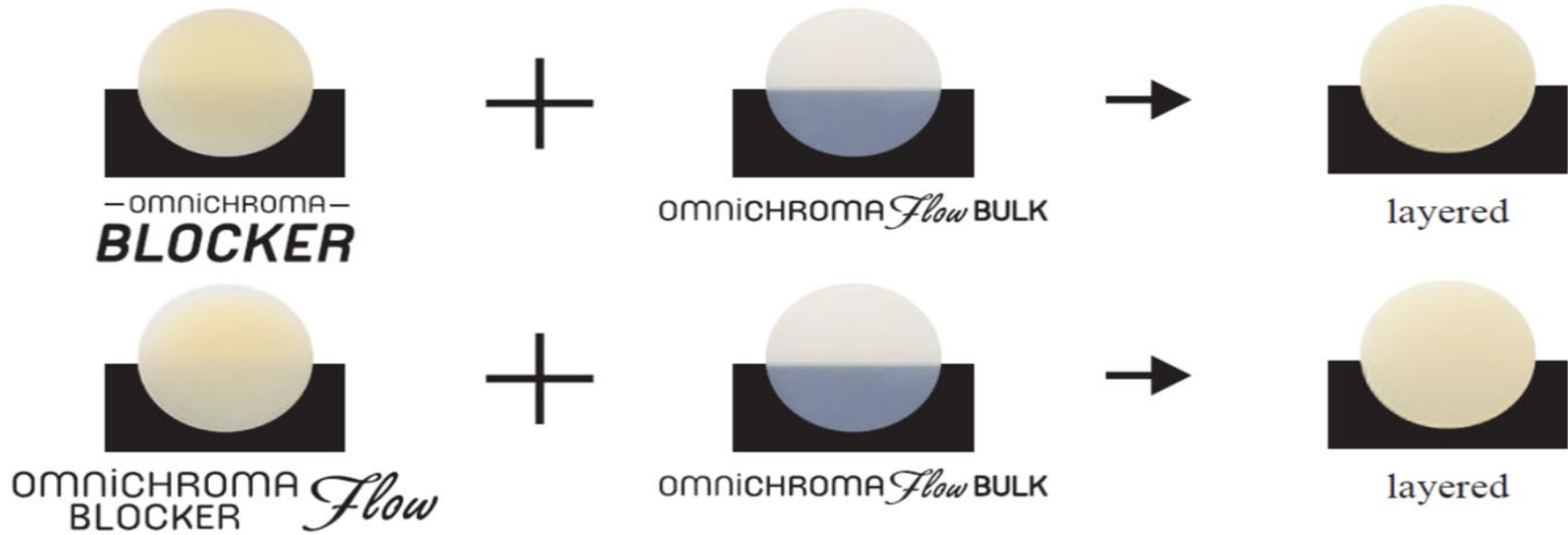
## Benefits

- To improve shade adaptation and prevent OMNICHROMA *Flow* BULK from picking up the darkness of the oral cavity
- To mask slight staining or discolored imperfections
- To reconstruct a highly opaque tooth



# OMNICHROMA BLOCKER / OMNICHROMA BLOCKER *Flow*

OMNICHROMA BLOCKER or OMNICHROMA BLOCKER *Flow* masks the background color and the color of OMNICHROMA *Flow* BULK adapts to that of OMNICHROMA BLOCKER (an A range opaque shade). When using other color masking material or opaquer, OMNICHROMA *Flow* BULK adapts to the shade of the color masking material or opaquer.



The color of OMNICHROMA *Flow* BULK before and after layering on OMNICHROMA BLOCKER or OMNICHROMA BLOCKER *Flow*



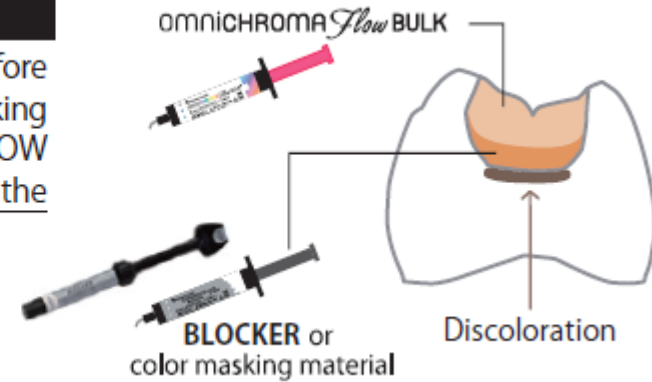


# OMNICHROMA BLOCKER / OMNICHROMA BLOCKER *Flow*

## Indications

### Masking discolored teeth or metal

Use **BLOCKER** or a color masking material before filling with OMNICHROMA FLOW BULK for masking discolored teeth or metal. OMNICHROMA FLOW BULK adapts to the shade of the **BLOCKER** or the color masking material.

