



# DIAMONDBOND 001™

## 7TH GENERATION BONDING



Mimics the properties of Natural Tooth Structure



Delivers long lasting superior adhesion



Marginal Integrity: Thin, Tough, Microgap Free



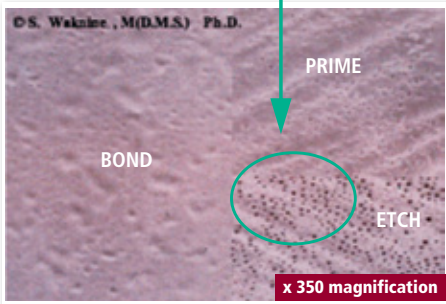
Total Adhesive Thickness: 5µm interface



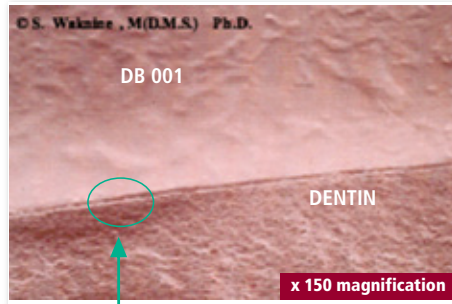
Less Post Operative Sensitivity



DB001 - Conditioning yields 2µm uniform Tubuli openings maintaining Intra & Inter-Tubular Dentin Structure intact



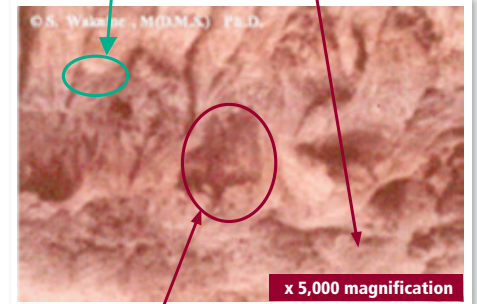
DB 001 - Salicylic Lactic conditioning, synthetic Collagen priming, PEX-HEMA adhesive coating



Uniform 5µm Layer

DB 001- Synthetic Collagen Fibrils

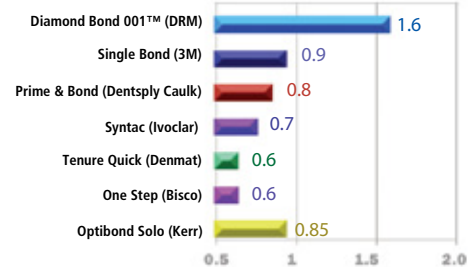
Natural Tooth Collagen



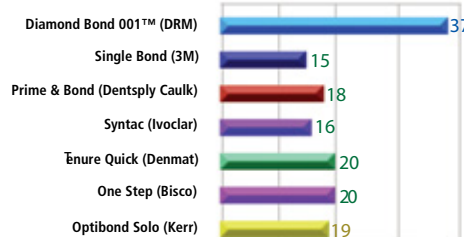
DB 001 - Polypeptide Interfacial Linkage

## SUPERIOR STRENGTH

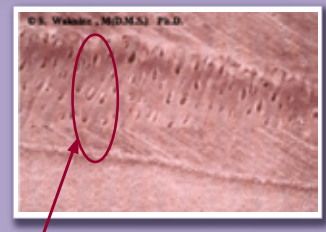
### FRACTURE TOUGHNESS



### BOND STRENGTH (MPa) - Dentin

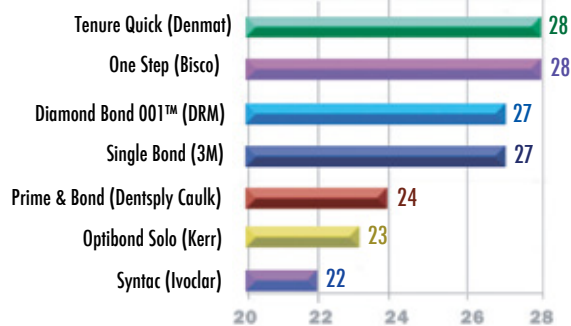


DB 001 Salicylic-lactic conditioning ensures uniform dilution for maximum adhesive depth up to 70 microns, ensuring the elimination of microleakage and premature failure

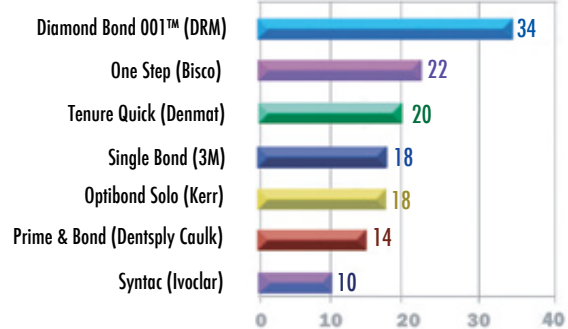


70 µm microinfiltration of DB 001 into dentinal tubuli

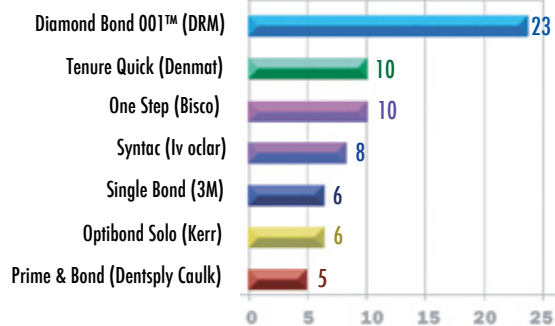
### BOND STRENGTH (MPa) - Enamel



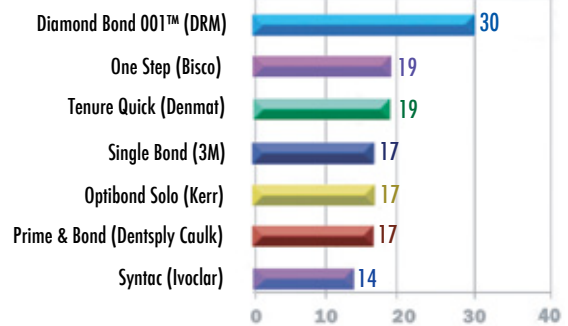
### BOND STRENGTH (MPa) - Composite



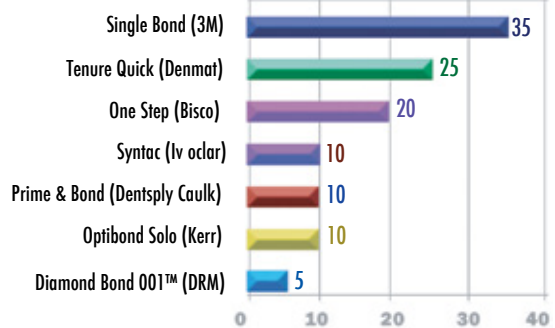
### BOND STRENGTH (MPa) - Precious Alloys



