# Ome-Shade Flowable Composite

## **Every** Shade. One Choice.



### **Flowable Composites Current Status**

Flowable composites offer unique benefits

- Exhibit great cavity adaptation, reducing the risk of voids ٠
- 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



OMNICHROMA FLOW is the world's first one-shade flowable composite that esthetically matches every color of tooth with a single shade and is suitable for a wide range of indications beyond cavity lining and minor restorations.

#### **BENEFITS TO CLINICIANS**

- Increased efficiency saving time and money  $\checkmark$
- Simplified inventory management  $\checkmark$
- Reduction of unused composite waste
- Never run low on composite shades ever again!  $\checkmark$







### **OMNICHROMA**

### **Features & Indications** OMNICHROMA FLOW

#### **OUTSTANDING FEATURES:**

- Excellent esthetic properties
  - Unprecedented shade matching
  - High polishability
  - o High stain resistance
- Excellent physical-mechanical properties
  - o Flexural and compressive strengths suitable for wide range of restorations
  - $\circ$   $\,$  Low wear and abrasion  $\,$
  - Low polymerization shrinkage

#### **INDICATIONS:**

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









#### **Unprecedented Color Matching OMNICHROMA FLOW**

Like OMNICHROMA – the world's first omnichromatic 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.



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





G-ænial<sup>™</sup> Universal Flo (GC)

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

### OMNICHROMA

### **Unprecedented Color Matching** SMART CHROMATIC TECHNOLOGY

Color is nothing more than the wave length of light that reaches our eyes. •

> From violet, which is the smallest wave length, to red, which is the largest, these wave lengths make up the visible spectrum of color that we can see. White light contains all wave lengths of color.

There are 2 types of color producing phenomenon

Chemical color is the most common form of color visible to us and happens when molecules of a material reflect particular wave lengths.



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

Structural color is when structure of the material amplifies or weakens different wave lengths.









#### **OMNICHROMA**

#### **Unprecedented Color Matching** SMART CHROMATIC TECHNOLOGY

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

- Leverages the structural color as the main color mechanism
- Does not require added dyes or pigments
- Fillers themselves generate color, which reflects the color of the surrounding tooth
- Filler materials must meet stringent requirements to be able to exhibit structural color







### Components OMNICHROMA FLOW

#### SEM image of OMNICHROMA FLOW (Magnified x5,000)

#### Filler

Uniform sized supra-nano spherical filler (260nm  $SiO_2$ -Zr $O_2$ ) Round shaped composite filler (including 260nm spherical  $SiO_2$ -Zr $O_2$ )

#### Monomers

#### UDMA/1,9-Nonanediol Dimethacrylate

**Filler loading** 70wt% (57vol%)









### **High Polishability OMNICHROMA FLOW**

OMNICHROMA FLOW produces extremely high glossiness, higher than other products



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



Polisher Polisher Composite	
Composit *	e 3M-ESPE
◆ OMNICHROMA FLOW	e 3M-ESPE
Composit     Composit     *	e 3M-ESPE
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Composit Composit * • OMNICHROMA FLOW = Filtek Supreme Ultra Flowable + Herculite Ultra Flow • Tetric Evo Flow - Venus Diamond Flow A G-aenial Universal Flo × Clearfil Majesty ES Flow	e 3M-ESPE



### **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.









### **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 clinically acceptable results.



\* 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.



Wear resistance (50,000 cycles)



Source: Tokuyama Dental R&D







### Low Shrinkage **OMNICHROMA FLOW**

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



Polymerization shrinkage (%linear)



Source: Tokuyama Dental R&D





### 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. A A

Apply bonding agent.



Fill with OMNICHROMA FLOW.



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

#### Anterior



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



Apply bonding agent and fill OMNICHROMA FLOW.



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



Finish and polish.

Note: OMNICHROMA FLOW appears opaque-white before curing, allowing for higher visibility and easier placement. It becomes the perfect match to the surrounding tooth after curing.





Finish and polish.



### **Before & After OMNICHROMA FLOW**



OMNICHROMA FLOW appears opaque-white before curing. Once curing is complete, the result is a perfect match to the surrounding tooth color.









#### **OMNICHROMA BLOCKER FLOW**



Supplementary material designed for extensive class III and IV restorations or special cases that require masking stains.

#### **Benefits:**

- To improve shade adaption and prevents OMNICHROMA FLOW from picking up the darkness of the oral cavity
- To mask slight staining or discolored imperfections ٠
- 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.





Note: OMNICHROMA BLOCKER FLOW has opaque A2 shade. Other color masking materials, such as OMNICHROMA BLOCKER can be also used as blocking material. OMNICHROMA FLOW adapts to the shade of color masking material used.





### **Clinical Procedure OMNICHROMA BLOCKER FLOW + OMNICHROMA FLOW**

OMNICHROMA BLOCKER FLOW is used as a lingual layer. Once cured, OMNICHROMA FLOW is applied as the second and final layer.

#### Anterior (class IV)



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

Apply BLOCKER FLOW as a lingual layer. Thickness of the lingual layer can vary, but 0.5mm is illustrated as a guide. Light Cure.

**BLOCKER FLOW** 





Apply OMNICHROMA FLOW as a secondary layer.



Note that OMNICHROMA FLOW is opaque white before curing. It blends naturally after curing.







Light cure, finish, and polish











#### **OMNICHROMA FAMILY**

In February 2019, the history of dentistry was marked by a major milestone with the launch of OMNICHROMA - the world's first oneshade 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.



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www.omnichromaflow.com