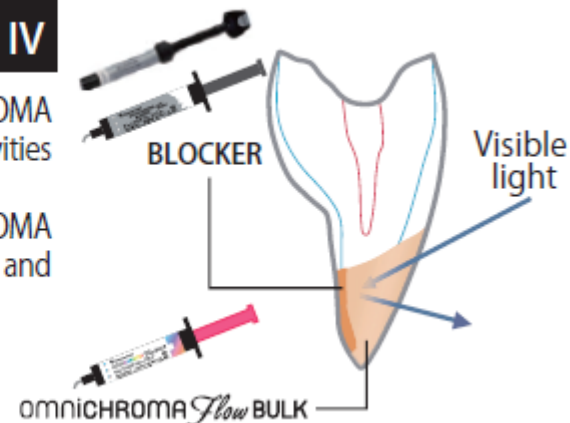


### Direct restoration of extensive Class III and IV

Use **BLOCKER** to build a lingual shelf before adding OMNICHROMA FLOW BULK for direct restoration of extensive Class III and IV cavities with no surrounding tooth structure.

**BLOCKER** improves shade adaption and prevents OMNICHROMA FLOW BULK from picking up the darkness of the oral cavity and potentially dropping in value.

\* To enhance both esthetics and retention, add bevels to the enamel margins of anterior preparations.

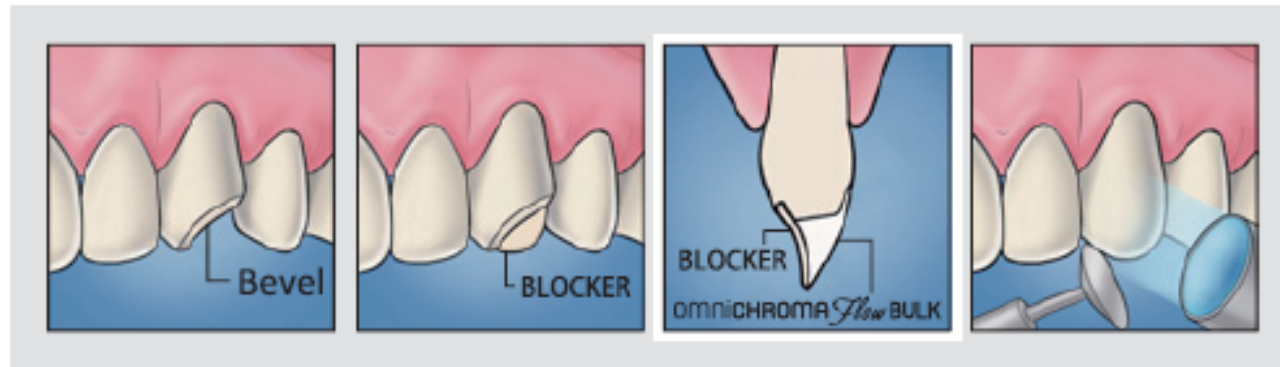




# OMNICHROMA BLOCKER / OMNICHROMA BLOCKER *Flow* + OMNICHROMA *Flow* BULK Clinical Procedure

Thickness of the BLOCKER layer depends on the case; the standard is 0.5 mm.

Use a thicker layer of BLOCKER for high brightness/opaque cases and a thinner layer for low brightness/transparent cases.





# Pricing



**MSRP  
\$79.00  
3g (1.8 mL)**



**MSRP  
\$75.95**



**MSRP  
\$114.61**



# OMNICHROMA PRODUCT FAMILY

we are excited to announce the launch of the newest member of the OMNICHROMA family – **OMNICHROMA Flow BULK** – offering dentists more flexibility and versatility to tailor to all their restorative needs.

omni**CHROMA**



omni**CHROMA** *Flow*



omni**CHROMA** *Flow* BULK





# omniCHROMA *Flow* BULK

One-Shade Bulk Fill Composite