

# Every Shade. One Choice.



# Flowable Composites Current Status

#### Flowable composites offer unique benefits

- Exhibit great cavity adaptation, reducing the risk of voids
- Can be placed in areas hard to reach with packable/ universal composites

#### However, flowable composites have challenges

- Physical-mechanical properties: Lower strength, High wear, High shrinkage stress
- Esthetic properties: Poor glossiness, Low stain resistance, Limit shade blendability

While there have been improvements in flowable composites, no single product has been able to address all these limitations



#### Implications for Clinicians

- Limited use as cavity liners and for minor restorations or repairs only
- High inventory cost: multiple shades; product waste; complex inventory management
- Lengthy chairtime: shade selection process; major restorations are performed using a flowable composite as cavity liner
  and then capping with a universal composite





Utilizing Smart Chromatic Technology and uniformly sized supra-nano spherical fillers, OMNICHROMA FLOW is the world's first one-shade flowable composite to esthetically match every color of tooth from A1 to D4 with a single shade of composite. It's high strength and wear resistance make it suitable for a wide range of indications beyond cavity lining and minor restorations, giving clinicians the freedom of choice for nearly all direct restorations.

### **BENEFITS TO CLINICIANS**

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







# **Features & Indications**OMNICHROMA FLOW

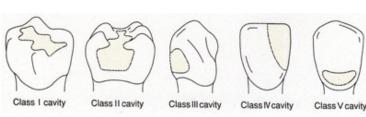


#### **OUTSTANDING FEATURES:**

- Excellent esthetic properties
  - o Unprecedented shade matching
  - o High polishability
  - o High stain resistance
- Excellent physical-mechanical properties
  - o Flexural and compressive strength suitable for a wide range of indications
  - o Low wear and abrasion
  - o Low polymerization shrinkage

#### **INDICATIONS:**

- All cases of direct anterior and posterior restoration
- Cavity base or liner
- Repair of porcelain/composite





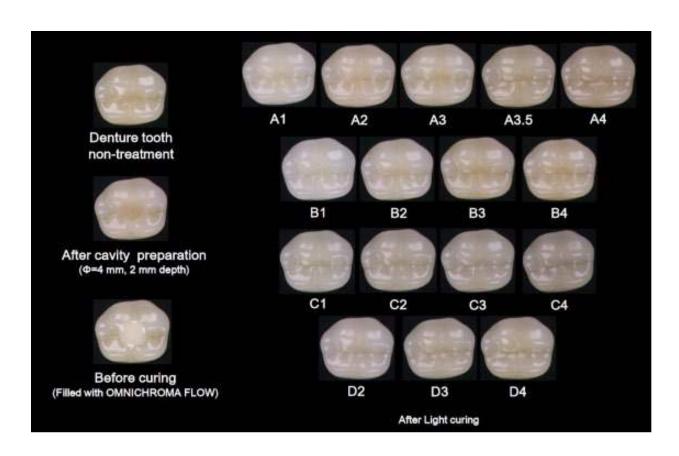


OMNICHROMA Flow

# **Unprecedented Color Matching**OMNICHROMA FLOW



Like OMNICHROMA – the world's first one-shade universal composite and Tokuyama's latest prodigy launched in February 2019 – OMNICHROMA FLOW was developed based on *SMART CHROMATIC TECHNOLOGY* enabling it to match the 16 Vita classical shades.



#### **COMPETITORS**

All flowable composites currently on the market offer multiple shades to match all patients' tooth shades.





Filtek™ Supreme Ultra Flowable (3M)

A1, A2, A3, A3.5, A4, B1, B2, C2, D2, White, Extra white, OA3

Tetric EvoFlow (Ivoclar Vivadent)

A1, A2, A3, A3.5, A4, B1, B3, A2 Dentin, A3.5 Dentin, B2 Dentin, T, Bleach XL, Bleach L, Bleach M G-ænial™ Universal Flo

A1, A2, A3, A3.5, A4, B1, B2, B3, C3, CV, BW, A02, A03, JE, AE

Unlike its competitors, **OMNICHROMA FLOW** enables one shade of composite to match any color of tooth.

