

omniCHROMA

Resin-based Dental Restorative Material



Shade Adjustment with Typical Composites Competitors

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

Multi-layer system

Filtek Supreme Ultra



Premise



Estelite Omega



One-layer system

Estelite Sigma Quick



Clearfil Majesty ES-2 Classic



TPH Spectra

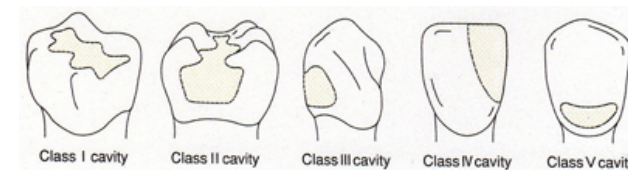


TPH Spectra ST



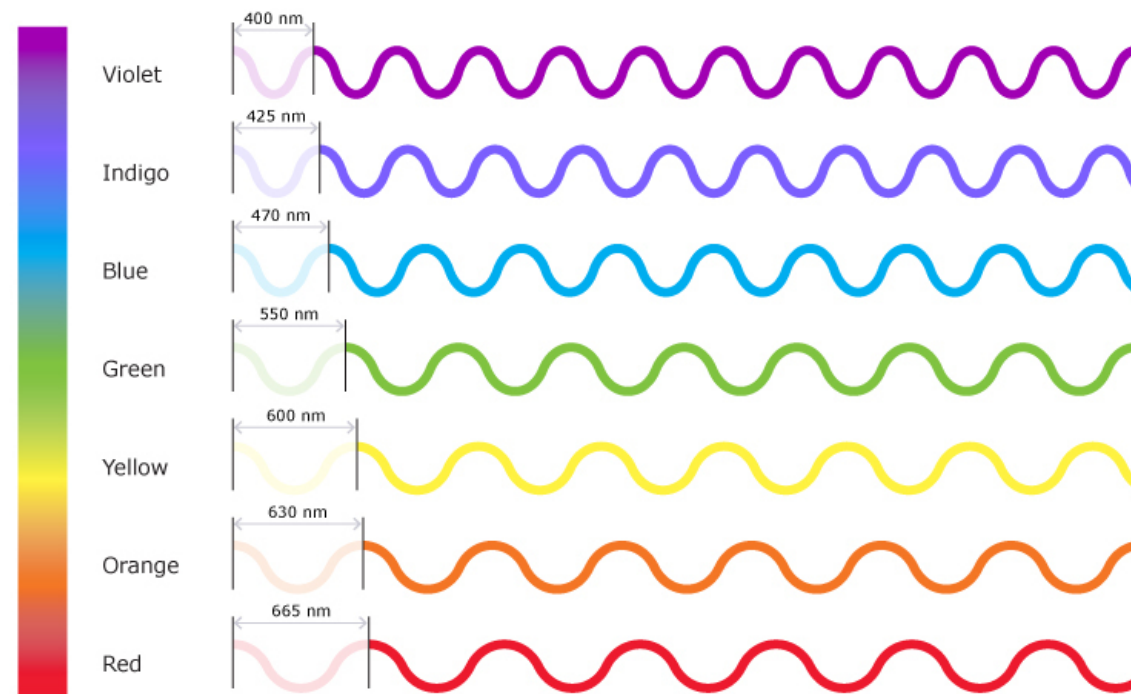
omniCHROMA

The first universal composite that offers ONE SHADE to match any patient and almost any case.



A Primer on Light and Color

What is color?



© Copyright. 2012. University of Waikato. All Rights Reserved.

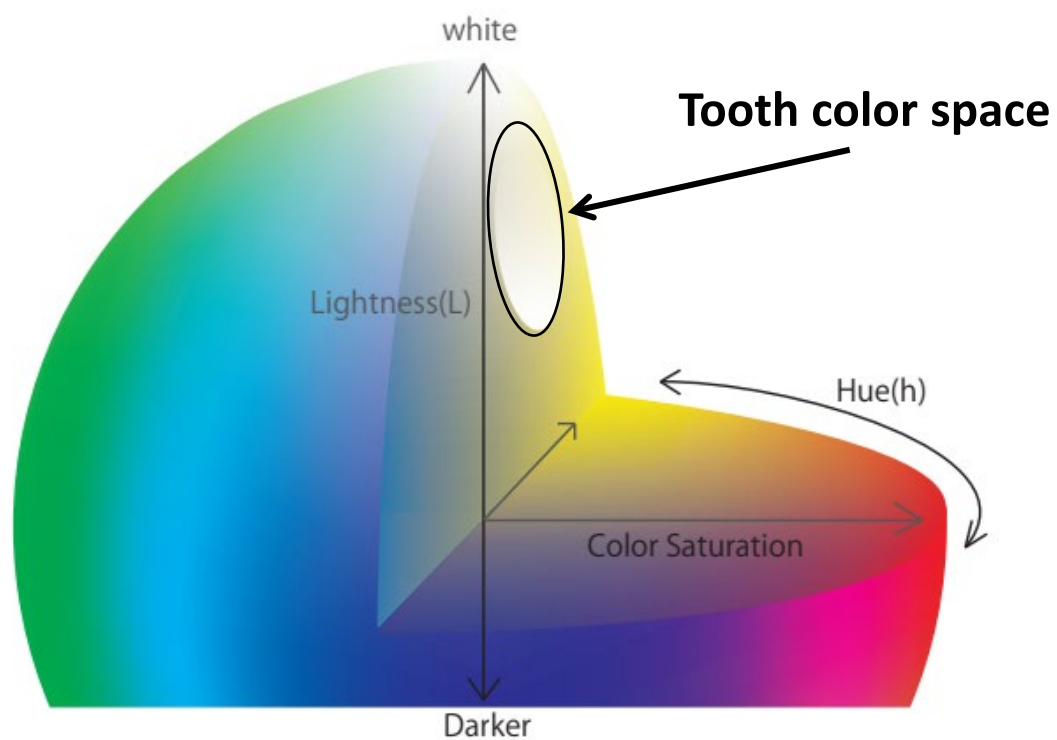
Color is nothing more than the wavelength of light that reaches our eyes.

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

A Primer on Light and Color

Color and teeth

Human teeth fall exclusively in the red-to-yellow color space.



Two Types of Color Producing Phenomenon

Chemical Color

Molecules of the material reflect particular wave lengths.

Chemical color is the most common form of color visible to us.

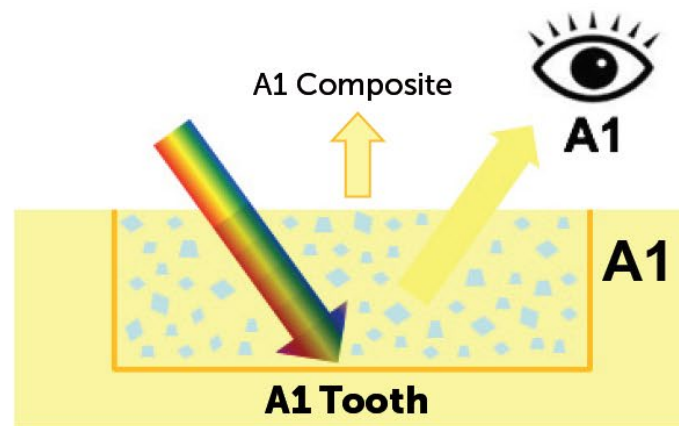


The chlorophyll in this plant, for instance, absorbs every wavelength of color except for green, which is reflected, so we see the plant as green.

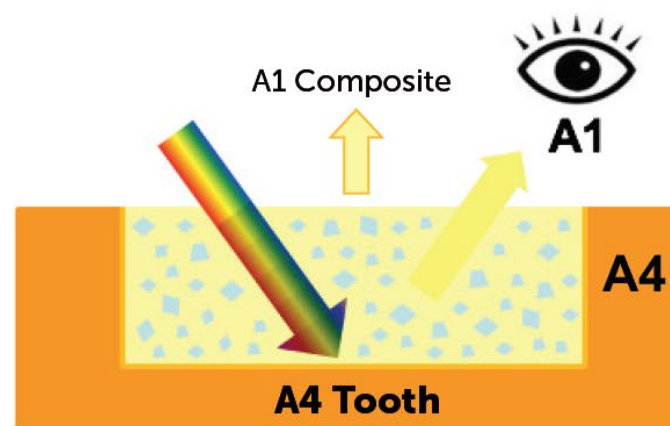
Typical Composites Today

Chemical Color

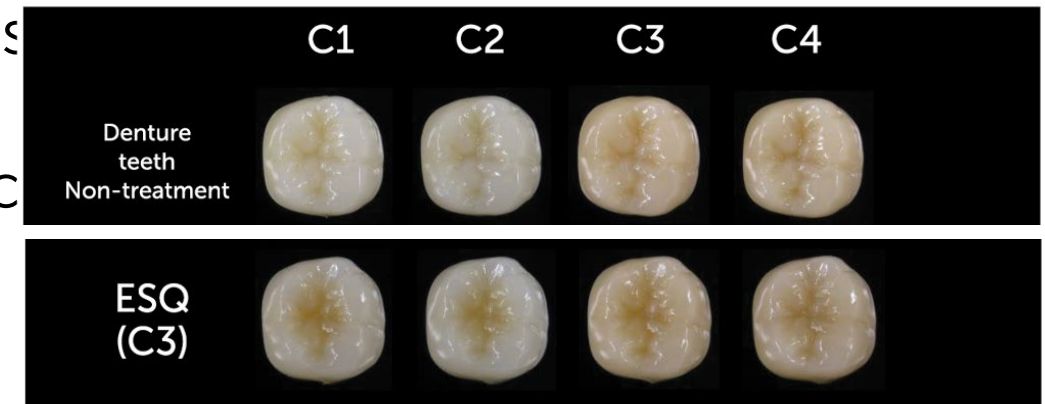
- Rely on the chemical color of added dyes and pigments
- Have specific shades for specific teeth
- Some have limited shade-matching ability, but not much



Excellent color match



Poor color match



Estelite Sigma Quick, for instance, is well known for its shade matching capabilities, but when a C3 shade of Estelite Sigma Quick is used to restore a C1 tooth, it doesn't match well, as shown in the diagram below.