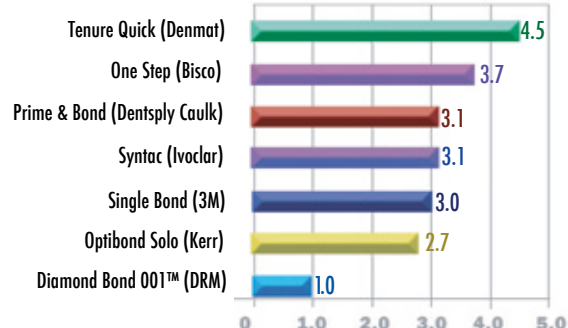
### BOND STRENGTH (MPa) - Porcelain



### Film Thickness (Microns)



### Shrinkage (Linear %)



## DiamondBond 001 Kit

### DB250K

#### Kit Contents:

- 1 - 7cc vials of Conditioner,
- 2 - 7cc vials of Universal Adhesive Resin, (1) Catalyst & (1) Base \*\*Trifunctional\*\*,
- Catalyst + Base = Auto-Cure & Visible Light Cure, Base - Visible Light Cure only,
- 50 - Disposable Brush Tips,
- 3 - Brush Holders, 2 - (12) Cavity Disposable Wells



## DiamondBond001™ Refills

- DB251 **DiamondBond 001 Conditioner** 7cc
- DB252 **DiamondBond 001 Universal Adhesive Base - VLC** 7 cc
- DB253 **DiamondBond 001 Universal Adhesive Catalyst - Auto** 7 cc
- DB212 **Brush Tips** 50/Bag
- DB213 **Brush Holders** 3/pkg
- DB214 **Disposable Wells** 2/pkg



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 TEL: (203)488-5555, TOLL FREE: (888)DRM-BOND [376-2663], FAX: (203)488-2821  
 E-mail [drmbond@drmco.com](mailto:drmbond@drmco.com) or visit our website [www.drmco.com](http://www.drmco.com)  
 P.O. Box 408, Branford, Connecticut 06405 USA





# DIAMONDLITE™



## THE MOST ADVANCED PATENTED FORMULA

*Advanced Semi-Crystalline PolyCeram Nanotechnology*



*Dental Restorative*

**Recommended for:**

- Class I, II, III, IV, V Restorations
- Aesthetic Direct Laminate Veneers

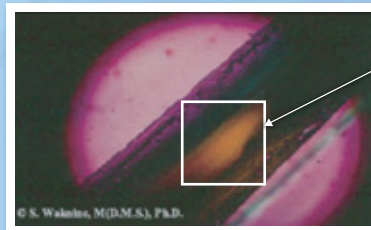


## OPTIMUM PERFORMANCE

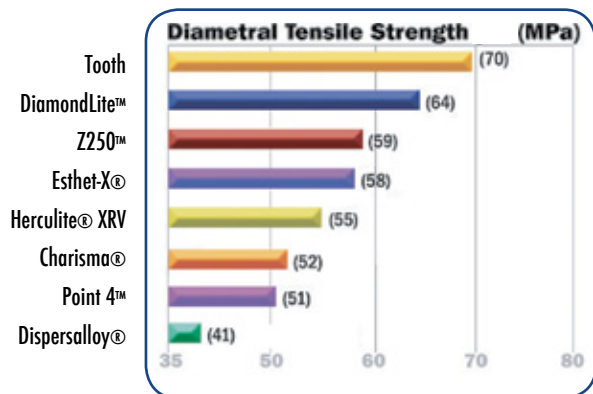
Amorphous  
Glassy Polymer



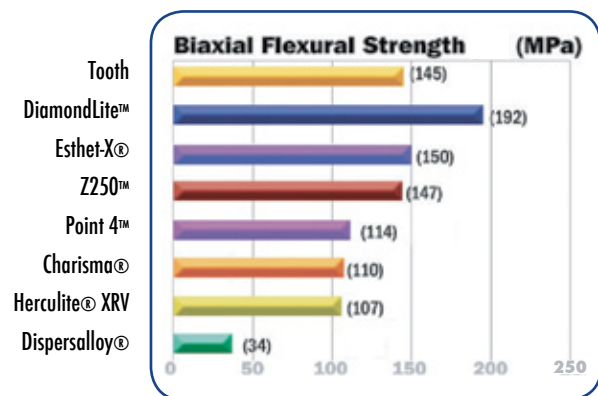
SemiCrystalline Polymer  
(prismatic effect)



© S. Walsh, M.D.M.S., Ph.D.



A trivectoral measurement clinically significant because chewing involves three vectors of force Compressive strength, Shear strength, & Tensile strength (profile strength)

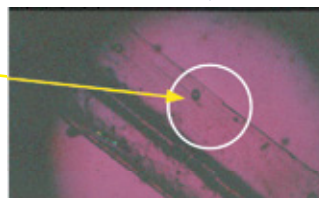


Important in assessing fracture resistance, 3-point bend/transverse strength

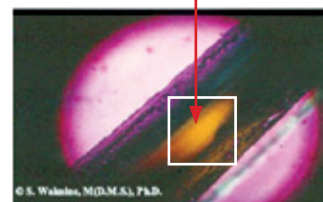
## Advantages of using DiamondLite for Direct Applications:

- PolyCrystalline PEX Matrix, **Masticatory Cyclic Fatigue Resistant**, **High Fracture Toughness**
- NanoCeram reinforcing phase, Oligomer particulate interface, **Shock Absorbing**, **Ultimate Wear Resistance**
- Unique particulate morphology, **Ultimate Reinforcement** and **Handling Characteristics**
- Thixotropy (shape-memory, anti-slumping properties) **Easy to Model, Carve, Shape and Anatomically Contour**
- High Purity Catalysis, **Superb Color Stability** and **Accurate Shade Match**
- Super-Hydrophobic Character, absence of solubility & negligible sorption, providing for **Ultimate Longevity**
- Very low shrinkage (0.5 linear) guarantees **Excellent Marginal Fit**.
- Crystalline Matrix allows for key advantages, including;
  - Toughness and Low Shrinkage
  - Refractive Index, Chameleon-like Effect
  - Specular Reflectance, Gloss & Luster Value
  - Wear Resistance similar to Natural Tooth
  - Biocompatible and non-Cytotoxic

Amorphous  
Glassy Polymer



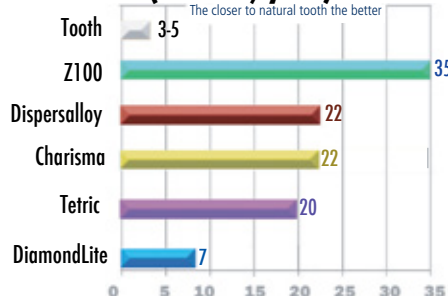
SemiCrystalline Polymer (prismatic effect)



**DiamondLite** is formulated in (16) Vita-equivalent shades/color, A1-D4 and (4) SuperBrite colors - XL, L, M, OP - Neutral B1 shades units of opacity - 20-35-50-80, available in Syringe and Indi-Dose cartriple delivery systems.

