

TETRIC[®] FAMILY



Aesthetic Characterization: The Art of Direct Resin Restorations

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The detailed reproduction of the nuances of the human form is dependent not only upon the intricacies of anatomical configuration, but also on the precise utilization of color. As dentistry rapidly evolves from a technical profession to one of artistry, the understanding and meticulous use of color become more significant. Aesthetic dentistry has raised the standard of the dental profession to a degree in which basic universal shades are no longer sufficient for the fabrication of aesthetic direct resin restorations. The dentin and enamel layers of composite may not be predictably placed and manipulated to simulate ideal color in all situations unless specially designed pigmented resins are employed.

The accurate replication of intricately detailed color has historically been one of the most challenging aspects of performing a direct resin restoration.¹ The reproduction of pit/fissure staining, hypocalcification spots, enamel cracks, incisal translucency and halo, and other maverick colors requires a material with simple, accessible handling properties and natural color selection. The ideal resin characterization material would include easy dispensability with a flowable viscosity and a wide range of natural high-chroma shades. The material would also have the ability to be quickly mixed to produce custom colors, to be easily removed, and to be light-cured.

Diminished chroma and variable viscosity rendered previous characterizing resins laborious. High-viscosity tinted resins are difficult to place in precise amounts and proper location. In addition, their lack of flow results in uneven and inconsistent hues. Tints with a low chroma require additional

The clinical demands for new resin materials that accurately replicate nature have been driven by patients' desire for aesthetic metal-free restorations. The strategic use of color has become an integral portion of the aesthetic equation. Tetric[®] Color (Vivadent, Amherst, NY), a component of the Tetric family of Ceromer[™] materials, is specifically designed to enhance the characterization of direct resin restorations. The light-cured characterizing and shade-modifying resins facilitate easier, more predictable placement, natural colors, and a higher chroma than alternative materials. This article describes the utilization of the Tetric family in restoring teeth to a natural aesthetic appearance.



1. Preoperative view of amalgam restorations with recurrent decay and a large interproximal contact area.

layers of resin to achieve sufficient color. Proper dispensing of the material may be frustrating, often wasting large amounts of the resin.

Tetric[®] Color (Vivadent, Amherst, NY) was designed specifically to fulfill ideal requirements. The monomer base is Bis-GMA, urethane dimethacrylate, and triethylene glycol dimethacrylate. The filler material is a highly dispersed silanized silicon dioxide with additional stabilizers, catalysts, and pigments. Tetric Color is indicated for the simulation of natural and maverick colors in direct resin restorations, masking of discolored tooth structure, and characterization of laboratory-fabricated composite resin restorations, as well as provisional crown restorations and fixed partial dentures. Unique to this composite system is a dark brown resin that exhibits a slight reddish hue.

Tetric Ceram System Stratification

A stratified layering system may be utilized sequentially to predictably restore teeth to natural form and function.² By strategically combining layers of Tetric Flow, Tetric[®] Ceram[™] (Vivadent, Amherst, NY), and Tetric Color in the following layering sequence, restorations may be sculpted, resulting in enhanced aesthetics.

1. Tetric Flow—provides intimate adaptation between the hybrid layer and the initial dentin layer of composite. Elastomeric properties decrease stresses induced by polymerization shrinkage and prevent microgaps at the proximal gingival margin.³
2. Tetric Ceram—used for the successive incremental buildup of dentin layers and triangular edges to reduce intercuspal stress.⁴ Low value/high