Two Types of Color Producing Phenomenon

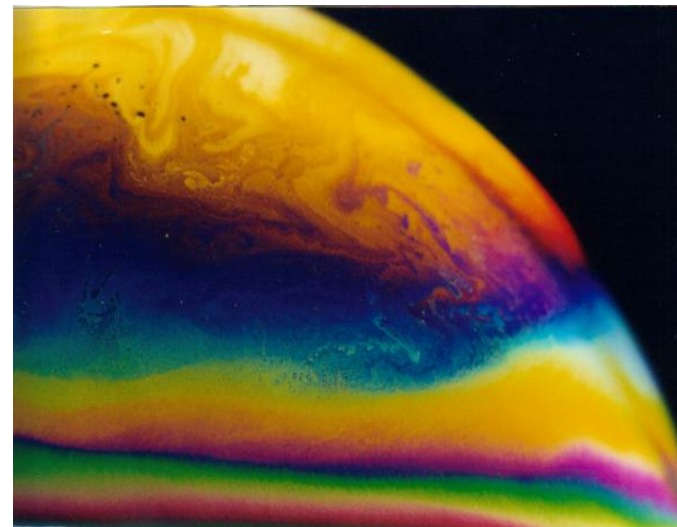
Structural Color

Structure of the material amplifies or weakens different wave lengths. Structural color is rare.

The morpho butterfly to the right isn't actually blue, but appears blue because of the way the microscopic structure of its wings interact with wavelengths of light.



The color visible on a soap bubble is produced by the film thicknesses of the bubble interacting with different wavelengths of light.



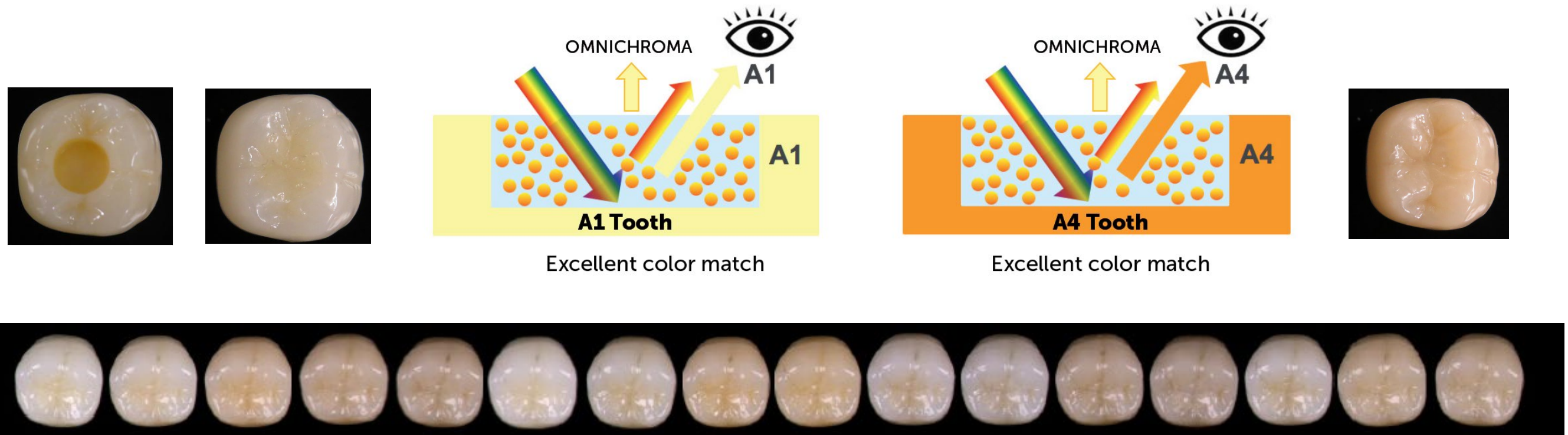
The color visible on a CD is produced by the the engravings on the disc interacting with different wavelengths of light.



Smart Chromatic Technology

OMNICHROMA

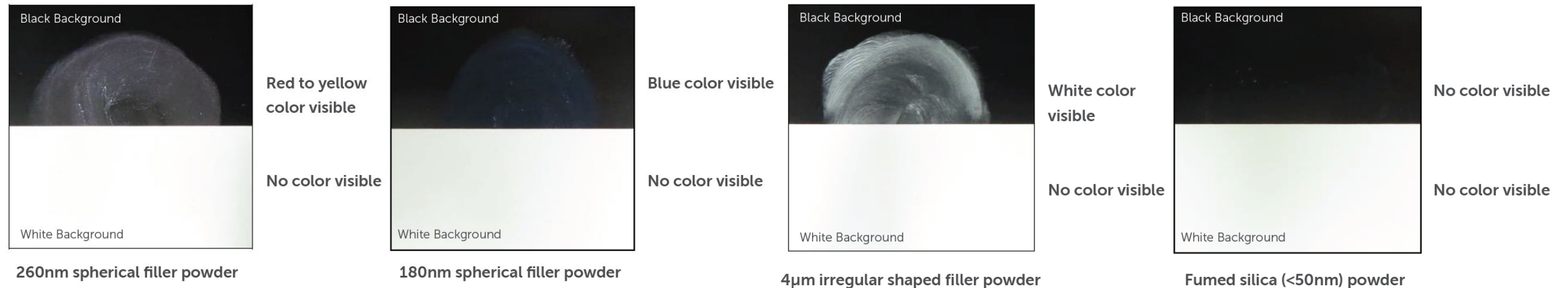
- OMNICHROMA is the first use of structural color in composite dentistry as the main color mechanism
- No added dyes or pigments
- Fillers themselves generate red-to-yellow structural color, which combines with the color of the surrounding tooth



Relationship Between Particle Size & Structural Color

OMNICHROMA

When spread out on black and white paper backgrounds, some filler materials can exhibit structural color, as seen in the colors visible below. White light reflected by the white background is very strong, which is why a structural color phenomenon is not visible on the white background.



Components

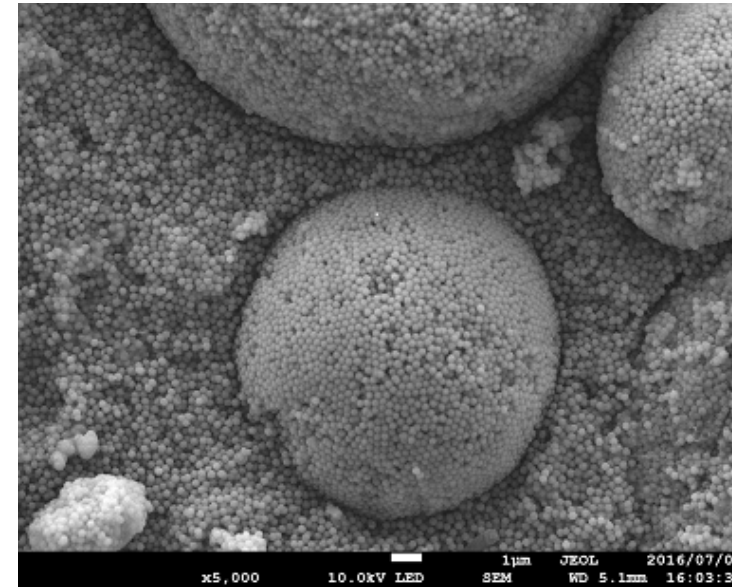
OMNICHROMA

Filler

Uniform sized supra-nano spherical filler
(260nm SiO₂-ZrO₂)

Round shaped composite filler
(including 260nm spherical SiO₂-ZrO₂)

SEM image of OMNICHROMA
(Magnified x5,000)

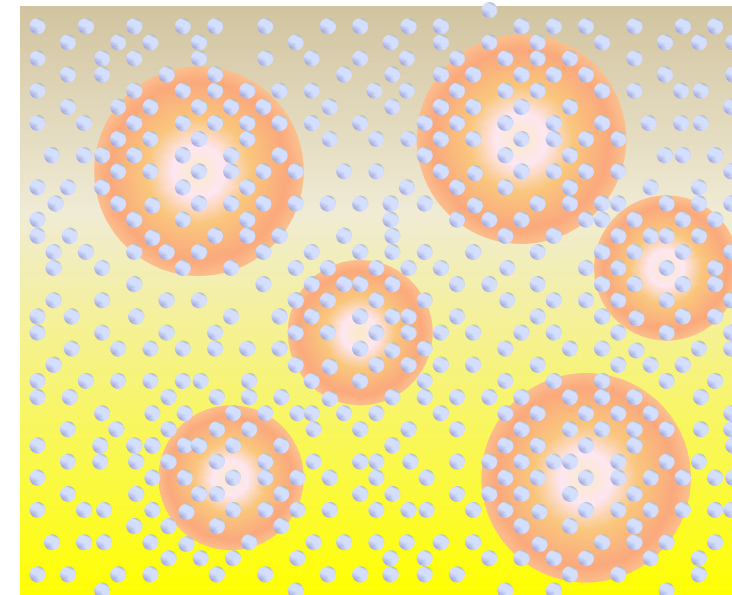


Monomers

UDMA/TEGDMA

Filler loading

79wt% (68vol%)



OMNICHROMA System



- Simplified inventory management
- Reduction of composite shades that only see incidental use
- Reduction of unused composite wastage
- Never be short stocked on a shade



Features & Indications

OMNICHROMA

Features:

- Unprecedented shade matching ability
- Shade matches both before and after bleaching
- High polishability inherited from ESTELITE
- Excellent physical-mechanical properties inherited from ESTELITE

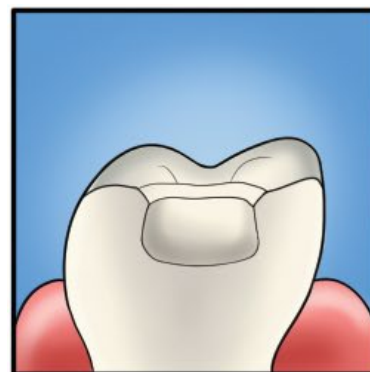
Indications:

- Direct anterior and posterior restorations
- Direct bonded composite veneer
- Diastema closure
- Repair of porcelain/composite

Clinical Procedure

OMNICHROMA

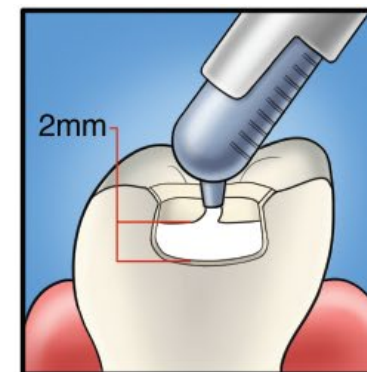
Posterior



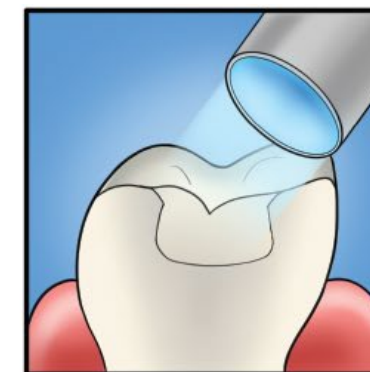
Preparation:
Add chamfers to help
eliminate margin
visibility and aid shade
matching.