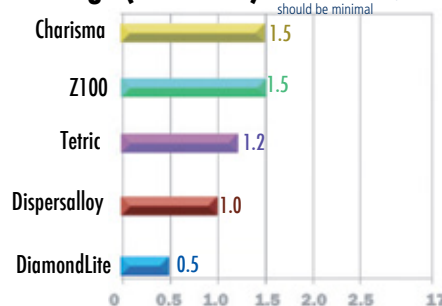


## Wear Resistance (microns/year)



## Shrinkage (0% linear)

Dimensional change occurring in transformation from liquid to solid phase: should be minimal.



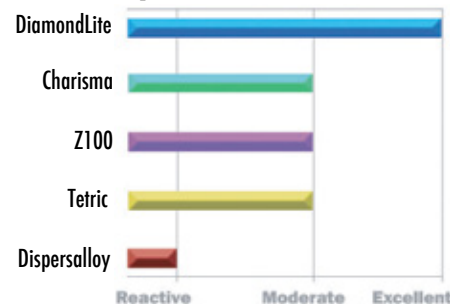
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E-mail drmbond@drmco.com or visit our website www.drmco.com  
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# BIOCOMPATIBLE & NON CYTOTOXIC!

For Fibroblast Cell Toxicity, MEM (minimal essential medium) Elution, Human Blood Hemolysis, implant-Intramuscular Reactivity, Intracutaneous Reactivity Extract, and Systemic Injection Extracts, all Diamond restorative products scored zero, making their Biocompatibility rating "excellent".

All Diamond restoratives do not contain any cytotoxic metallic ion constituents, any evaporable methacrylic acid constituents or any chemistry that yields mucous membrane irritation, fibroblasts changes, epithelial changes, microabscesses formation, lysis or hemolytic behavior.

## Biocompatibility & Cytotoxicity







# DIAMONDCROWN™ - CHAIRSIDE

## THE ELITE OF DENTAL RESTORATIVES

For Unrivalled strength and cosmetic results this unique PolyCrystalline NanoCeram dental restorative and Prosthodontic material is formulated in:

(92) Vita-Equivalent shades/color, A1-D4: Metal-Opaque(17), Opaque Dentin(16), Dentin(16), Enamel(16), Incisal(6), Chroma-Modifiers(4), Intensifiers(10) Neutral-SuperWhite(5), Glaze(1) and Clear-Coat(1).

**Class I, II, III, IV, V Restorations**

**Porcelain Fracture Repairs**

**Chairside Direct/Indirect Inlays, Onlays and Laminate Veneers**

**Metal-Free Crowns**



*DiamondCrown  
Stratification technique*

### USING DIAMONDCROWN FOR IMPLANT SUPERSTRUCTURE

DiamondCrown allows for **Immediate loading of Integrated Implant Permanent Crowns!**

DiamondCrown's Shock Absorbing, Tough, Ductile nature dissipates masticatory energy allowing for **Accelerated Osseointegration.**

Due to DiamondCrown's Shock Absorbing Characteristics, Wear Resistance and the ability to chairside repair and reaugment, it is **ideal for Occlusal Rehabilitation (TMJ Syndrome, Bruxers/Habitual Clenchers)**



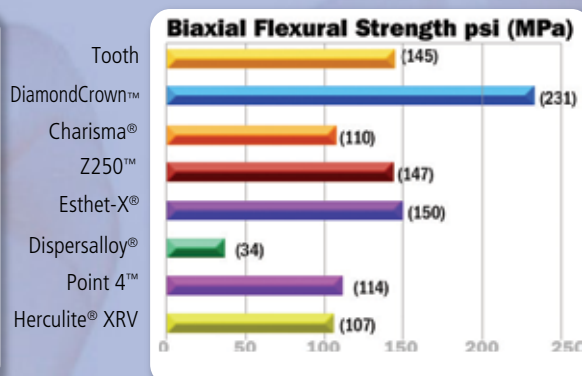
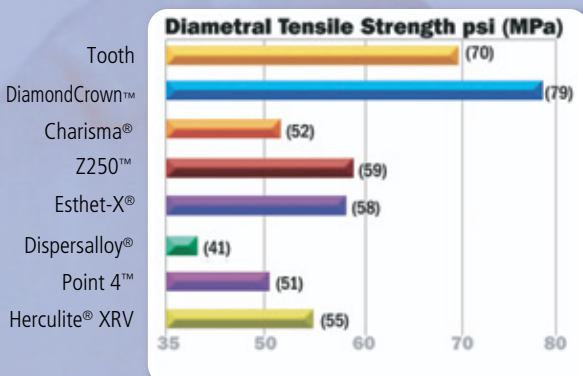
Direct Restoration of a Traumatized Lateral Incisor



6 Years Post-Op.

**18 Years Clinically Proven**

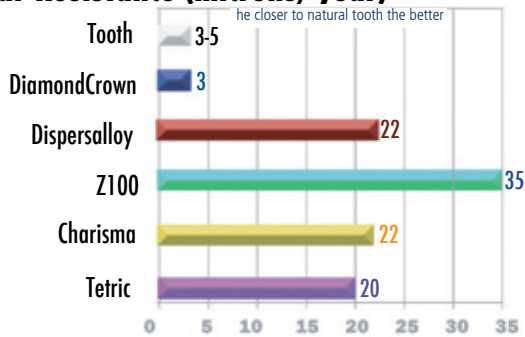
## SUPERIOR STRENGTH



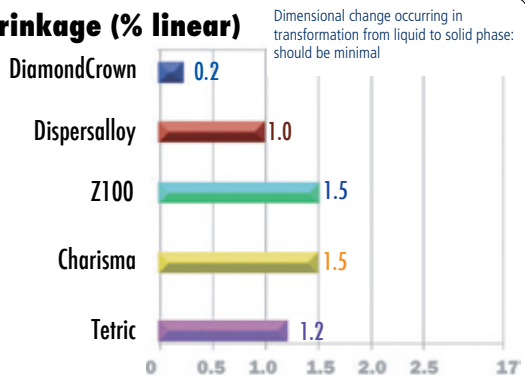
SemiCrystalline PEX Matrix,  
Masticatory Cyclic  
Fatigue resistant,  
High Fracture Toughness