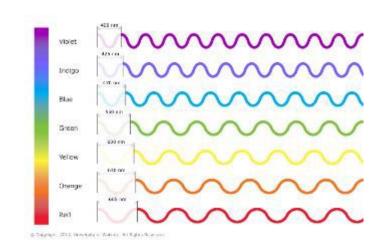




# Unprecedented Color Matching SMART CHROMATIC TECHNOLOGY

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

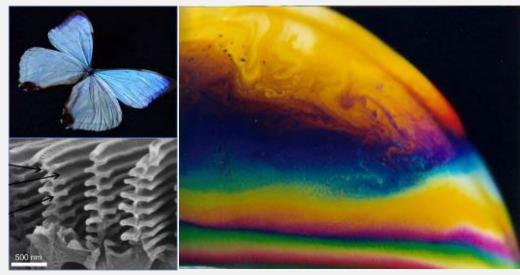
The most common form of color visible to us and happens when molecules of a material reflect particular wavelengths.



Typical composites today rely on the <u>chemical color</u> 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.





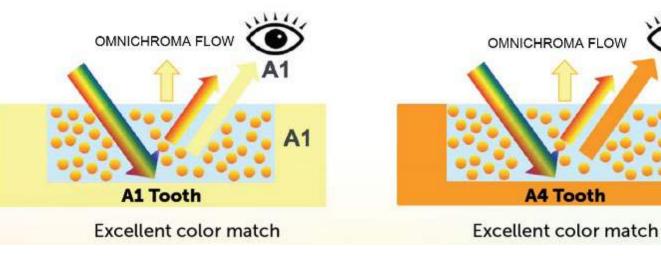
# Unprecedented Color Matching SMART CHROMATIC TECHNOLOGY



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

- Leverages structural color as the main color mechanism
- Does not require added dyes or pigments
- Fillers themselves generate color reflecting the shade of the surrounding tooth





# Components OMNICHROMA FLOW

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

### Filler

Uniform sized supra-nano spherical filler  $(260 \text{nm SiO}_2\text{-ZrO}_2)$ Round shaped composite filler  $(\text{including }260 \text{nm spherical SiO}_2\text{-ZrO}_2)$ 

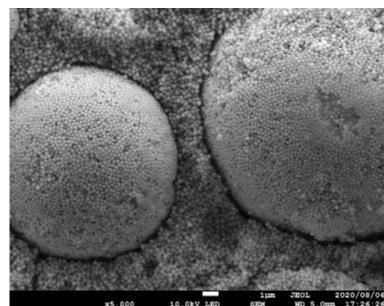
### **Monomers**

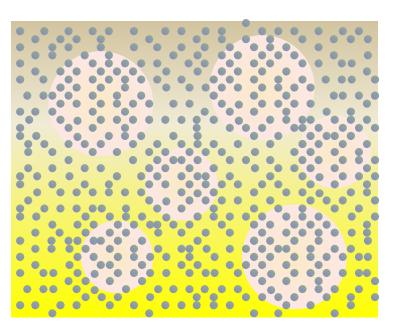
UDMA/1,9-Nonanediol Dimethacrylate

Filler loading

70wt% (57vol%)











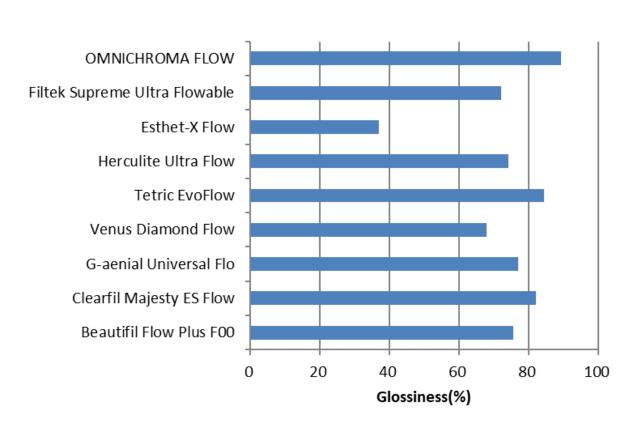
# High Polishability OMNICHROMA FLOW

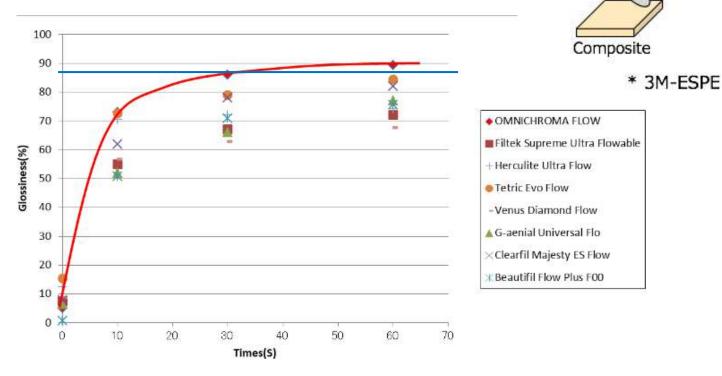


Polisher

OMNICHROMA FLOW produces extremely high glossiness compared to other flowable composites.