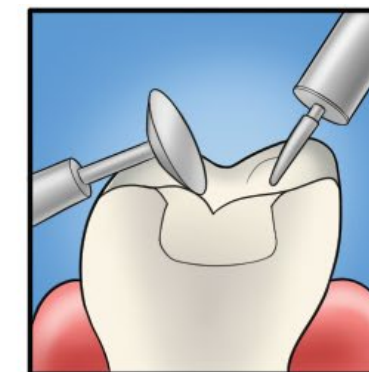
Apply bonding agent.



Fill with
OMNICHROMA.

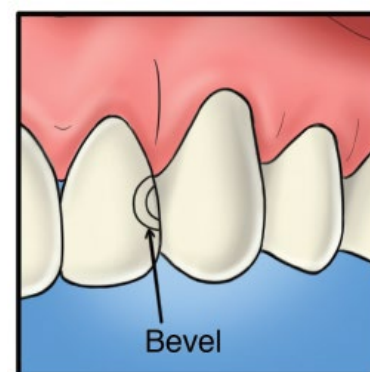


Light cure.
(Curing time varies
depending on intensity
of curing light.)

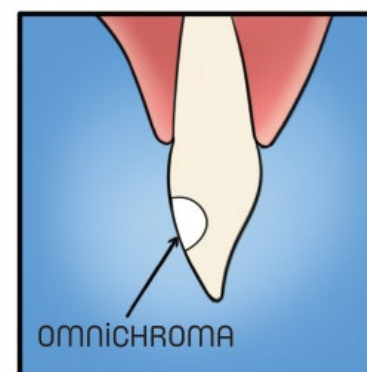


Finish and polish.

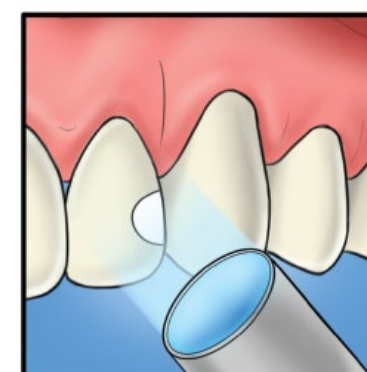
Anterior



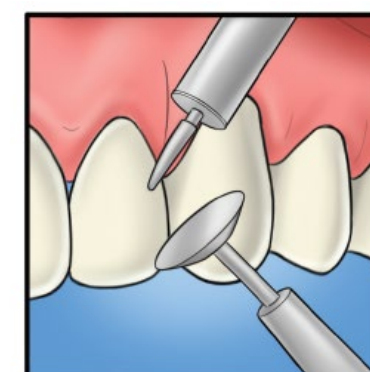
Preparation: Add bevels
to help eliminate margin
visibility and aid shade
matching.



Apply bonding
agent and fill
OMNICHROMA.



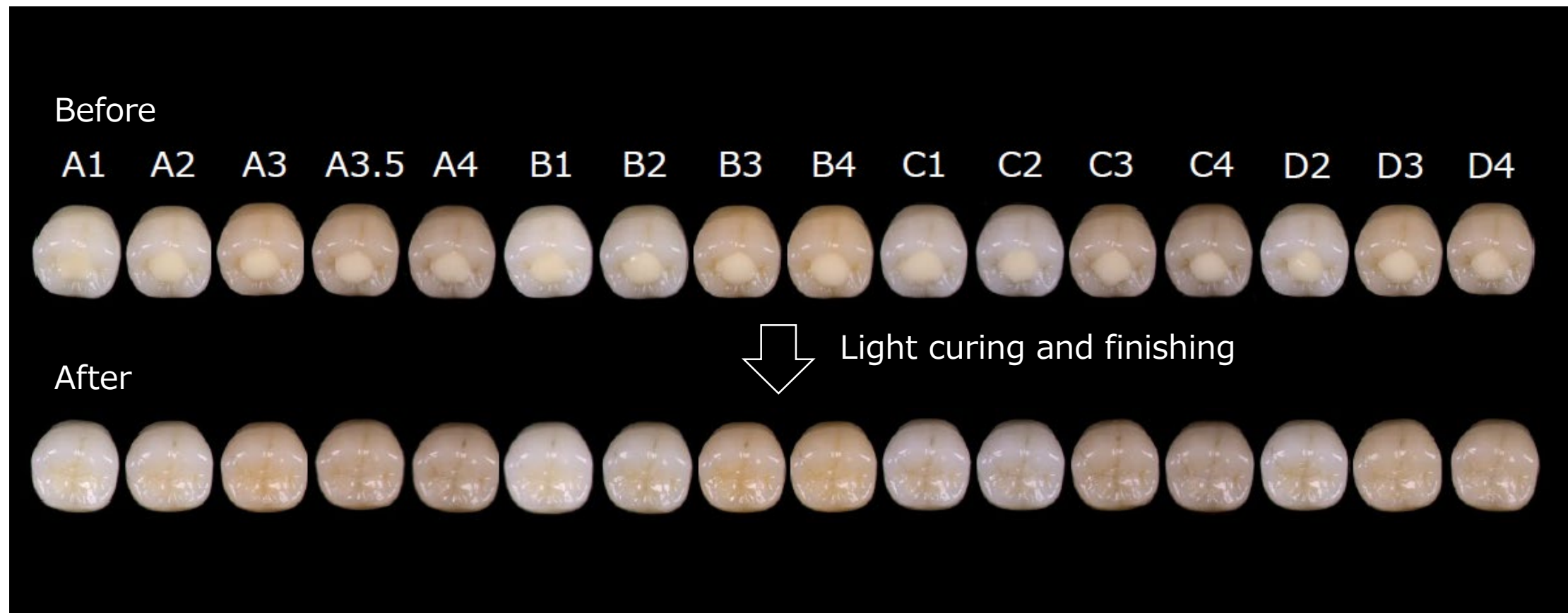
Light cure.
(Curing time varies
depending on intensity
of curing light.)



Finish and polish.

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

Before & After OMNICHROMA



OMNICHROMA appears opaque-white before curing, and then become the perfect match to the surrounding tooth after curing.

Large Anterior Cases

OMNICHROMA

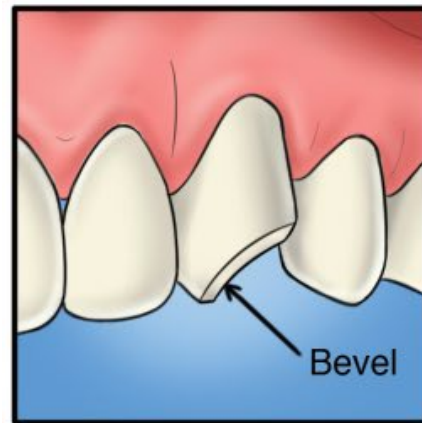
- In large Class III and IV cases, shade-matching interference may occur due to a lack of surrounding dentition
- OMNICHROMA BLOCKER overcomes this limitation by working as a supplementary material to reduce shade-matching interference
- Can also mask slight staining or be used to reconstruct a highly opaque tooth



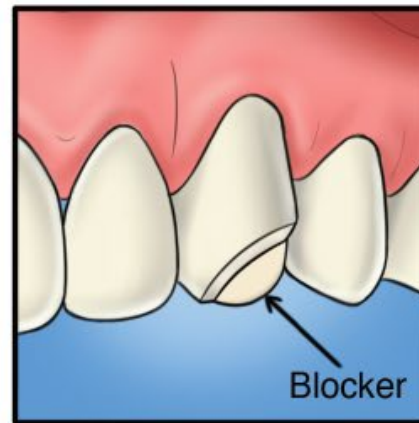
How to Use OMNICHROMA Blocker

OMNICHROMA

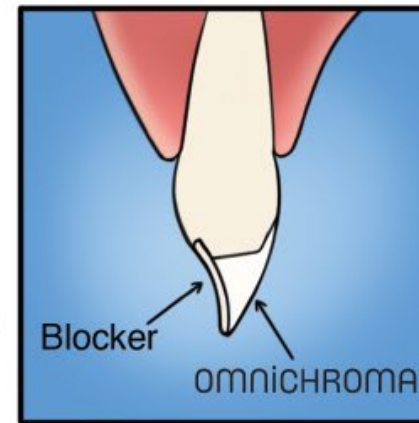
OMNICHROMA BLOCKER is used as a lingual layer for large Class III or Class IV restorations with limited surrounding dentition. After applying and curing OMNICHROMA BLOCKER, OMNICHROMA is applied as the second layer.