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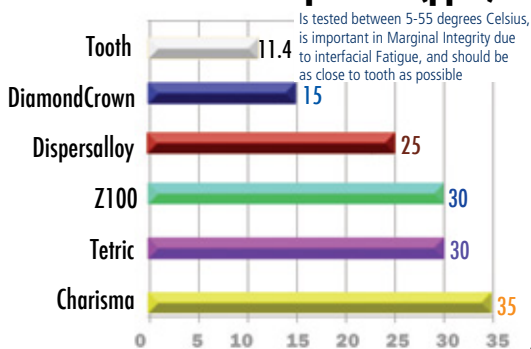
### Wear Resistance (microns/ year)



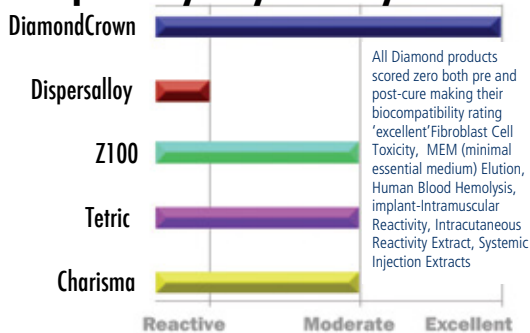
### Shrinkage (% linear)



### Coefficient of Thermal Expansion (ppm)



### Biocompatibility & Cytotoxicity



### Advantages of using DiamondCrown for Direct Applications:

- PolyCrystalline PEX Matrix, **Masticatory Cyclic Fatigue Resistant, High Fracture Toughness**
- NanoCeram reinforcing phase, Oligomer particulate interface, **Shock Absorbing, Ultimate Wear resistance**
- Unique Polymer makes DiamondCrown **Easy to Augment Intraorally due to Bond Strength of 27MPa**
- Ideal for Occlusal rehabilitation (Especially with TMJ Syndrome, Bruxers/Habitual Clenchers) due to its **shock absorbing characteristics, wear resistance, and ability to repair and reaugmentation**
- DiamondCrown's shock absorbing, tough, ductile nature dissipates masticatory energy allowing for **Accelerated Osseointegration**
- Unique particulate morphology, **Ultimate Reinforcement and Handling Characteristics**
- Thixotropy (shape-memory, anti-slumping properties) **Easy to Model, Carve, Shape and Anatomically Contour**
- High Purity Catalysis, **Superb Color Stability and Accurate Shade Match**
- Super-Hydrophobic Character, absence of solubility & negligible sorption, providing for **Ultimate Longevity**
- Very low shrinkage (0.2 linear compared to 17% for regular porcelain) guarantees **Excellent Marginal Fit.**
- Breakthrough metal-coupling chemistry produces **Stable Bond to Nickel, Chrome, Gold, Zirconium, Titanium & Non-Precious Alloys.**
- Crystalline Matrix allows for key advantages, including;
  - **Toughness and Low Shrinkage**
  - **Refractive Index, Chameleon-like Effect**
  - **Specular Reflectance, Gloss & Luster Value**
  - **Wear Resistance similar to Natural Tooth**
  - **Biocompatible and non-Cytotoxic**



The tooth pictured was made entirely from the revolutionary liquid crystal based **DiamondCrown™ PolyCeram** material

**DRM**  
Research Laboratories, Inc.

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P.O. Box 408, Branford, Connecticut 06405 USA



# DIAMONDLINK™

*DUAL CURE LUTING CEMENT & FLOWABLE BASE*

💎 **Highly Reinforced Matrix 74% Filled (wt.)**

💎 **Ultra low film thickness (13 µm)**

💎 **Fantastic Marginal Integrity**

💎 **Super High Toughness  
(shock absorbing)**

💎 **Super Hydrophobic  
(color stable &  
stain resistant)**



**Universal Dental  
Bonding System**

**Dual Cure**

**Enamel, Dentin, Resin,  
Ceramic and Metal for:**

**Crown & Bridge**

**Inlays & Onlays**

**Laminate Veneers**

**Implant Superstructure**

**Pins, Post/Core**

**Splints & Ortho-Brackets**

**Pit & Fissure Sealant**

**Flowable Cavity Liner/Base**

**Temporary Crown Material**

Strength (MPa)	BIOCOMPATIBILITY	Index Reactivity
Diametral Tensile Strength <b>59 MPa</b> Flexural Strength <b>145MPa</b> <b>with PEX</b> Film Thickness: <b>&lt; 15 microns</b>  (ADA max: 40 microns)	Systemic Injection Extracts	0
	Intracutaneous Reactivity Extract	0
	Implant-Intramuscular Reactivity	0
	Human Blood Hemolysis - Donor Subjects	0
	<b>CYTOTOXICITY</b>	<b>0</b>
	fusion (L929 Fibroblast Cell Culture)Agar Dif	0
	MEM Dilution (L929 Fibroblast Cell Culture)	0



# DIAMONDLINK™ PROPERTIES

Macrorigid/Microelastic; stress-dissipating interface	Fracture Toughness 1.6 MPa•m-1/2
Injectable 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)
Thermo-dimensionally Stable	LCCTE-25 ppm
High Marginal Integrity	0.65% Linear Shrinkage
Aesthetic	Available in Vita. Equivalent shades: Trans. B1, Natural A2, Yellow B3 (tooth-like refractive index)
Radiopaque	Yes
Light, Auto, or Dual-cure	All (3) modes
Ideal Film thickness	13µm
Optimum Reinforcement	74% wt. (64% vol.)
Color Stable	99%+alpha



## DiamondLink™ Master Kit

Universal Dental Polyglass Bonding System

Dual-cure Enamel, Dentin, Metal & Ceramic Inlay, Onlay, Laminate Veneers, Crown & Bridge, Implant Superstructure, Pins, Post/core, Splints & Ortho- Brackets, Pit & Fissure Sealant, Flowable Cavity Liner/base

**DK300K**

1- DiamondLink Refill Kit Contents

+ 1- DiamondBond 001 Kit Contents

+ 10 - DiamondLite Polishing Discs

1 - Stainless Steel Polishing Disc Mandrel (Sterilizable / Autoclavable)

1 - DRM Stainless Steel Placement Instrument; Carver-Packer (Sterilizable / Autoclavable)

1- 7.5cc Polishing Paste Jar

1- 5cc Etch Gel Conditioner

1- Bag (10) L.L. Disposable Needles

## DiamondLink™ Refill Kit

Universal Dental Polyglass Bonding System  
Dual-cure Luting Cement

**DK301K**

6 - Syringes - 5.0 grams ea. Total 30 grams.