#### Polishing test using Sof-Lex<sup>TM</sup> Superfine\* for 60second





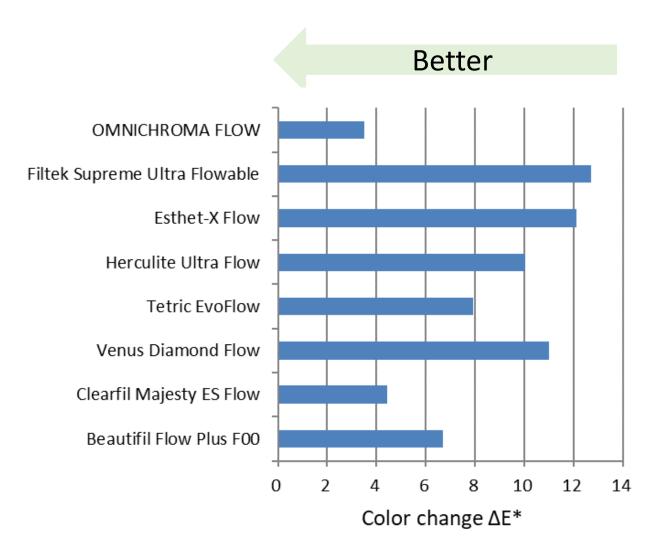
After just 30 seconds, OMNICHROMA FLOW reaches higher levels of gloss than other products can achieve in 60.





# Staining Resistance (Color Stability) OMNICHROMA FLOW

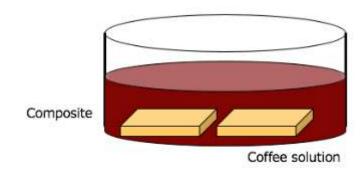
The extent of staining for OMNICHROMA FLOW after soaking in coffee was the lowest among commercially available flowable resin composites, meaning OMNICHROMA FLOW will resist staining for the life of the restoration.



#### Coffee staining test

Composites were immersed in 7.4wt% coffee solution (Nescafe Excella, Nestle) for 24hours at 80°C

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



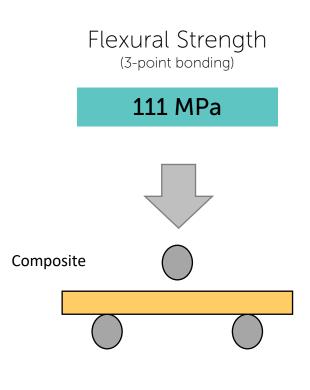


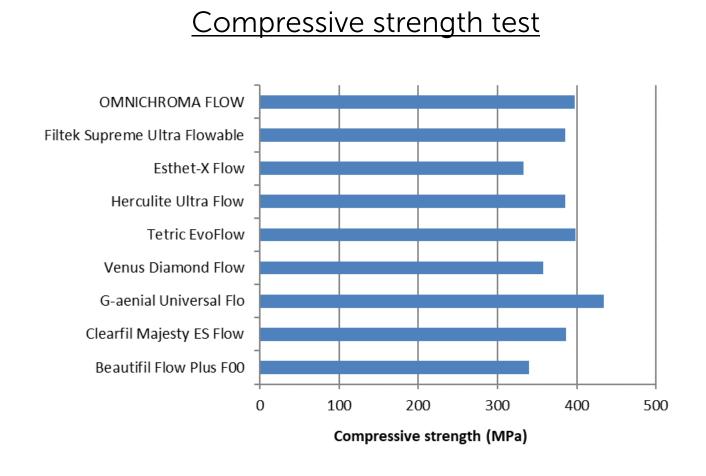


# Flexural Strength & Compressive Strength OMNICHROMA FLOW

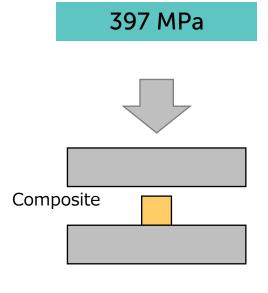


The flexural strength of OMNICHROMA FLOW represents a typical level of MPa while its compressive strength is greater than most commercially available flowable composites - ensuring dependable results.