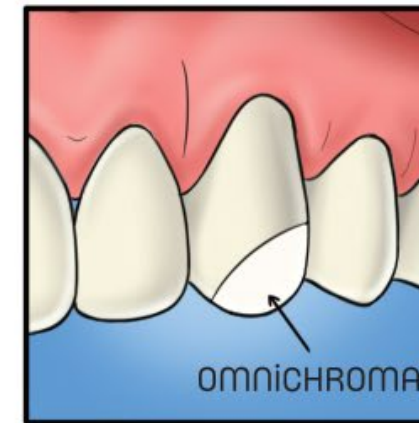
Preparation and apply bonding: Add chamfers or bevels to help eliminate margins and aid shade matching.



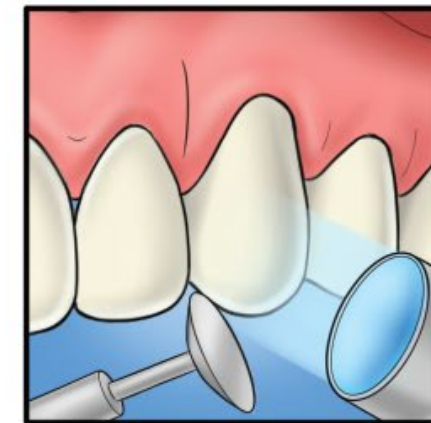
Apply BLOCKER as a lingual layer. Thickness of the lingual layer can vary, but 0.5mm is illustrated as a guide. Cure 20 secs.



Apply OMNICHROMA as a secondary layer.



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



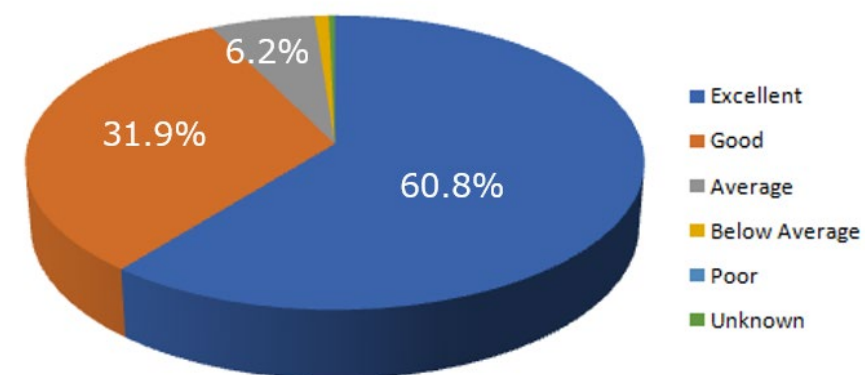
Light cure for 20 secs, finish, and polish

Clinical Evaluations

OMNICHROMA

Twenty-five doctors completed a total of 841 cases in examining OMNICHROMA.

92.7% rated good or excellent for total average among all shades & classes.



Color Matching Ratings

Excellent	511	60.8%
Good	268	31.9%
Average	52	6.2%
Below Average	7	0.8%
Poor	0	0.0%
Unknown	3	0.4%
Total	841	

	Polishability	Stability under Ambient Light	Handling
Excellent	15	11	13
Good	8	12	11
Average	0	0	1
Fair	0	0	0
Poor	0	0	0
Blank	2	2	0

OMNICHROMA Case Images

Class II

Before



After



Case image courtesy of Dr. James Chae, Diamond Bar, CA

OMNICHROMA Case Images

Class II

Before



After



Case image courtesy of Dr. James Chae, Diamond Bar, CA

OMNICHROMA Case Images

Class V— D4

Before



After



OMNICHROMA Case Images

Class V – Light Shade

Before



After



OMNICHROMA Case Images

Class III

Before



After



OMNICHROMA Case Images

Class IV with Blocker

Before



After



Excellent Esthetic Properties

High Polishability

Polishing test using Sof-Lex™ Superfine* for 60second

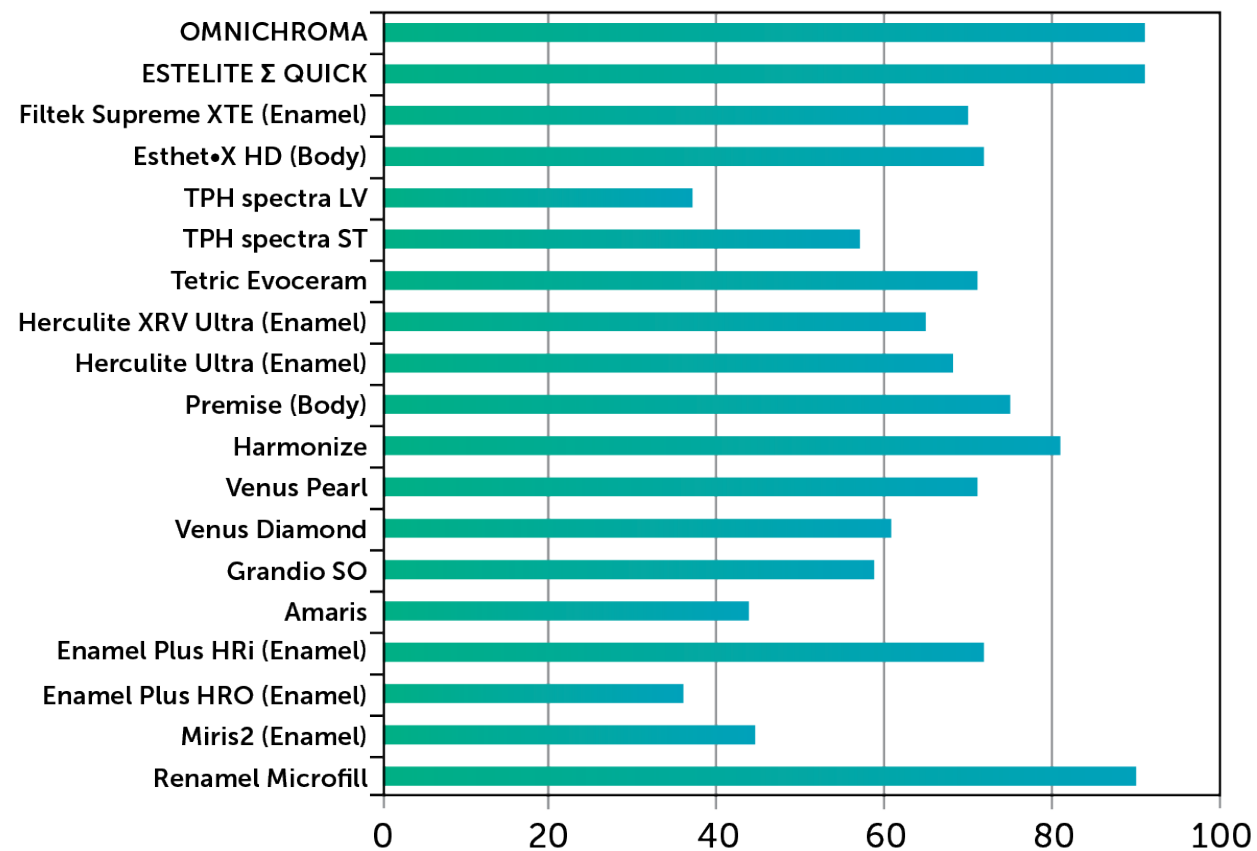
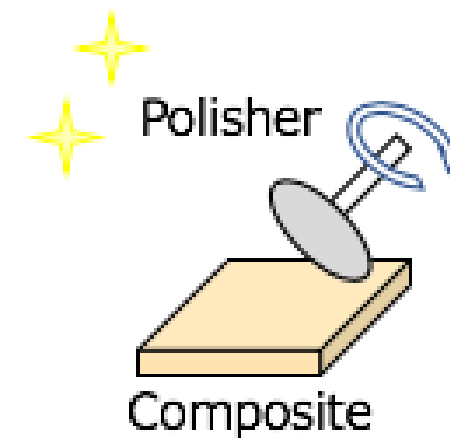


Fig. Surface Glossiness



* 3M-ESPE

The results show that both TOKUYAMA's ESTELITE SIGMA QUICK & OMNICHROMA produce extremely high glossiness.