Vita Equivalent Colors / Shades:

B1 - Translucent, A2 - Natural, B3 - Yellow

(1) Catalyst & (1) Base\*\*Trifunctional\*\*, Catalyst = Try-In Catalyst + Base = Auto-Cure & Visible Light Cure, Base = Visible Light Cure only

1 - 5.0g Catalyst Cement (Dual-Cure) B1,

1 - 5.0g Catalyst Cement (Dual-Cure) A2,

1 - 5.0g Catalyst Cement (Dual-Cure) B3,

1 - 5.0g Base VLC Cement (Dual-Cure) B1

1 - 5.0g Base VLC Cement (Dual-Cure) A2

1 - 5.0g Base VLC Cement (Dual-Cure) B3



## DiamondLink™ Refills

DK302 DiamondLink Cat. Cement B1 Translucent (5g)

DK303 DiamondLink Base Cement B1 Translucent (5g)

DK304 DiamondLink Cat. Cement A2 Natural (5g)

DK305 DiamondLink Base Cement A2 Natural (5g)

DK306 DiamondLink Cat. Cement B3 Yellow (5g)

DK307 DiamondLink Base Cement B3 Yellow (5g)



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# DIAMONDFLOW™

## Flowable PolyCrystalline



70% filler reinforced (wt.), [61% vol.]

Highly reinforced yet extremely flowable

Unique controlled flowable technology

Thixotropy shape memory, antislumping properties

Superb bonding integration for maximum adhesion

Easily accesses the most difficult preps

### CLINICAL RESTORATIVE INDICATIONS

**CLASS I CONSERVATIVE FILLINGS**

**CLASS V RESTORATIONS**

**CERVICAL EROSION REPAIRS**

**LINER**

**BASE**

**TUNNEL PREPS**

**BLOCKOUT MATERIAL**

## OUTSTANDING STRENGTH

	Diametral Tensile Strength(MPa)	Biaxial Flexural Strength (MPa)	Barcol Surface Hardness (3mm-T/B)	Fracture Toughness [Kicsr] (MPa m-1/2)
DiamondFlow™ (DRM)	55.5	176.4	99/97	2.0
Esthet-X-Flow™ (Dentsply)	47.6	136.1	97/96	1.2

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# *Strong • Tough • Beautiful*

# The NanoCeram PolyCrystalline PEX Matrix simulates the Functional-Aesthetics of **NATURAL TOOTH!**



**DK315K** **DIAMONDFLOW MASTER KIT**  
**DK316K** **DIAMONDFLOW REFILL KIT**

SHADES: A1, A2, A3, A3.5  
& UNIVERSAL

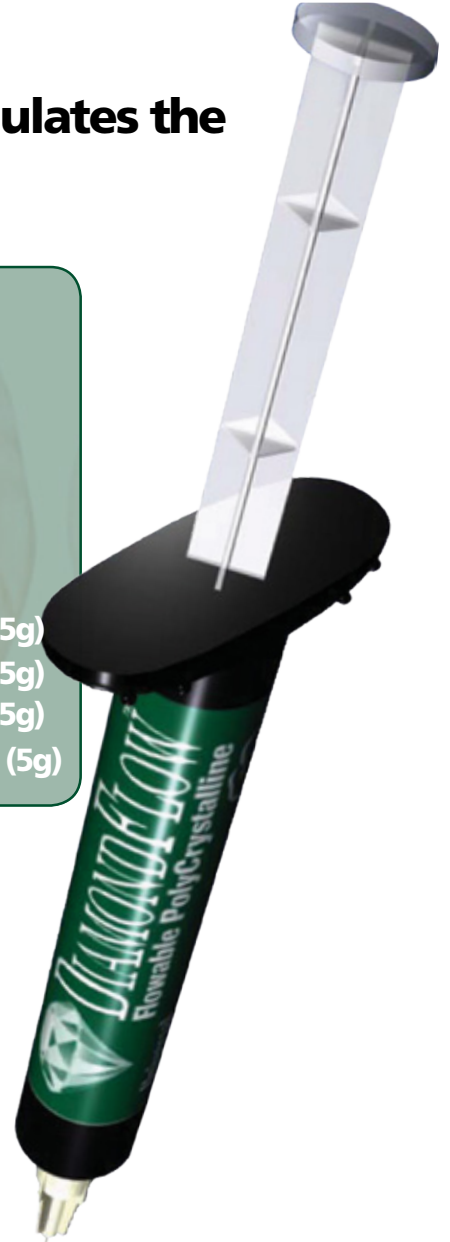
**DK320** **DIAMONDFLOW SYRINGE**  
UNIVERSAL (5g)

**DK321** **DIAMONDFLOW SYRINGE A1 (5g)**

**DK322** **DIAMONDFLOW SYRINGE A2 (5g)**

**DK323** **DIAMONDFLOW SYRINGE A3 (5g)**

**DK324** **DIAMONDFLOW SYRINGE A3.5 (5g)**



# Go With The

# Flow

## ADVANTAGES OF NANOCERAM POLYCRYSTALLINE TECHNOLOGY

- PolyCrystalline PEX Matrix, **Masticatory Cyclic Fatigue Resistant, High Fracture Toughness**
- NanoCeram reinforcing phase, Oligomer particulate interface, **Shock Absorbing, Ultimate Wear resistance**
- Unique particulate morphology, **Ultimate Reinforcement and Handling Characteristics**
- Thixotropy - **shape-memory, anti-slumping properties**
- Super-Hydrophobic Character, absence of solubility & negligible sorption, providing for **Ultimate Longevity**
- Crystalline Matrix allows for key advantages, including;
  - **Toughness and Low Shrinkage**
  - **Refractive Index, Chameleon-like Effect**
  - **Specular Reflectance, Gloss & Luster Value**
  - **Wear Resistance similar to Natural Tooth**
  - **Biocompatible and non-Cytotoxic**

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# DIAMOND CROWN™ - LAB

ALLOWS OPTIMUM AESTHETIC POSSIBILITIES FOR LABORATORY TECHNICIANS

*Achieve a final result closer to natural tooth than anything else*

## Integrated Implant Superstructure

Porcelain Fused Metal Shear Strength = **12MPa**

DiamondCrown Integrated Implant Superstructure to Titanium Abutment Post, Shear Bond Strength = **35MPa**



