

# Functional - Esthetics



## DiamondLite™

Advanced Semi-Crystalline  
PolyCeram Nanotechnology

Key advantages include:

- Unrivalled Aesthetics
- Wear Resistance similar to Natural Tooth
- Ultimate Handling Characteristics

Indicated for:

- Class I, II, III & IV Restorations
- Aesthetic direct laminate veneers

Refill 20 x .25gr. Indi-Dose. **\$84.00**

Refill 5gr. Syringe **\$75.00**



## DiamondBond 001™

THE ULTIMATE IN BONDING

Single-Step, Self-Etch, Prime&Bond,  
Universal Adhesive System.

7th Generation Bonding

- Mimics the properties of natural tooth structure
- Delivers superior adhesion
- Less Post operative sensitivity



Kit

**\$215**

Conditioner 7cc

**\$49.95**

Universal Adhesive Base 7cc

**\$94.95**

Universal Adhesive Catalyst 7cc

**\$94.95**

## DiamondCrown™

The Elite of Dental Restoratives  
Spectacular Esthetics & Peak Performance

- Strong - Exceptional Fracture Resistance
- Tough - Shock Absorbing
- Ultimate Longevity - Cyclic Fatigue Resistant
- Wear Resistant - Similar to Natural Dentition
- Excellent Marginal Integrity
- Superb Color Stability & Accurate Shade Match
- Specular Reflectance - High Gloss & Luster Value
- Excellent Tissue Biocompatibility

For Unrivalled strength and cosmetic results this unique PolyCrystalline NanoCeram dental restorative and Prosthodontic material is formulated in: (99) Vita-Equivalent shades/colour

5gr Syringe Refill **\$89.95**



## DiamondFlow™

OUTSTANDING STRENGTH

Flowable PolyCrystalline

- Superb bonding integration for maximum adhesion
- Highly reinforced yet extremely flowable
- Unique controlled flowable technology
- Class V, Cervical Erosion, Tunnel preps, Block-out Material, Base, Liner



The Most Versatile Restorative!

Refill Syringe 5gr.

**\$75.95**

## DiamondLink™ 2 F/C

• Dual luting Cement can be used as a flowable Base Cavity Liner.

• Fast Cure Base Cement Super High Toughness (shock absorbing)

Master Kit **\$575.00**

Refill Kit **\$395.00**

Syringe Base 5gr

**\$75.00**

Catalyst 5gr (A2/B1/B3)

**\$75.00**



**DRM Restoratives combine microcrystalline PEX resin matrix and high purity organically bridged glass-ceramic nanofillers to provide a superior level of shock absorption, wear resistance, fracture toughness and diametral tensile strength. There is no Better Restorative Materials Available.**



**NEW**



## DiamondCrown™ DC-50

Single Step Direct Restorative

Anterior/Posterior Dental Filling Material - Class I, II, III, IV - (18) Colors: A1-D4(16), Neutral(1) & Incisal(1) Visible Light Cure(VLC), a DiamondCrown formulation in Mid-Range(OU-50) Opacity for Direct Fillings. This New Formulae offers Superior Handling/Manipulation Characteristics: Carving, Packing, Condensing and Anatomical Contouring, improved Polishability/Gloss Value and Surface Hardness. The Refractive Index of DC-50 provides for a simplified Single-Step (Universal) Core/Dentin/Enamel(All-in-One) Chairside placement coupled with improved properties.

5gr Syringe Refill **\$94.00**

## DiamondCrown™ Ceramo F/X Repair Kit

**NEW**

Chairside Universal Dental Ceramo/Metal Repair System for Ceramic, Porcelain, Metal, Composite & Acrylic Repairs - VLC & DC. Porcelain Fracture Repairs w/ or w/out Metal Exposure, Reinforced Ceramic Fracture Repair, Zirconia-Core Buildup, Composite Fracture Repairs and Augmentation & Acrylic Repairs. This Novel Formulation allows for Restoration, Reconstruction & Rehabilitation of the most Optimal Stratification of Tri-Dimensional Esthetics - Opacity/Translucency(Value/Refractive Index), Chroma(Color/Shade) & Hue(Tint) coupled with Superior Functional-Performance and Ultimate Bond-Strength to Porcelain/Ceramic/Alloy/Composite/Acrylic - Interfaces.