Compressive Strength



<sup>\*</sup> in accordance with ISO4049

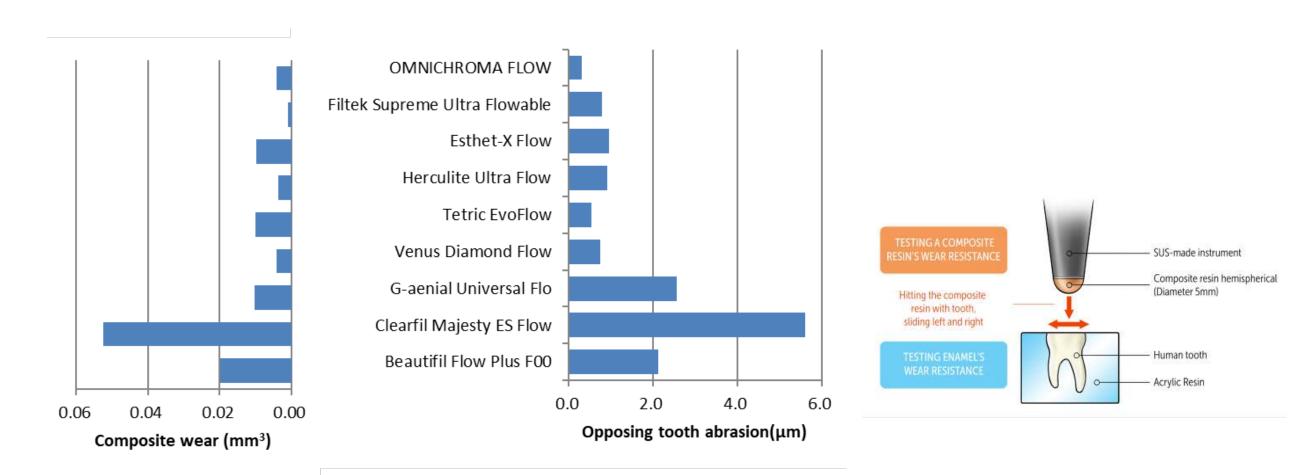




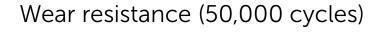
# Lower Wear and Abrasion OMNICHROMA FLOW



OMNICHROMA FLOW exhibits excellent balance between volume loss of the composite resin and wear of the human tooth and is less likely to abrade opposing teeth while not easily becoming abraded itself.



Source: Tokuyama Dental R&D



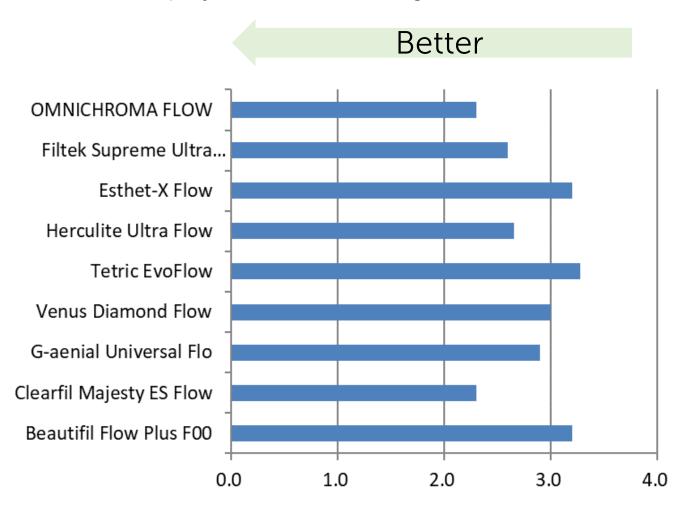


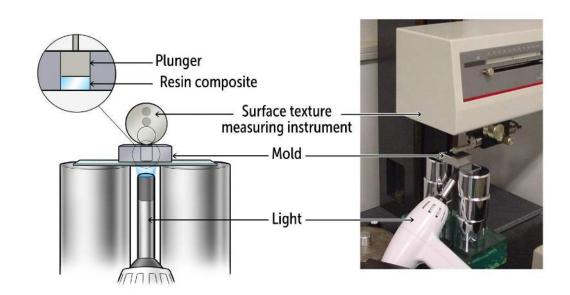


# Low Shrinkage OMNICHROMA FLOW



Compared to other commercially available flowable resin composites, **OMNICHROMA FLOW** exhibits low polymerization shrinkage.