Excellent Esthetic Properties

High Polishability

Polishing test using Sof-Lex™ Superfine* for 60second

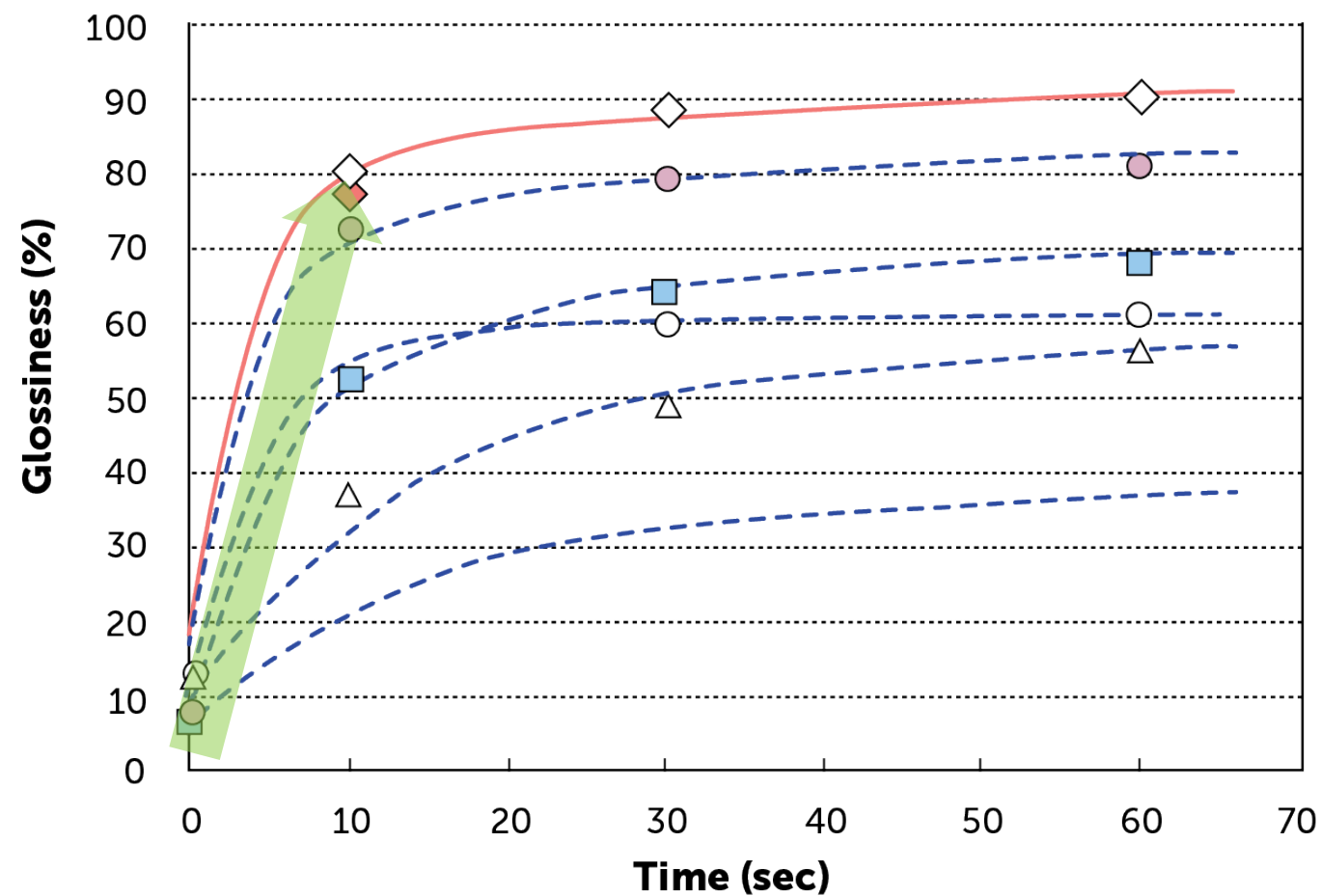
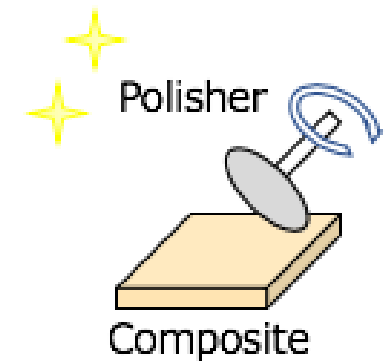
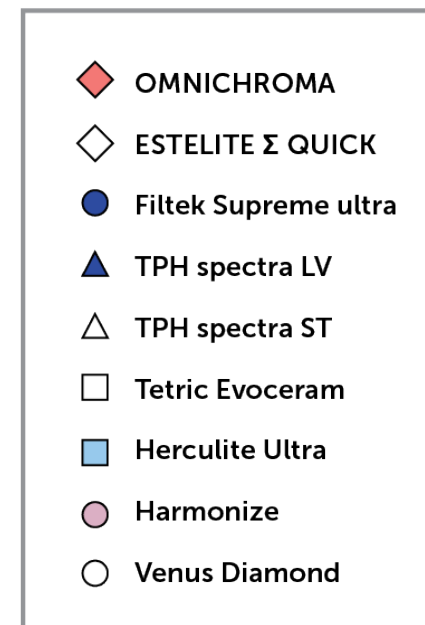


Fig. Relationship of glossiness to polishing time

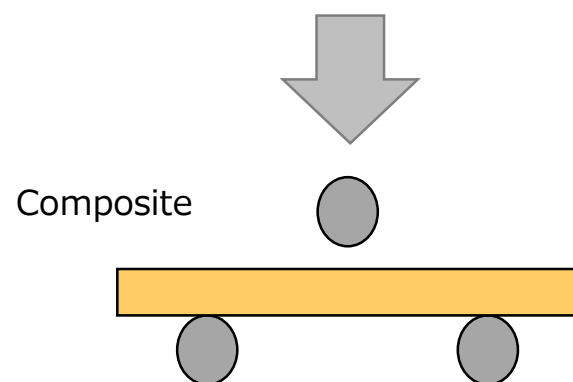


* 3M-ESPE

Excellent Physical Properties

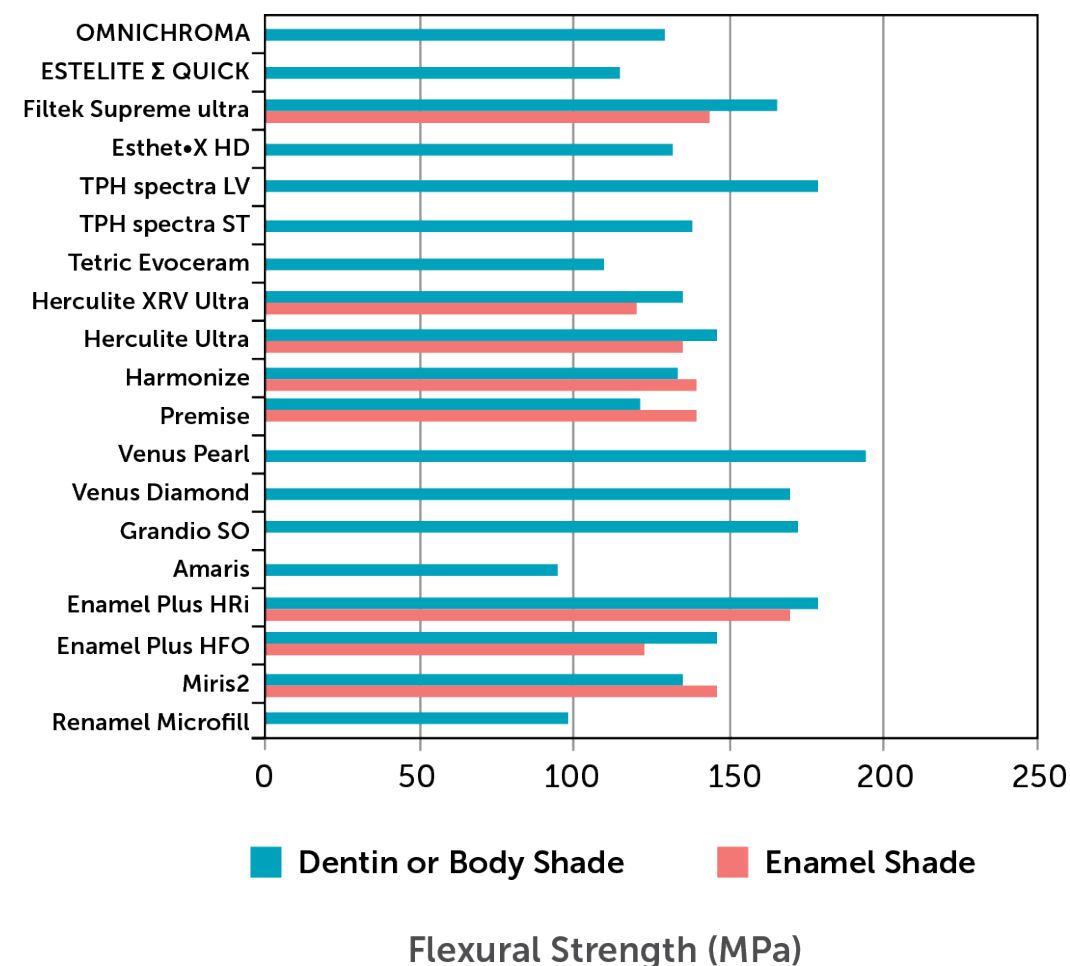
Strength

The flexural strength of OMNICHROMA is of average or higher levels among commercially available resin composites, ensuring clinically acceptable results.