Base Line on Master Model

7 years Post-Op. DiamondCrown  
Conventional Ti-Implant  
Superstructure



3 years In-Vivo Correlation.  
DiamondCrown IDC  
Accelerated Cyclic Fatigue  
Studies Cross Section – shows high  
interfacial integrity

DiamondCrown allows for **Immediate loading of Integrated Implant Permanent Crowns!**

DiamondCrown's Shock Absorbing, Tough, Ductile nature dissipates masticatory energy allowing for **Accelerated Osseointegration.**

Due to DiamondCrown's Shock Absorbing Characteristics, Wear Resistance and the ability to chairside repair and reaugment, it is **ideal for Occlusal Rehabilitation (TMJ Syndrome, Bruxers/Habitual Clenchers)**

**18 Years Clinically proven over 15 million cases!**



## Crown and Bridge, Inlays/Onlays, Laminate Veneers [Metal Free]



5 yrs Post-Op.: 3 Unit  
DiamondCrown Posterior Bridge,  
Alloyless-Fiberless-Flawless  
Biomechanics. A Balance of  
Microelasticity and Macrorigidity.



3-Unit Posterior Bridgework Alloyless, Fiberless

The Average Human Masticatory Force:

Anterior Tooth = **9MPa**

Posterior Tooth = **31MPa**

Bruxer (posterior) Tooth = **41MPa**

Integrated DiamondCrown

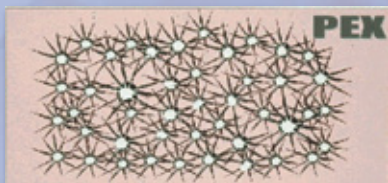
Implant Superstructure

will withstand: **500MPa!**

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



## NANOCERAM POLYCRYSTALLINE PEX MATRIX



Microcrystalline Structure - durable & ductile  
PEX = Macrorigid and Microelastic

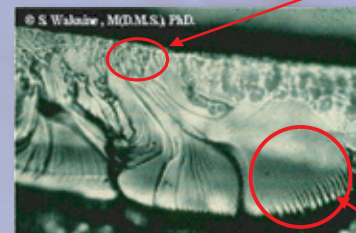


lamellar crystalline zone

shock absorbing - microelastic

amorphous zone (glassy polymer)

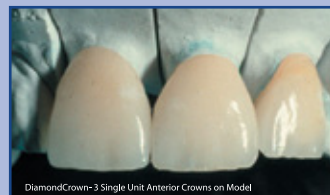
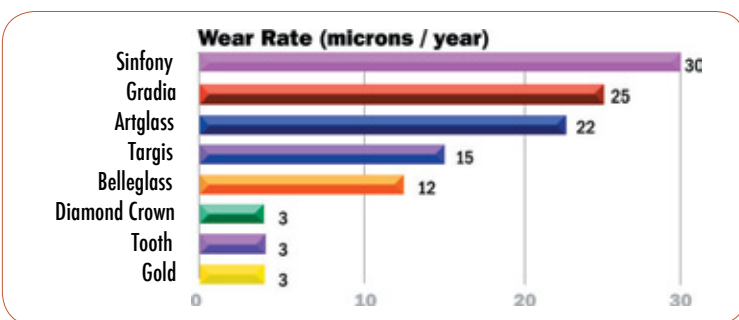
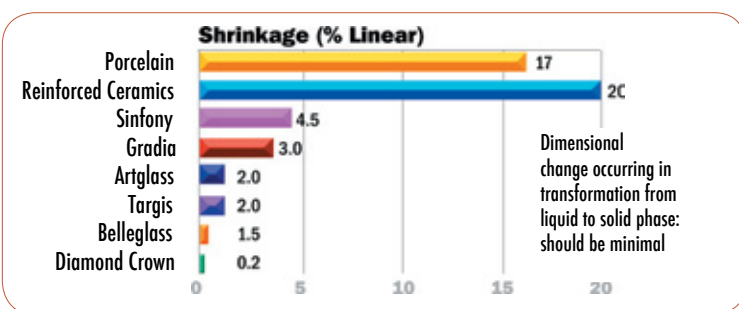
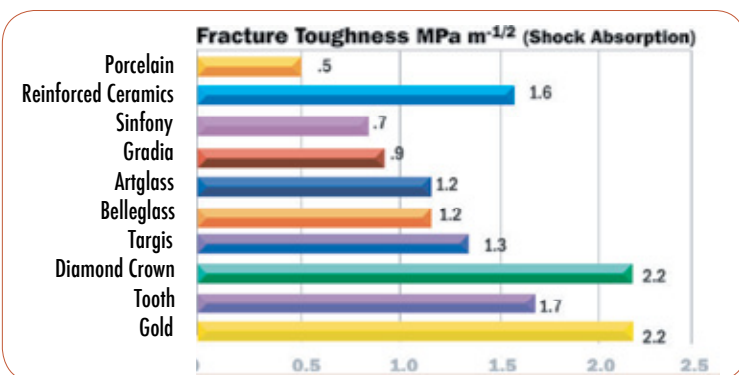
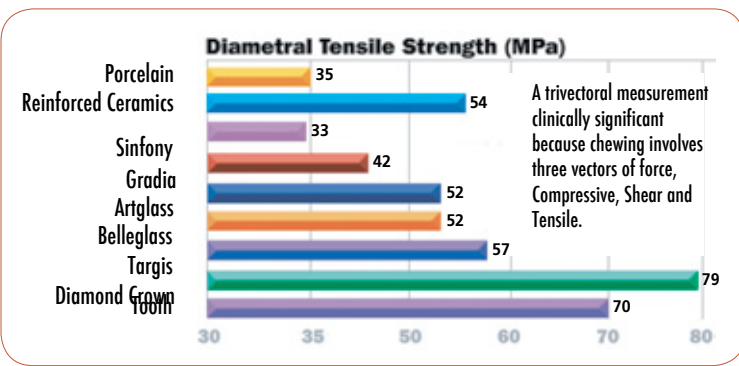
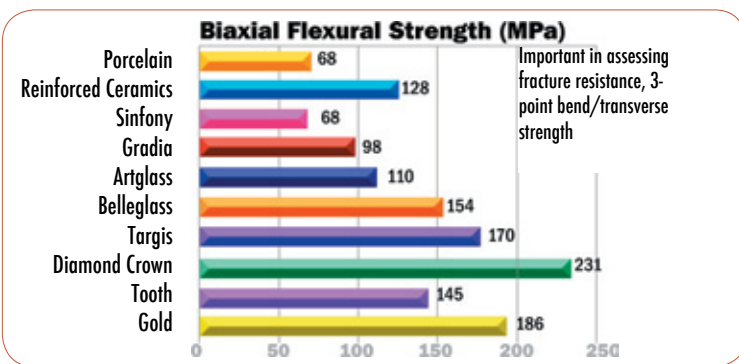
macrorigid - architectural stability