Polymerization shrinkage (%linear)

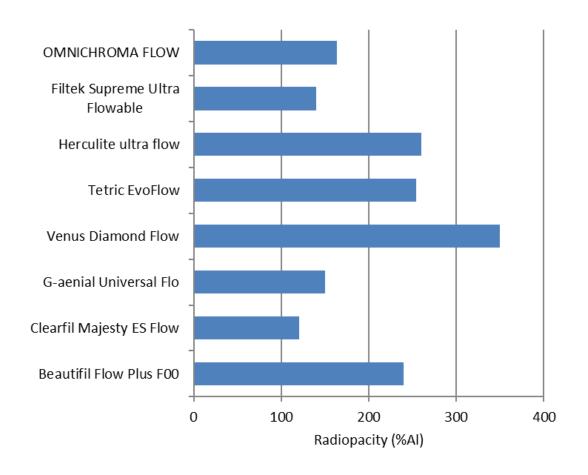




# Radiopacity OMNICHROMA FLOW



The radiopacity level of OMNICHROMA FLOW is sufficient for prognosis observations.

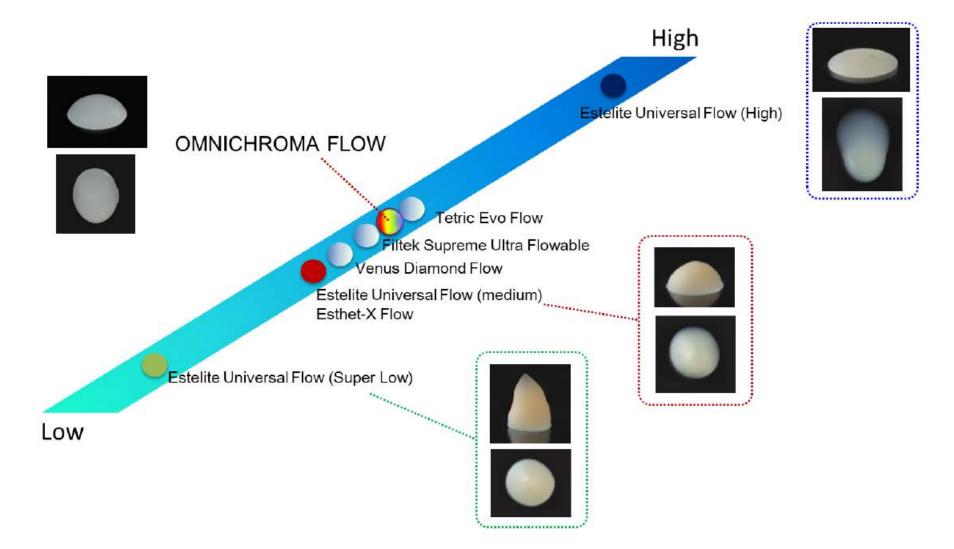






# Viscosity OMNICHROMA FLOW

OMNICHROMA FLOW exhibits characteristics of a medium viscosity composite.







# Clinical Procedure OMNICHROMA FLOW

#### **POSTERIOR**



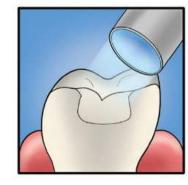
Preparation: Add chamfers to help eliminate margin visibility and aid shade matching.



Apply bonding agent.



Fill with OMNICHROMA FLOW.

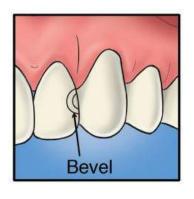


Light-cure.
(Curing time varies depending on intensity of the curing light).



Finish and polish.

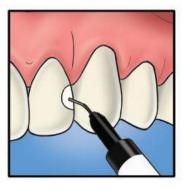
#### **ANTERIOR**



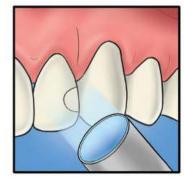
Preparation: Add bevels to help eliminate margin visibility and aid shade matching.



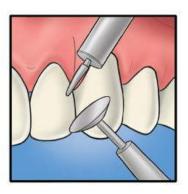
Apply bonding agent.



Fill with OMNICHROMA FLOW.



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



Finish and polish.