* in accordance with ISO4049

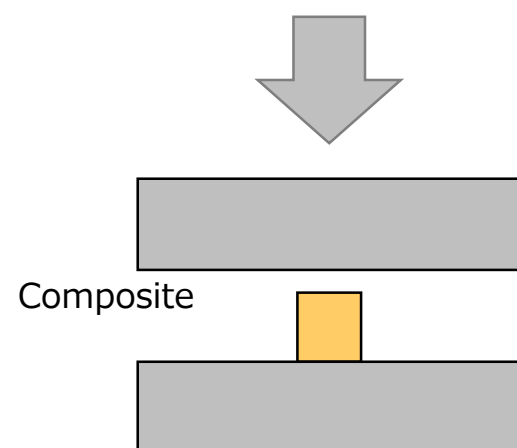
Three-point bending test*



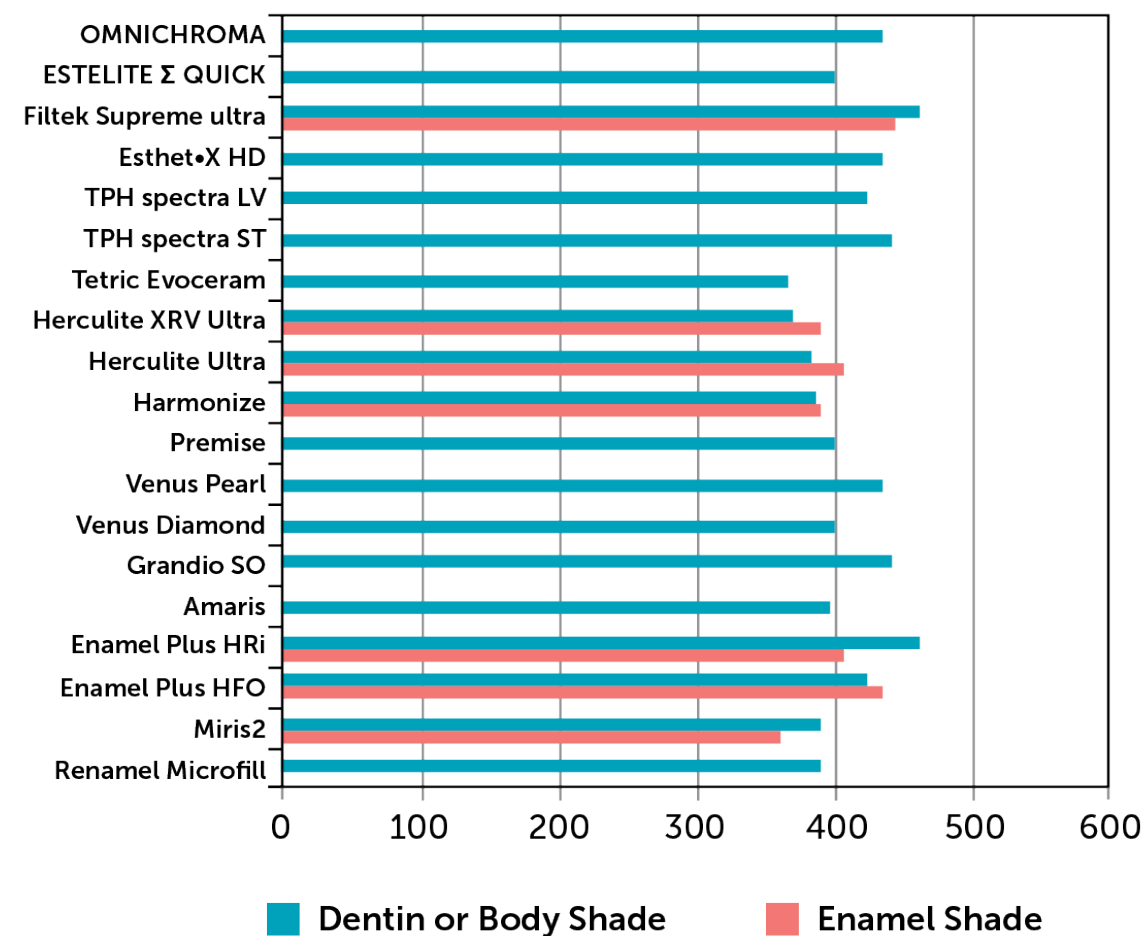
Excellent Physical Properties

Strength

The compressive strength of OMNICHROMA is higher than most commercially available resin composites, ensuring clinically acceptable results.



Compressive strength test

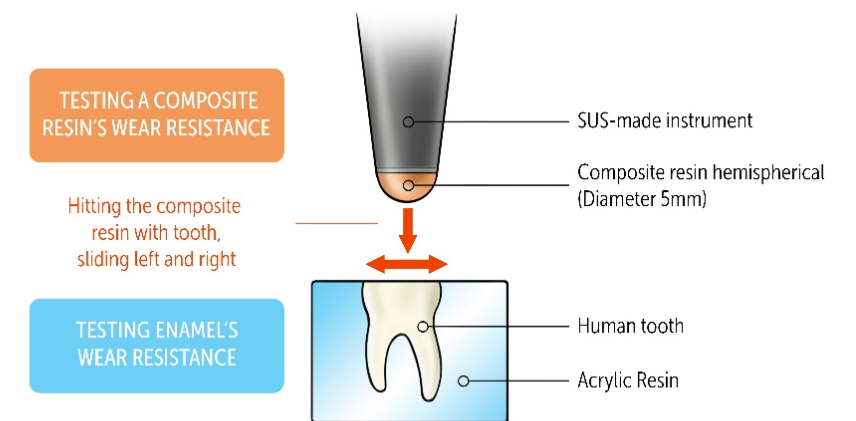
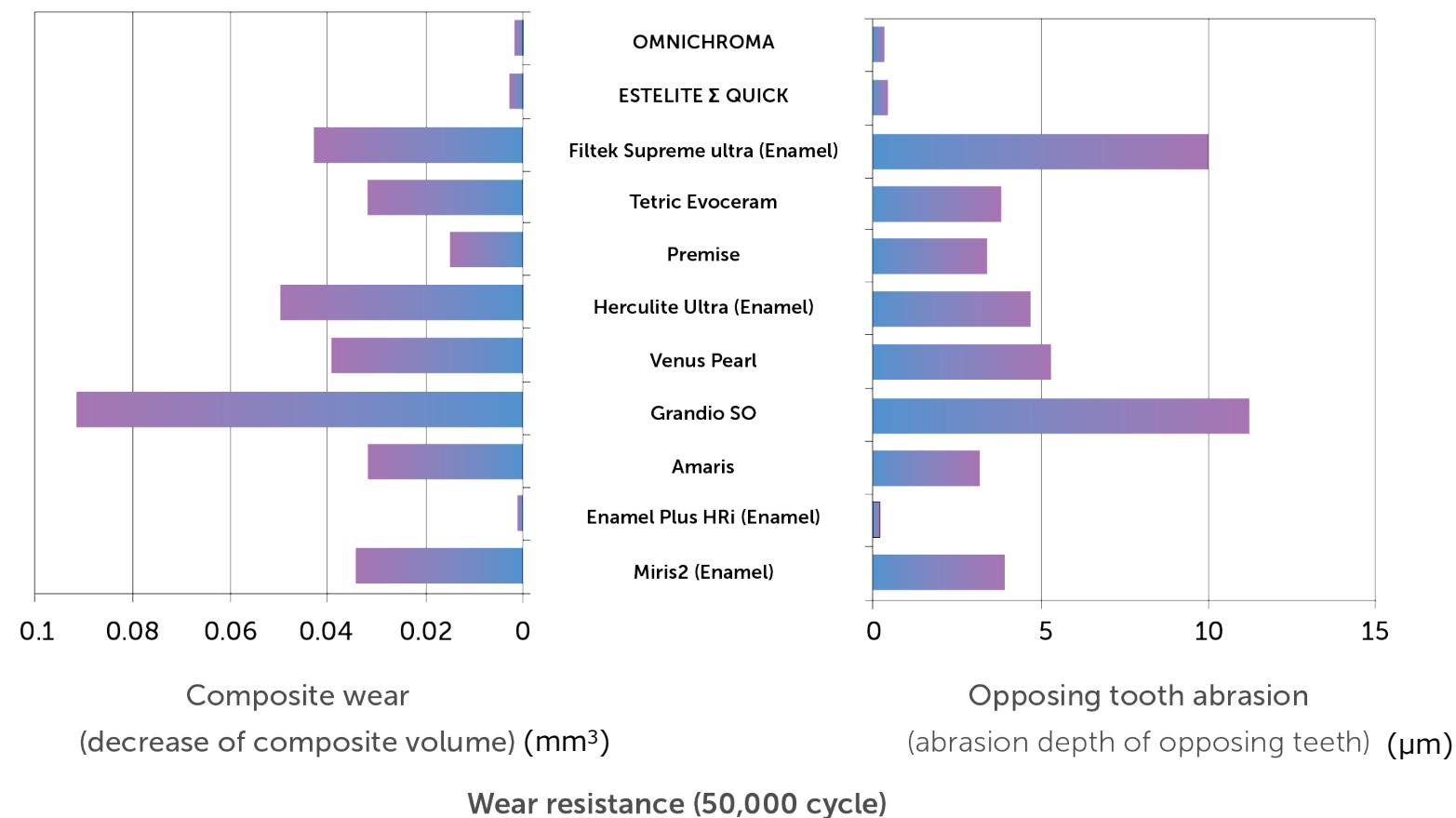


Compressive Strength (MPa)

Excellent Physical Properties

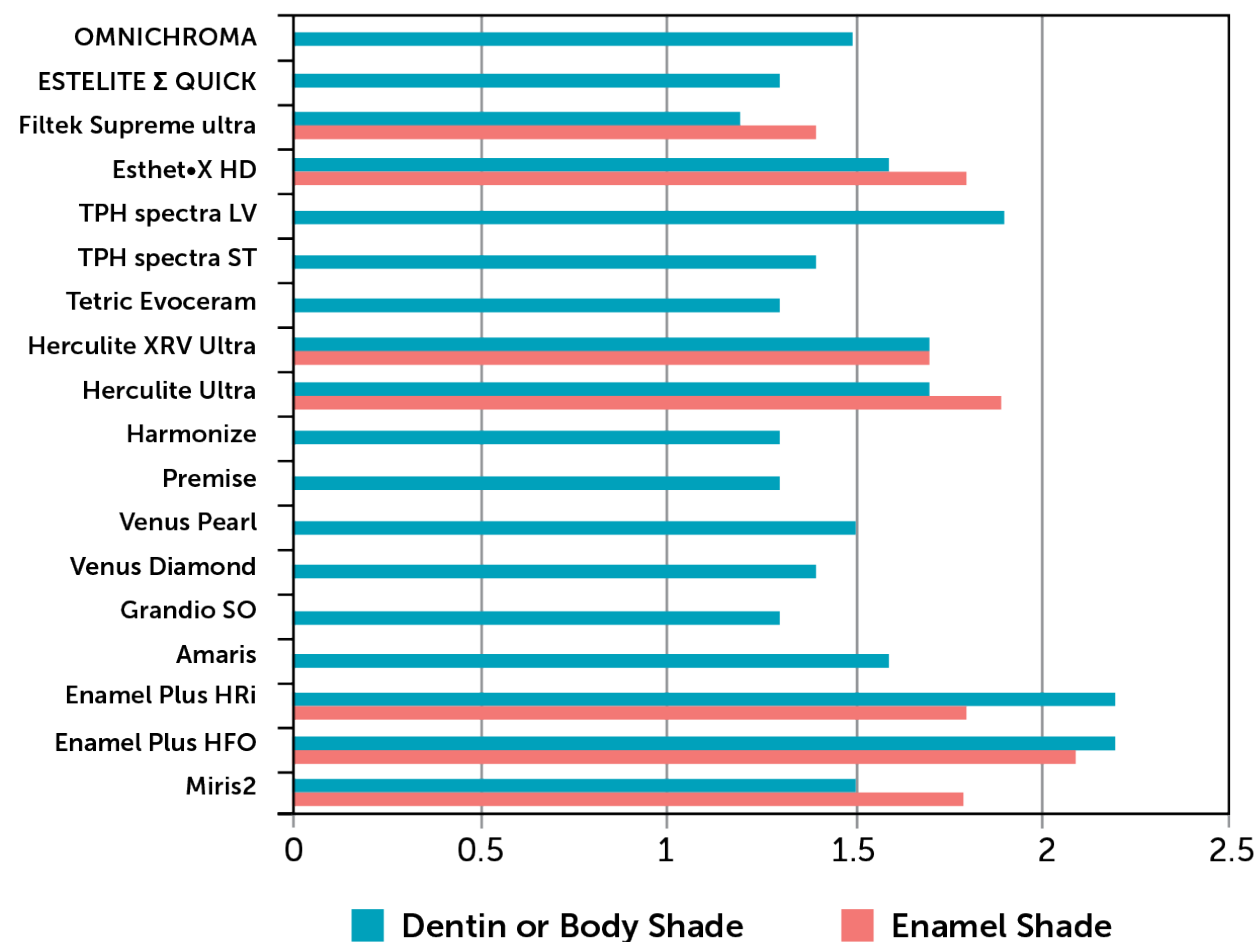
Lower Wear and Abrasion

OMNICHROMA exhibits an excellent balance between volume loss of the composite resin and wear of the human tooth. OMNICHROMA is a composite resin that is less likely to abrade opposing teeth while not easily becoming abraded itself, similar to ESTELITE SIGMA QUICK.



