



Resin-Based Light-Cured Posterior Composite Restorative
A Resin Based, Hybrid-type Visible Light Cured Composite
Restorative for Use Primarily in Class I and Class II Restorations

Contents: 25 X 0.35g Single Use Carpules

SHADE INFORMATION

Shade	Catalog Number	Lumin/Vacuum	Trubyte/Bioform
Light	50-501 CB	A1	51,59
Universal	50-502 CB	A2	65,66,67
Gray/Brown	50-503 CB	C3/D3	91,92,93
Yellow/Brown	50-504 CB	A3.5/B3	55,56,68

Properties of the Cured Restorative (Technical information required by American Dental Association revised Specification No. 27):

- Principal organic component of material: bis-GMA and aliphatic dimethacrylate resin blend
- Particle size of inorganic filler: 100% below 20 microns, 90% below 10 microns, 50% below 2 microns
- Volume % of filler in the restorative material: 66%

OUTSTANDING FEATURES OF THE MATERIAL

- Exceeds the requirements of the newest ADA and ISO specifications for composite restoratives.
- High filler content contributes to low shrinkage, low water sorption, low coefficient of thermal expansion and good wear resistance.
- Excellent X-ray opacity for future diagnosis.
- Very good polishability.
- Optimized consistency for ease of handling.
- Superior esthetics due to a well balanced opacity and availability of four shades.
- Outstanding color stability.
- Virtually non-existent oxygen inhibited layer.

Federal Law restricts this device to sale by or on the order of a dentist.

Quality Management System Certified to

ISO 9001 and ISO 13485

CE Marked Products

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6728 - P1/2

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CLINICAL PROCEDURES

Cavities are prepared in the conventional manner. In deep restorations, the use of calcium hydroxide base is recommended. Sealing of the dentin with cavity varnishes compatible with composite restoratives is recommended; best marginal integrity is achieved by etching the enamel surrounding the cavity and applying bonding agent prior to inserting the restorative paste.

Class I: Etch the enamel surrounding the cavity with enamel conditioner for one minute. Apply Bonding Agent over the enamel margins, and optionally, over the dentin and cure. Place restorative material with a tapping movement and cure in layers of 2-4mm deep, depending on the shade of the restorative and light intensity of the curing instrument.

A typical Class II restoration procedure consists of the following steps:

1. Tooth is pre-wedged on one or both sides depending on the eventual box form. The decayed dentin, as well as any previous restoration is removed.
2. The pulpal floor and axial walls are covered with base.
3. The margins are prepared by slightly beveling the occlusal surfaces and producing slight flares on interproximals. A 12-fluted finishing bur or fine finishing diamond is recommended.
4. The matrix band is placed (preferably 0.0015") followed by re-wedging. After the band is secured by the wedge, it should be loosened to allow for full contours when packing the restorative. The contact area is heavily burnished.
5. The enamel is etched, thoroughly rinsed and dried.
6. Bonding agent is applied over the etched enamel and, optionally, over the dentin and cured.
7. The restorative is inserted in box form to the height of pulpal floor and cured for 20 seconds. A small amount of bonding agent on instrument may facilitate placement.
8. The material is applied to the remaining preparation and cures in a manner described above.
9. Matrix band and wedge are removed and each interproximal area is cured for 20 seconds.
10. The restoration is finished in the conventional way.

Test	ADA/ISO Requirement	CuRAY-II Test Results
Ambient Light Sensitivity*	Material will show no signs of polymerization after exposure to 10000 lux light for 60 sec.	Pass
Depth of Cure*	>4.5 mm	5.5 mm
Flexural Strength*	S>N	S=120 MPa (17,400 PSI) N=91.6 MPa (13,300 PSI)
Water Sorption*	Less than 50 micrograms/mm ³	15.4 micrograms/mm ³
Water Solubility*	Less than 50 micrograms/mm ³	3.44 micrograms/mm ³
Shade*	Match color standard	Pass
Color Stability*	1mm sample disk will show no more than slight discoloration. Virtually no discoloration after exposure to 5000 K color, 10000 lux light source	
Radio Opacity*	Opacity of 1mm sample disk shall be greater than 2mm 99.5% pure aluminum plate.	Pass
Compressive Strength**	Not specified	273 MPa (39,600 PSI)
Tensile Strength */**	Not specified	39.7 MPa (5760 PSI)

* Following ADA/ISO specifications for test procedures.

** Test not required for certification; no minimum requirement is set.

STORAGE AND SHELF-LIFE

When stored at temperatures not exceeding 75°F (24°C), the material has a shelf-life of 2 years.