

TOKUYAMA DENTAL

Superior Shade-Matching

Tokuyama Dental's OMNICHROMA signals the first use of structural color in composite dentistry—resulting in one shade to match all patients

Tokuyama Dental has long been a leader in the evolution of dental composites. The company began researching its unique spherical filler technology over 35 years ago when a team of researchers discovered that supra-nano spherical filler particles improved both the mechanical and esthetic properties of resin composites. This scientific breakthrough is what gives Tokuyama Dental's well-known family of Estelite composites their superior strength and esthetics.

But the groundbreaking science doesn't stop at spherical fillers. When it comes to direct restorations, clinicians are accustomed to keeping multiple composite shades on deck to meet the needs of each unique patient. This is because most resin materials rely on added red and yellow dyes to achieve ideal tooth shades. Tokuyama Dental stumbled upon a different idea when researchers at its Tsukuba Research Laboratory in Japan realized that spherical fillers of particular sizes could create structural color.



The Science Behind the Shade

Enter OMNICHROMA—dentistry's first universal composite to match every smile with a single shade. In a process dubbed Smart Chromatic Technology, the composite's spherical filler particles generate red-to-yellow structural color, a unique phenomenon that occurs when different wavelengths of light are changed by a material's structure, reflecting and expressing colors that are different from the material itself. This red-to-yellow color combines with the color of the surrounding tooth, creating a seamless match.

"To produce a 1-shade composite system capable of matching all tooth shades is extremely forward-thinking," said Crystal Lake, IL, clinician Dr. Randy Halihan. "OMNICHROMA has been a reliable constant to treat almost every case universally without reaching for the shade guide or the spectrophotometer."

OMNICHROMA achieves a superior blending effect by including a narrow color range, which serves as the basis of what clinicians know as shades A1 to D4. Dr. Brian Gray from Washington, DC, who has used OMNICHROMA in numerous cases, described its effortless blending effect: "Prior to light curing, it looked the same in every restoration. After light curing, it disappeared and blended seamlessly, picking up the shade of the natural dentition."

OMNICHROMA completely eliminates the shade-matching process—saving clinicians time and money by reducing the number of composite shades that need to be stocked to just one.

OMNICHROMA IN ACTION



Preoperative image



Postoperative image—restoration completed with OMNICHROMA, OMNICHROMA BLOCKER, and white tint

Case images courtesy of Dr. Allan Mohr, Massapequa Park, NY