The Ultimate Office Repair Kit **ONLY \$795.00**



# RESTORATIVES



In terms of Strength, Flexibility, Shrinkage, Wear & Biocompatibility there is **NO BETTER**

## RESTORATIVE MATERIALS AVAILABLE!

### DiamondCrown™ - direct/indirect restorations



Indicated for direct restorations and indirect prosthodontic applications such as crown, bridge, inlays, onlays and veneers as well as implant suprastructure. The light cured nature of the entire range means that adding to material chairside is simple and set up costs to laboratories are minimal. Patented liquid crystal technology and a PEX resin based matrix properties are microcrystalline making DiamondCrown™ both macro rigid and micro elastic. This eliminates

the problems inherent with Bis-GMA or UDMA amorphous and brittle resins. With the same wear rate and hardness as human enamel, low water sorption and shrinkage rates, and enhanced diametral tensile strength DiamondCrown™ is the closest thing to tooth available to date. A highly biocompatible nonmetallic dental restorative material and an advanced bonding system that actually makes Polypeptides link to dentin. The DiamondCrown™ MasterKit incorporates DiamondBond 001 to ensure premium results every time.

ChairSide Master Kit **ONLY \$875.<sup>95</sup>** Refill 5gr. Syringe **\$89.<sup>50</sup>**

For unrivalled cosmetic results this unique Microcrystalline Nanohybrid PolyCeramic dental restorative material is available in 16 Vita shades plus various incisal effects and characterization stains. There are also 9 opacity level/gradient ranging from 'metal opaques' (opacity units = 100) through to 'Incisal transparent' (opacity units = 5).



The tooth pictured above was made entirely from the revolutionary liquid crystal based DiamondCrown™ Polyceramic material

- ◆ Strong and Tough
- ◆ Shock Absorbing
- ◆ Wear Resistant
- ◆ Kind to Natural Tooth
- ◆ High Lustre/Gloss Value
- ◆ Superior Aesthetics
- ◆ Superhydrophobic (Colour Stable)
- ◆ Excellent Biocompatibility



Intra-Oral Post-Op. - Superb Aesthetic Vitality and Tissue Compatibility. Note: Lack of Plaque Adhesion and Excellent Gival Tissue Response

| PROPERTY  | DIAMOND CROWN     | ADA/ISO Criteria | Tooth Enamel/Dentin | Gold      | Porcelain       |
|---|-------------------|------------------|---------------------|-----------|-----------------|
| Diametral Tensile Strength (MPa)                        | 79                | 34               | 70                  | N/A       | 35              |
| Biaxial Flexural Strength (MPa)                         | 231               | 52               | 145                 | 186       | 68              |
| Compressive Strength (MPa)                              | 552               | N/A              | 393/290             | 166       | 379             |
| Fracture Toughness (Kicsr) (MPa m <sup>1/2</sup> )      | 2.2               | N/A              | 1.7                 | 2.2       | 0.5             |
| Cyclic Fatigue Resistance: 5Hz, 5,000,000 cycles, 800 N | Y                 | -----            | -----               | Y         | N               |
| Catastrophic Strength                                   | > 4,000           | -----            | 200/800, < 1,500    | < 2,000   | < 1,000         |
| OCA - Occlusal Contact Area (N-Newtons) (MPa)           | > 500             | -----            | 9 /31-41 A/P <145   | < 200     | < 70            |
| Bond Strength (MPa) / (Alloy-substrate)                 | 35                | -----            | -----               | -----     | 12-17 PFM       |
| Wear Resistance (µm/year)                               | 3                 | 50               | 3-5                 | 3-5       | " wears tooth " |
| Water Sorption (%wt.) (µg/cm <sup>3</sup> )             | 0.25              | 0.70             | N/A                 | N/A       | N/A             |
| Polymerization Shrinkage (% linear)                     | 0.20              | N/A              | -----               | 1.56      | 17              |
| Linear Coefficient Thermal Expansion                    | 15                | N/A              | 11.4                | 14.2      | 14              |
| LCTE - (ppm) (mm/mm/°C x 10 <sup>-6</sup> )             | 3                 | N/A              | 5                   | 15        | 15              |
| Ra - Profilometry: Average Surface Roughness (nm)       | 110               | 60               | 210/80              | 80        | 475             |
| VHN Surface Hardness @ 3mm                              | 5.5               | 2.0              | N/A                 | N/A       | N/A             |
| Depth of Cure (mm)                                      | Excellent         | Moderate         | -----               | Excellent | Moderate        |
| Biocompatibility  | 0                 | 40               | -----               | 0         | 25              |
| Cytotoxicity (%)  | Very Good         | N/A              | Very Good           | Very Good | " N/A-Glazed "  |
| Polishability   | 92 Vita           | N/A              | -----               | 1         | Vita            |
| Shades (Vita)   | 0.25-0.60 µm      | N/A              | -----               | N/A       | N/A             |
| Particle Size   | (+) 7 nm          | 50.0             | -----               | -----     | -----           |
| Microns (µm), Nano (nm)                                 | 80.0              | 30.0             | -----               | -----     | -----           |
| Filler Weight (%), Fw                                   | 74.0              | N/A              | -----               | -----     | -----           |
| Filler Volume (%), V <sub>f</sub>                       | Crystalline - PEX | N/A              | Crystalline - HA    | -----     | -----           |
| Resin / Matrix  |                   |                  |                     |           |                 |