Excellent Physical Properties

Lower Shrinkage



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

Excellent Physical Properties

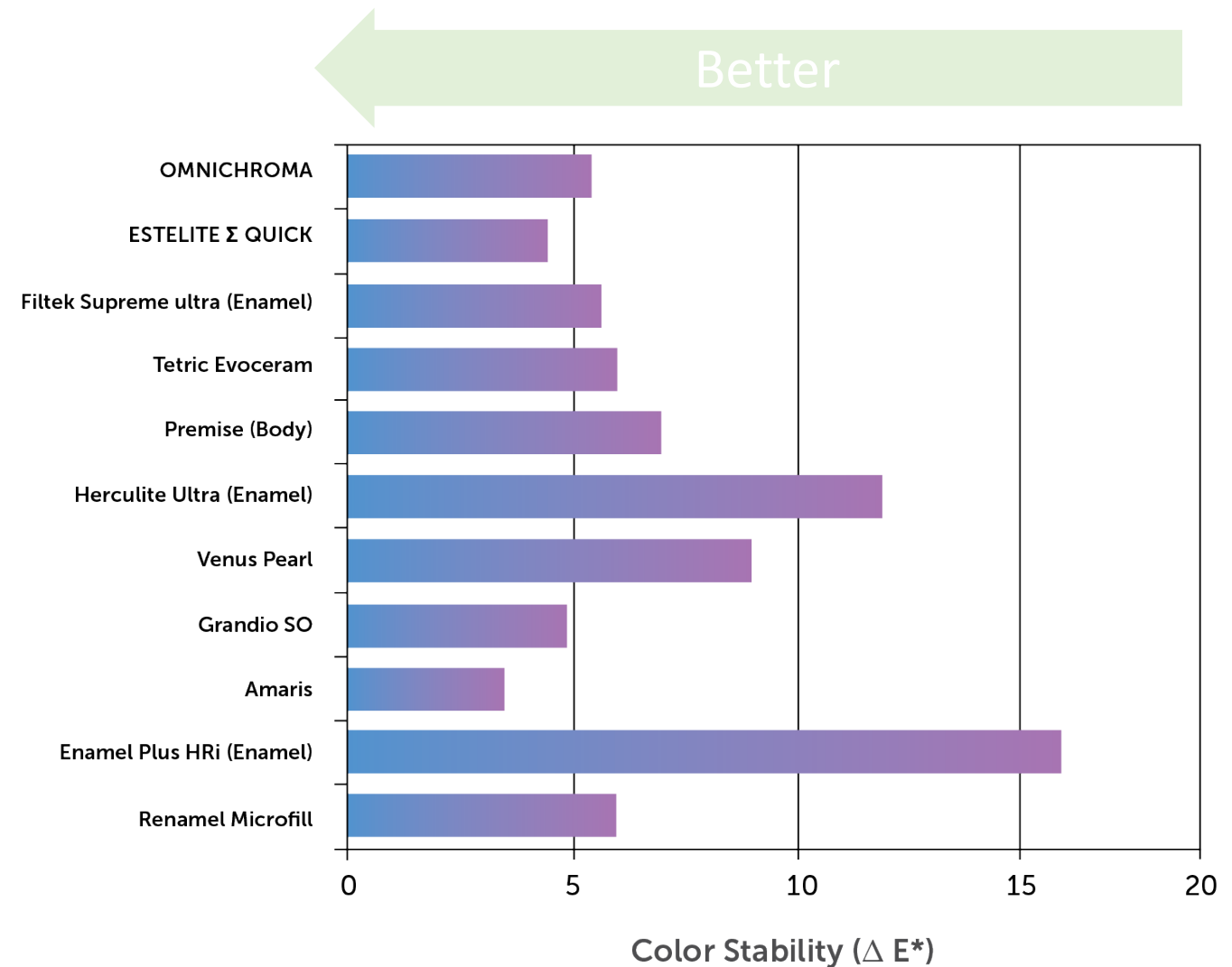
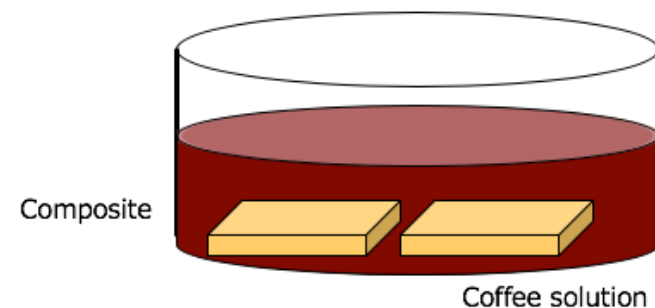
Staining Resistance (Color Stability)

The extent of staining for OMNICHROMA after soaking in coffee was relatively low among commercially available resin composites, meaning OMNICHROMA 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

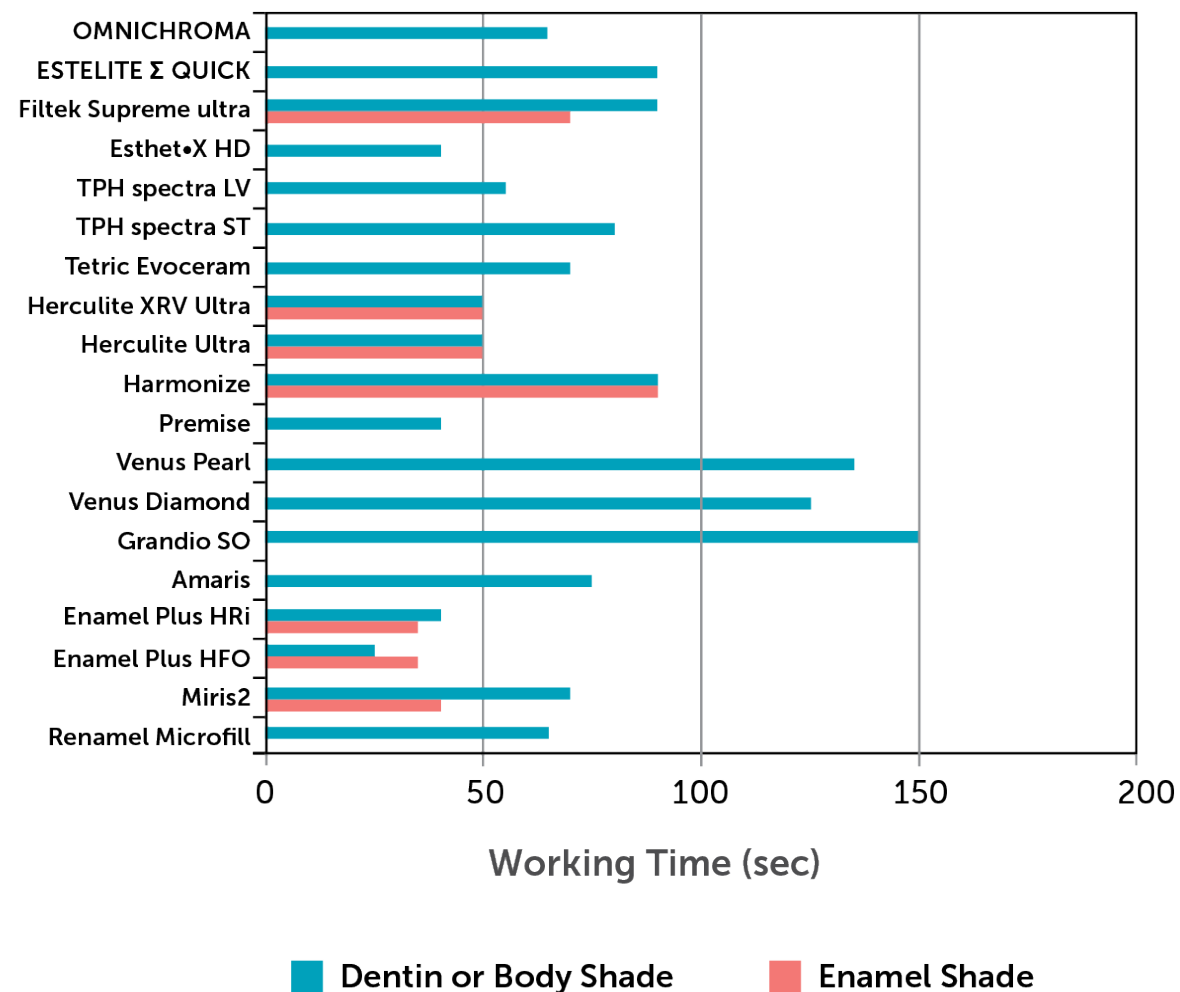
Color change (ΔE^*) between before and after was measured.