high density lamellar growth

**Stable • Hydrophobic • High Density • Fracture Resistant • Permanent • Superior Aesthetics**





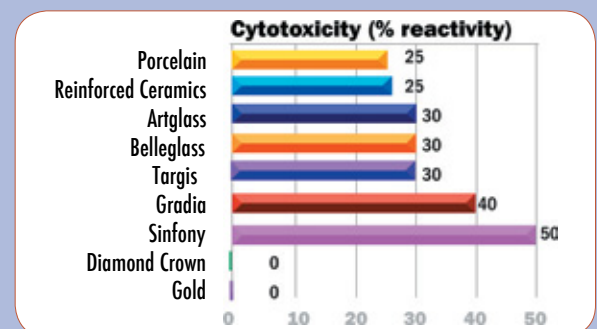
DiamondCrown  
3 Single Unit Anterior Crowns on Model



Note: Lack of Plaque Adhesion and Excellent Gingival Tissue Response  
IntraOral Post-Op - Superb Aesthetic Vitality and Tissue Compatibility.

## Advantages of using DiamondCrown for Indirect Applications:

- PolyCrystalline PEX Matrix, **Masticatory Cyclic Fatigue Resistant, High Fracture Toughness**
- NanoCeram reinforcing phase, Oligomer particulate interface, **Shock Absorbing, Ultimate Wear resistance**
- Breakthrough metal-coupling chemistry produces **Stable Bond to Nickel, Chrome, Gold, Zirconium, Titanium & Non-Precious Alloys**
- Unique Polymer makes DiamondCrown **Easy to Augment Intraorally due to Bond Strength of 27MPa**
- DiamondCrown's shock absorbing, tough, ductile nature dissipates chewing energy allowing for **Accelerated Osseointegration**
- DiamondCrown PEX Matrix dissipates masticatory energy, a dampening-like effect, which allows for the **Immediate Loading of Implant Crowns.**
- Unique particulate morphology, **Ultimate Reinforcement and Handling Characteristics**
- Thixotropy (shape-memory, anti-slumping properties) **Easy to Model, Carve, Shape and Anatomically Contour**
- High Purity Catalysis, **Superb Color Stability and Accurate Shade Match**
- Super-Hydrophobic Character, absence of solubility & negligible sorption, providing for **Ultimate Longevity**
- Very low shrinkage (0.2 linear compared to 17% for regular porcelain) guarantees **Excellent Marginal Fit.**
- Crystalline Matrix allows for key advantages, including:
  - **Toughness and Low Shrinkage**
  - **Refractive Index, Chameleon-like Effect**
  - **Specular Reflectance, Gloss & Luster Value**
  - **Wear Resistance similar to Natural Tooth**
  - **Biocompatible and non-Cytotoxic**



**DRM**  
Research Laboratories, Inc.

Comparative analysis charts denote brand names that are sole registered trademarks of the corresponding Manufacturers. © 2014

For More information call DRM RESEARCH LABORATORIES, INC.,  
TEL: (203)488-5555, TOLL FREE: (888)DRM-BOND [376-2663], FAX: (203)488-2821  
E-mail [drmbond@drmco.com](mailto:drmbond@drmco.com) or visit our website [www.drmco.com](http://www.drmco.com)  
P.O. Box 408, Branford, Connecticut 06405 USA



# DIAMOND CURING DEVICES

A WHOLE NEW LEVEL OF PERFORMANCE

**All Diamond  
Curing Lights  
Cure ALL  
Composites  
GUARANTEED!**

## DIAMONDLITE™ TURBO-HALOGEN



ED800V12

**Clinical Indication:**  
**Photopolymerization of**  
**PolyGlass / PolyCeram**  
**Dental Restorative**

- Includes:
- 1 - power base/stand with digital keypad VLC-Halogen unit
  - 2 - light probes; 1 regular-11mm & 1 turbo-8mm
  - 1 - LCD display including;
    - 20 sec. (400-800 mW/cm<sup>2</sup> ramped action)
    - auto. mode regular cure
    - 40 sec. (300-600 mW/cm<sup>2</sup> ramped action)
    - auto. mode regular cure
  - 5L (5 sec.)(400 mW/cm<sup>2</sup>) auto. mode turbo cure including automated ramped action
  - 10H (10 sec.)(600-700-800-900-1000-1100 mW/cm<sup>2</sup>) auto mode turbo cure and bleaching including automated ramped action
  - 1 - LCD display port - built in radiometer, including (mW/cm<sup>2</sup>) irradiance intensity
  - 1 - VLC gun with 180cm cord including actuating fingertip touch pad
  - 1 - light probe custom fit protective shield
  - 1 - protective eyewear



ED801V12

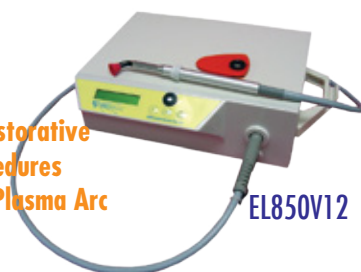
**Clinical Indication:**  
**Photopolymerization of**  
**PolyGlass / PolyCeram**  
**Dental Restorative**

## DIAMONDLED™

- Wavelength Range: 440-490 nm  
Irradiance Intensity: min. 800mW/cm<sup>2</sup>  
Curing Time: 20 seconds per cycle with Intermittent Beep Every 10 Seconds.  
Total Exposure Time with New Fully Charged Battery: (900sec.) ~ 45 cure cycles.
- 1 - Re-Charge Base Control
    - Power Indicator ~ (green LED)
    - Charging Indicator ~ (orange LED)
  - 1 - Cordless Handpiece
    - Start / Stop Button
    - Ready Indicator ~ (green)
    - Charge Indicator ~ (yellow)
  - 1 - Turbo Light Probe Tip-13 / 8mm
  - 1 - Nickel-Metal Hydride Battery
  - 1 - Auxiliary Power Cord
  - 1 - Light Probe Protective shield

## DIAMONDPLASMA™

**Clinical Indication:**  
**Photopolymerization of**  
**PolyGlass / PolyCeram Dental Restorative**  
**Tooth Whitening / Bleaching Procedures**  
**for Dental Clinic - Dentist Xenon Plasma Arc**  
**1-3-6-10 Seconds Cure Time**