### DiamondLite™ - direct restorations



The clinician looking for a cost effective, simple to use, alternative without sacrificing the exceptional strength and resilience of PEX based Diamond products. Light-cured and available in 16 optimized Vita shades: A1, A2, A3, A3.5, A4, B1, B2, B3, B4, C1, C2, C3, C4, D2, D3, D4 and 4 SuperBrite colors: XL, L, M, OPQ

- ◆ High Strength
- ◆ Low Shrinkage
- ◆ Low Water Sorption
- ◆ Low Cost



Master Kit Syringe **ONLY \$575.<sup>95</sup>** Master Kit Indi-Dose **\$675.<sup>00</sup>**  
 Refill 5gr. Syringe **\$75.<sup>00</sup>** Refill 20 x .25gr. Indi-Dose. **\$84.<sup>00</sup>**

# RESTORATIVES



## DiamondLink™ 2 Fast Cure - flowable Polyceram and Luting cement



Post-Op.: 3 Unit DiamondCrown Posterior Bridge, Alloyless-Fiberless-Flawless Biomechanics. A Balance of Microelasticity and Macrorigidity. DiamondBond-Link Adhesive Interfaced

### PROPERTIES

|   |  |
|---|--|
| Macrorigid/Microelastic; stress-dissipating interface | Frac. Toughness 1.6 MPa•m <sup>1/2</sup> |
| Injectible luer-lock dispensing delivery system       | Yes                                      |
| Biocompatible and non cytotoxic                       | Index Reactivity 0                       |
| Degradation/Solubility                                | Superhydrophobic                         |
| High-Fracture Resistance:                             |  |
| Diametral Tensile/Flex. Strength psi (MPa)            | 8,555/21,025 (59/145)                    |

|                           |  |
|---------------------------|--|
| High Marginal Integrity   | .065% Linear Shrinkage   |
| Esthétique                | Available in Vita. Equivalent shades: Trans. B1, Natural A2, Yellow B3 (tooth-like refractive index) |
| Radiopaque                | Yes  |
| Light, Auto, or Dual-cure | Light, Auto, or Dual-cure  |
| Ideal Film thickness      | 13µm   |

- Master Kit **ONLY \$575.00**
- Refill Kit **\$395.00**
- Syringe Base 5gr **\$75.00**
- Catalyst 5gr (A2/B1/B3) **\$75.00**

- ◆ Luting Cement: C/B, I/O, L, pins, posts, brackets, splits, implant suprastructure
- ◆ Pit/Fissure Sealant
- ◆ Class V Cervical Erosion site restorative
- ◆ Universal-Link; Composite, Acrylic, Metal, Enamel, Dentin



Occlusal Surface Intrinsic-Stain characterized. Simulated Developmental Anatomy. Enamel-Like Wear Resistance

## DiamondBond™ 001 - 7<sup>th</sup> Generation bonding system



DiamondBond 001 creates durable adhesion with enamel, dentin, porcelain and metals. Can be used with direct fillings of C&B applications and will bond with dry or moist dentin in an equally effective manner. Ultra-fine film thickness allows maximum bond strength with high resistance to fracture.