Excellent Physical Properties

Working Time

In accordance with ISO 4049



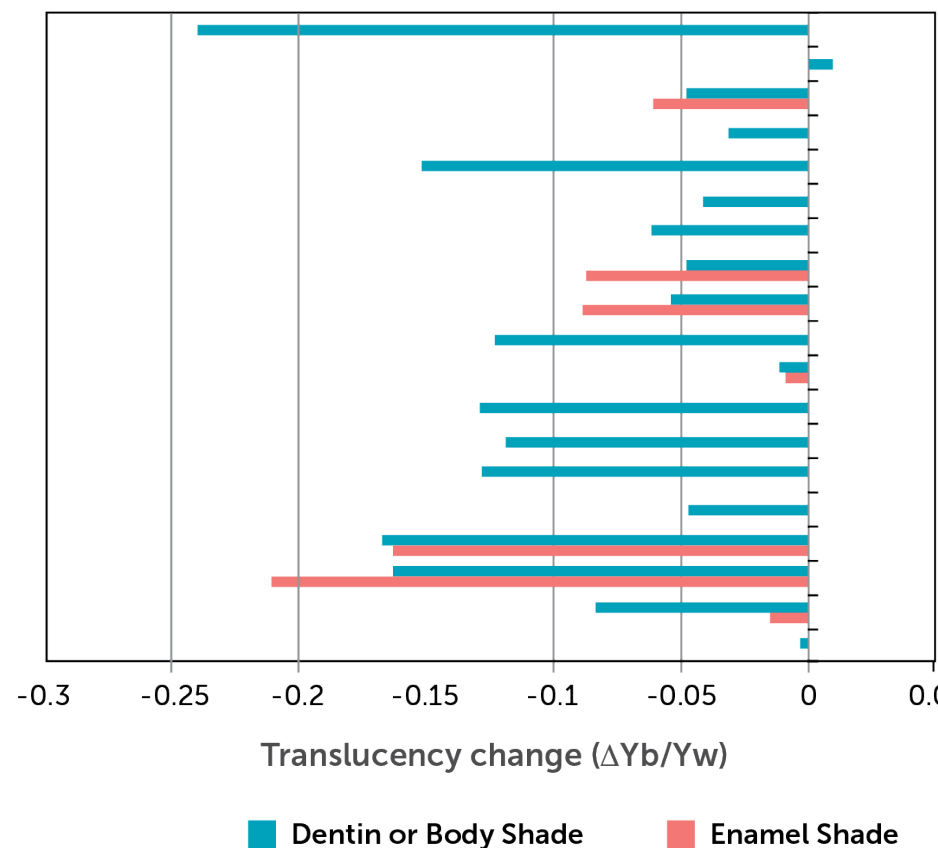
OMNICHROMA offers ample working time for almost all restorative procedures.

Excellent Physical Properties

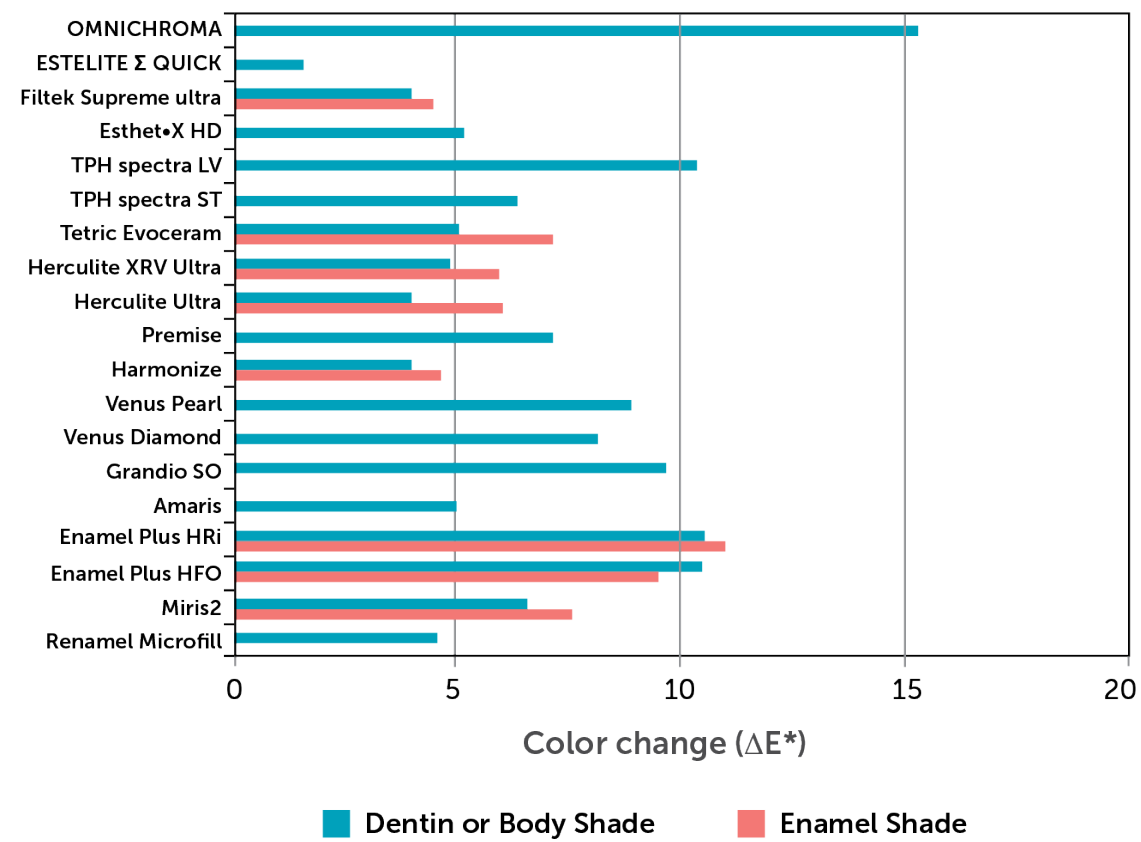
Polymerization

Typically, low results in color and translucency change are considered desirable traits. However, as OMNICHROMA is a single shade composite with wide shade-matching ability that appears opaque-white before curing, a large change in color and translucency is measured. Because of the nature of OMNICHROMA, this is a positive result.

Color and Translucency Change Before and After Polymerization



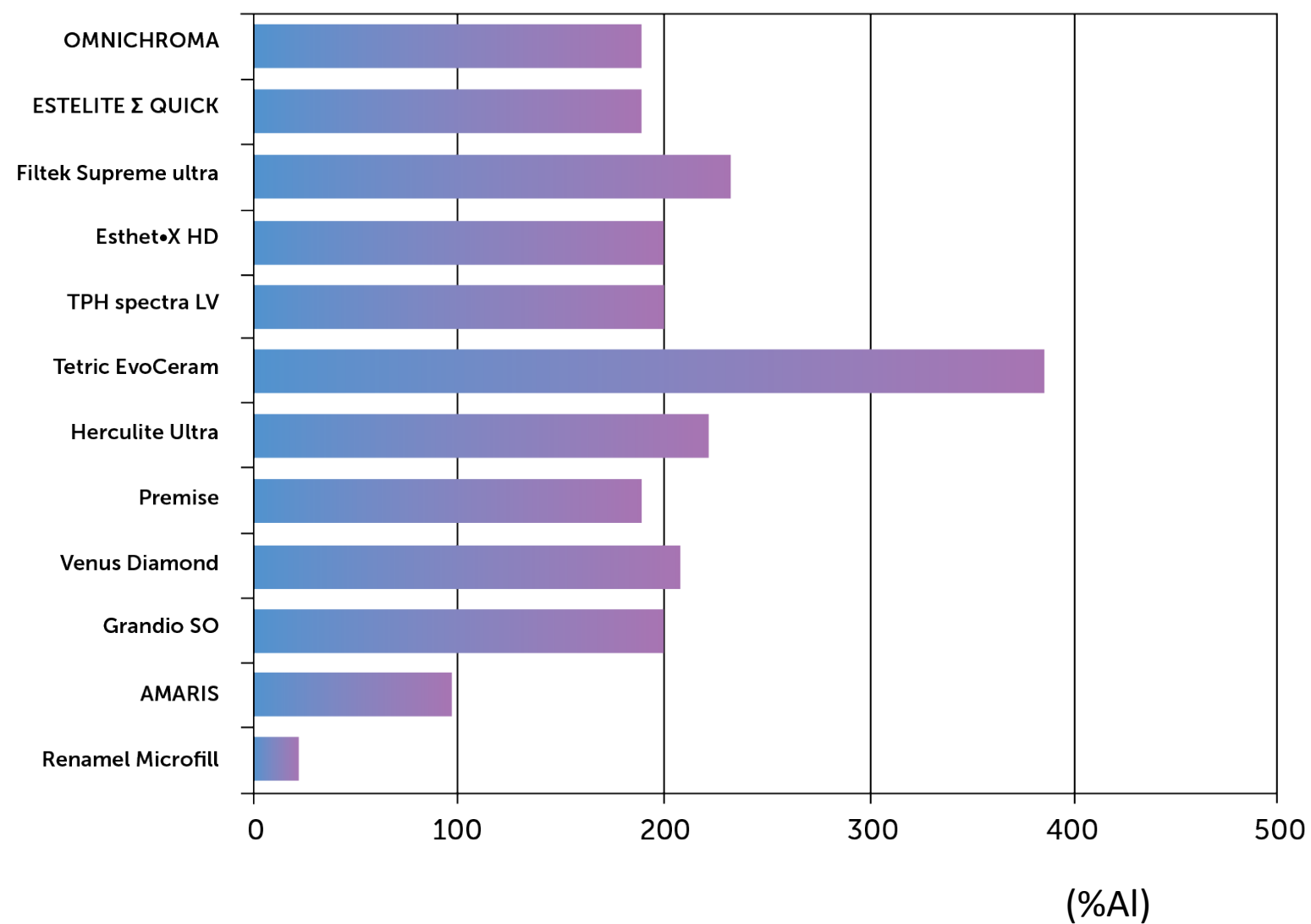
Change of translucency before and after polymerization



Change of color before and after polymerization

Excellent Physical Properties

Radiopacity



The radiopacity of OMNICHROMA is average and sufficient for prognosis observations.

OMNICHROMA

Pricing



\$99.99
4g



\$103.99
0.2gX20



omniCHROMA

Available Now!