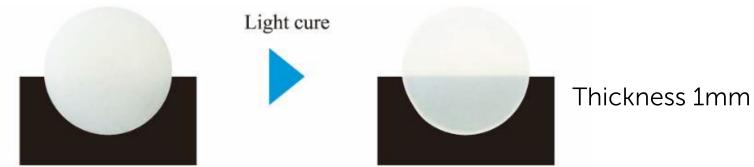
# Before & After OMNICHROMA FLOW





OMNICHROMA FLOW appears opaque-white before curing, allowing for higher visibility and easier of placement. Once cured, it generates the perfect match to the surrounding tooth, and can produce this effect even when the patient's tooth color changes, e. g. after bleaching.

Uncured paste



After light-curing





### **OMNICHROMA BLOCKER FLOW**





Supplementary material designed for use in large Class III or IV restorations as well as cases that require to mask stains.

#### **Benefits**

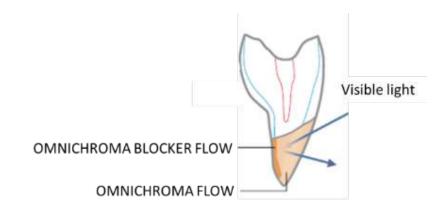
- To improve shade adaptation and preventing OMNICHROMA FLOW from picking up the darkness of the oral cavity
- To mask slight staining or discolored imperfections
- To reconstruct a highly opaque tooth





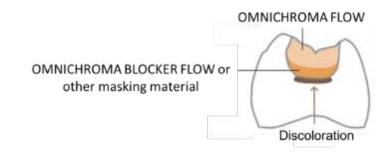
# Indications OMNICHROMA BLOCKER FLOW

In large Class III and IV cases with little tooth structure and lack of surrounding dentition, shade-matching interference may occur if only OMNICHROMA FLOW is used. Utilizing OMNICHROMA BLOCKER FLOW overcomes this limitation by working as a supplementary material/lingual layer which reduces shade-matching interference and provides the perfect color match.



OMNICHROMA BLOCKER FLOW can also be used in cases requiring to mask slight staining (e.g. previously treated with amalgam) or to reconstruct a highly opaque tooth.







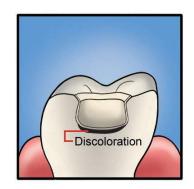


#### **Clinical Procedure**

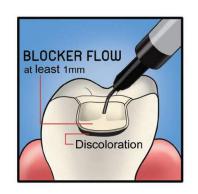
#### OMNICHROMA BLOCKER FLOW + OMNICHROMA FLOW



#### **POSTERIOR**



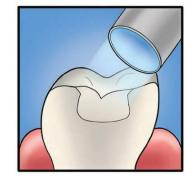
Prepare and apply bonding. Add a bevel to help eliminate margin visibility and aid in shade matching.



Apply BLOCKER FLOW as a base layer to mask discoloration. Thickness can vary, but 1mm is illustrated as a guide.
Light-cure.



Apply OMNICHROMA FLOW in 2mm increments.



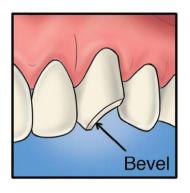
Light-cure.
(Curing time varies depending on intensity of the curing light.)

OMNICHROMA FLOW

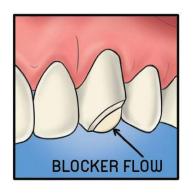


Finish and polish.

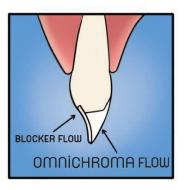
#### **ANTERIOR**



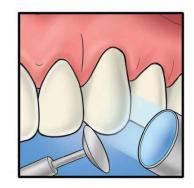
Prepare and apply bonding. Add chamfers or bevels to help eliminate margins and aid shade matching.



Apply BLOCKER FLOW as a lingual layer.
Thickness can vary, but 0.5mm is illustrated as a guide.
Light-cure.



Apply OMNICHROMA FLOW as a secondary layer.



Light-cure, finish, and polish.





# **Pricing**









## **OMNICHROMA PRODUCT FAMILY**



In February 2019, the history of dentistry was marked by a major milestone with the launch of **OMNICHROMA** - the world's first one-shade universal composite. Now, in Feb 2021, a new milestone has been reached with the launching of **OMNICHROMA FLOW** - the world's first one-shade flowable composite.

# omnichroma













# Every Shade. One Choice.

www.omnichromaflow.com