- ◆ Triple Action Bonding
- ◆ Shock Absorbing
- ◆ Proven Longevity
- ◆ Biocompatible

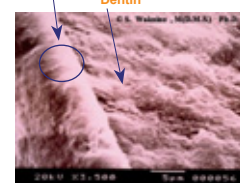
Ideal with DiamondCrown, DiamondLite, and DiamondLink

This highly biocompatible 7th generation universal bonding system consists of:

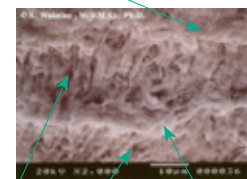
- A. DiamondBond Conditioner 7cc, DiamondBond 001 Light Cure Adhesive 7cc and for optional use a Dual Cure Activator 7cc. DiamondBond forms a biochemical as well as physical bond with dentin.
- B. DiamondBond 001 also contains HEMA – a hydrophillic monomer which allows proper wettability and penetration of dentin tubules to assure bonding in a moist environment.
- C. The crystalline structure of the DiamondBond 001's PEX adhesive resin, gives a high fracture toughness (shock absorbing character) to the bonding layer that virtually eliminates microcrazing and delamination resultant from cyclic masticatory fatigue. This unique chemistry helps form a permanent seal that reduces post-op. sensitivity. Hybridized interface, a barrier to microgap formation and microbial invasion.

- DiamondBond 001 Kit **ONLY \$215.00**
- Conditioner 7cc **\$49.95**
- Universal One Step Adhesive Base 7cc **\$94.95**
- Universal Dual Cure Adhesive Catalyst 7cc **\$94.95**

DB-001 total adhesive thickness ~ 5µm interface. marginal integrity = thin, tough, microgap-free



DB 001 - PEX / HEMA adhesive interface



DB-001 - synthetic dentin collagen zone

## Comparative Analysis-Dental Bonding Systems

| Brand Name                                | Diamond Bond 001 (7th Generation) | Single Bond | Prime & Bond   | Syntac  | Tenure Quick | One Step | Optibond Solo |
|---|-----------------------------------|-------------|----------------|---------|--------------|----------|---------------|
| Manufacturer                              | DRM                               | 3M          | Dentsply Caulk | Ivoclar | Denmat       | Bisco    | Kerr          |
| <b>BOND STRENGTH (MPa)</b>                |                                   |             |                |         |              |          |               |
| Dentin                                    | 37                                | 15          | 18             | 16      | 20           | 20       | 19            |
| Enamel                                    | 27                                | 27          | 24             | 22      | 28           | 28       | 23            |
| Porcelain                                 | 30                                | 17          | 17             | 14      | 19           | 19       | 17            |
| Precious Alloys                           | 23                                | 6           | 5              | 8       | 10           | 10       | 6             |
| Composite                                 | 34                                | 18          | 14             | 10      | 20           | 22       | 18            |
| <b>OTHER PROPERTIES</b>                   |                                   |             |                |         |              |          |               |
| Film Thickness                            | 5                                 | 35          | 10             | 10      | 25           | 20       | 10            |
| Shrinkage (Linear %)                      | 1.0                               | 3.0         | 3.1            | 3.1     | 4.5          | 3.7      | 2.7           |
| Fracture Toughness                        | 1.6                               | 0.9         | 0.8            | 0.7     | 0.6          | 0.6      | 0.85          |
| <b>COMPONENTS</b>                         |                                   |             |                |         |              |          |               |
| Resin Type A = Amorphous<br>C=Crystalline | C                                 | A           | A              | A       | A            | A        | A             |
| Synthetic Collagen                        | Yes                               | No          | No             | No      | No           | No       | No            |

## DIAMONDCROWN™ FOTOKUR™ F/X™ CURE BOOTH

Recommended for DiamondCrown™ Chairside and DiamondCrown™ Laboratory Systems.  
 Digital Readout Display (seconds/minutes)  
 Cycle indicator, Automated turntable, reflector / vented chamber, air cooled 300 mW Power, 500 mW/cm<sup>2</sup>, 400-550 nm, < 60 C / 140 F degrees internal chamber temperature throughout cure cycle.

**ONLY \$1,195.00**



EL830V12

## DIAMONDCROWN™ THERMOKUR™ F/X™

Recommended for DiamondCrown™ Laboratory Systems.  
 Digital readout display (seconds, minutes).  
 Cycle / Phase select indicator, semi-automated microprocessor programmable, adjustable time / temperature settings.

**ONLY \$1,795.00**



EL840V12

## DiamondCrown™ Lab Grand Master Kit



Crown & Bridge, Inlay / Onlay, Laminate-Veneers & Implant Superstructure Dental. Restorative-Reconstructive PolyCrystalline NanoCeram Prosthodontic System Visible Light Cure.

The advantage of using DiamondCrown for indirect applications is multifold. They include:

- High fracture toughness, Ultimate wear resistance with unparalleled shock absorption.
- Breakthrough metal coupling the produces a stable bond to Nickel - Chrome - Gold - Zirconium - Titanium & non precious alloys.
- Easy intra oral augmentation with a high bond strength of 27MPa.
- Immediate loading of implant crowns, it's shape memory and anti-slumping properties make DiamondCrown easy to model, carve, shape and contour. It's high purity catalysis makes DiamondCrown shades highly accurate with superb colour stability.

### CONTENTS:

- 67 - 5.0 grams ea. Syringe, total of 335.0 grams paste. Vita Equivalent Colors / Shades;
- 15 - Core Opaque Dentins: A1,A2,A3,A3.5,A4,B1,B2,B3,B4,C1,C2,C3,C4,D2, D3.
- 16 - Dentins: A1,A2,A3,A3.5,A4,B1,B2,B3,B4,C1,C2,C3,C4,D2,D3,D4
- 16 - Enamels: A1,A2,A3,A3.5,A4,B1,B2,B3,B4,C1,C2,C3,C4,D2,D3,D4
- 6 - Incisals: Clear, Transparent, L. Grey, L. Violet, L. Pink, White.
- 4 - Dentin Chroma Modifiers: A, B, C, D.
- 10 - Dentin Intensifiers: Ruby Red, Ultramarine-Blue, Canary-Yellow, Clay-Brown, Orange, Rust, Violet -Grey, Peach, Mustard, White.
- 17 - 7.5 g. ea. Metal Opaque Powders; OA1,OA2,OA3,OA3.5,OA4,OB1,OB2,OB3,OB4, OC1,OC2,OC3,OC4,OD2,OD3,OD4, O Neutral.

### Allows Optimum Aesthetic Possibilities!

- 2 - 7 cc. Metal Opaque Liquid
- 2 - 3 cc. Metal Coupler
- 1 - 7 cc. Ceramo-Coupler
- 1 - 7.5 cc. Die Separator Release Agent (Jar)
- 1 - 7.5 cc. Rubber Separator (Jar)
- 2 - 3 cc Modeling Liquid
- 2 - 3 cc Stain Characterizing Agents; (1) Yellow, (1) Brown.
- 1 - Glaze Dual Cure (Liquid-7cc. / Resin-3cc.)
- 8 - Brush Holders
- 2 - Disposable Brush Tips (50/pk.)
- 4 - Disposable Wells (12 Cavities ea.)
- 2 - Disposable Luer Lock Needles (10/pk.)
- 2 - 3cc. Conditioning / Compound Gel
- 2 - DiamondLite Polishing Discs-Violet Felt -10/pk.
- 2 - DiamondCrown Burnishing Discs-Grey Paper-(10/pk.)
- 1 - 7.5 cc. DiamondLite Polishing Paste
- 2 - Stainless Steel Polishing Disc Mandrel
- 1 - DRM Stainless Placement Instrument - DC1; Carver / Packer (Sterilizable / Autoclavable).
- 1 - DRM Stainless Steel Spatula - CS # 324
- 1 - DiamondCrown Fine Cut Carbide
- 1 - DiamondCrown Ti-Nitrite Coated Carbide
- 2 - Soft White Silicone knife - edge wheel
- 1 - Mandrel, 34 mm - SHP.
- 1 - Soft Pink Silicone - mounted polishing wheel.
- 1 - Nylon Bristle brush
- 2 - Soft White Bristle brush # 11.
- 1 - Cotton Buff - 22 mm mandrel mounted.
- 1 - 3.0 g. DiamondFine polishing compound.

Kit **ONLY \$6,995.00**

### Achieve Final Results Closer to Natural Tooth than Anything else....