EL850V12

- 1 - Base stand with digital keypad display-Xenon Plasma Arc unit.
  - 2 - magnetic R-angle light probes (360° revolution), 8mm
  - 1 - light emitting (fiber-optic) 180cm (6 ft.) bundle cord with stainless steel encased optics and automated quick-release fingertip actuated trigger
  - 1 - custom fitted protective shield
  - 20 - plastic (neoprene) red light-probe protective cones
  - 1 - LCD digital display, including; auto. mode touch pad programming; @ 100% intensity, including;
    - I. 3 sec.-BL (Bleaching) = 1400 mW/cm<sup>2</sup> (coned) @ 8mm distance) 2500 mW/cm<sup>2</sup> (unconed)
    - II. 6 sec.-SC (Step-Cure) = 600-1400 mW/cm<sup>2</sup> (coned), 1200-2500 mW / cm<sup>2</sup> (unconed)
    - III. 6 sec.-RA (Ramped-Cure) = 600-1200 mW/cm<sup>2</sup> (coned), 1200-2500 mW/cm<sup>2</sup> (unconed)
    - IV. 10 sec.-NM (Continuous - Cure) = 1400 mW/cm<sup>2</sup> (coned), 2500 mW / cm<sup>2</sup> (unconed)
- \*mode (iv) can further include intra-parametric variables whereby each mode can be used @ 4 variable intensities; 50-60-80-100% and 4 variable exposure times; 1-3-6-10 sec.
- 1 - LCD-digital display / port, built-in radiometer indicating (mW/cm<sup>2</sup>) irradiance intensity.

## DIAMONDLED™ MINI

**High output - 6 Seconds at high intensity for most composites**

**Shaped to be held like a dental Handpiece**

**Size: 15cm (6 in.)**

**Weight: 30g (1 ounce)**

Ultra High Intensity: Single click - 1000mW/cm<sup>2</sup>  
Double click - 500mW/cm<sup>2</sup>

High Intensity: Single click - 700mW/cm<sup>2</sup>  
Double click - 500mW/cm<sup>2</sup>

Wavelength Range: 450-490 nm

Variable irradiance intensity.

Ultra High and High Intensity LED - 5000 hours min. lifetime

Continuous operation with intermittent loading - 16 sec. On - 15 sec. Off

1 - LED Handpiece w/ 8mm tip 2 - Eyeshields

50 - Curing Sleeves 1 - Hand-piece Hanger

ED802HV12 Type 1 - 700 mW/cm<sup>2</sup>

ED802UV12 Type II - 1000 mW/cm<sup>2</sup>



**Clinical Indication:**  
**Photopolymerization of**  
**PolyGlass / PolyCeram**  
**Dental Restorative**

## 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.



EL830V12

Programmable digital microprocessor display includes four (4) cure cycles;  
Phase I: 1-4 min. exposure for Opaque Dentin, Dentin Intensifiers, and Dentin Chroma Modifiers, 0.25-1.5mm Layer.

Phase II: 2 min. exposure for Dentin, 0.5-3mm layer,

Phase III: 1 min. exposure for Enamel, 0.25-3 mm layer,

Phase IV: 1 min. exposure for Incisal, 0.25-3mm layer.

Phase V: 1 min. exposure for Modeling Liquid.

Phase VI: 3 min. exposure for Glaze or

SuperClear CoatStart / Stop cycle; audible beep, light protective viewing port / window.

Multiple Voltage Unit - 100-250V

### Clinical Indication:

Photopolymerization of PolyGlass / PolyCeram Prosthetic Materials, Indirect Prosthetic System Halogen Cure Booth;  
Dental Clinic Direct / Indirect technique and Laboratory Technologist



## DIAMONDLITE™ VLC/IR DIGITAL RADIOMETER

DiamondLite™ VLC / IR (dual-range digital Radiometer (mW/cm<sup>2</sup>) for verification of VLC (visible) irradiance intensity & IR (infrared/heat) emitting component associated with any VLC photopolymerization unit; Halogen, LED, Xenon Plasma Arc

2 - 8mm (I.D.) photosensitive ports: VLC and IR - digital display (mW/cm<sup>2</sup>)



ED803

### Clinical Indication:

Verification of Irradiance intensity (mW/cm<sup>2</sup>) dual-range VLC (visible light cure) & IR (Infrared) of Photopolymerization Chairside units

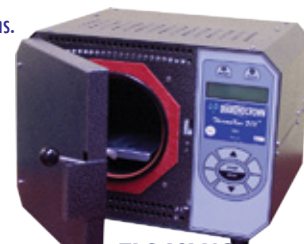


## DIAMONDCROWN™ THERMOKUR™ F/X™

Recommended for DiamondCrown™ Laboratory Systems.

Digital readout display (seconds, minutes).

Cycle / Phase select indicator, semi-automated microprocessor programmable, adjustable time / temperature settings.



EL840V12

Phase I - Metal Coupler; 5 min., 120°C dry heat.

Phase II - Metal Opaque layer or Glaze Resin Coat;

5-10 min, 120°C heat and pressure.

Phase II requires a minimum 85psi / 550KPa / 5.5 Bar, air pressure mediated by an oil filter, dehumidifier, 5µm (micron) particulate filter situated in a polycarbonate pressure regulator bowl. The pressure is routed in 6.4mm O.D. flexible, snap-fit, Teflon tubing (175 psi rating, pressure resistant).

Automated phase controls; start / stop, menu, enter, toggle / scroll, audible beep / alarms.

Multiple voltage unit; 100-250 V.

### Clinical Indication:

Optimal DiamondCrown Metal Coupler / Metal Opaque / Glaze Resin application. Heat / Pressure Laboratory Cure Chamber

## DIAMONDCROWN™ THERMOKUR™ F/X™ INSTALLATION KIT

### EL840IK

1 - Pressure Regulator / Filter

1 - Pressure Gauge

2 - Brass NPT Fittings (snap fit)

1 - Mounting Bracket

1 - 240cm (8 ft.) Length Teflon Tubing/6.4 mm O.D. flexible, snap-fit, (175 psi rating, pressure/ heat resistant).

### Clinical Indication:

Facilitates installation of DiamondCrown ThermoKur F/X Heat / Pressure Laboratory Cure Chamber

## AUXILIARY COMPONENTS

EL850P4 DiamondPlasma™ Replacement Fiber Optic Light Guide

EL850P2 DiamondPlasma™ Magnetic Right-angle light probe tip (360 revolution) 7.8mm (I. D.)

EL850P3 DiamondPlasma™ Magnetic Right-angle light probe tip (360 revolution) 10.8mm (I. D.)

EL850P1 DiamondPlasma™ Xenon Plasma Arc Curing System Replacement Conical Tips (20/box)

DiamondPlasma™ Handpiece Magnetic Trigger

ED800P2 DiamondLite™ Turbo-Halogen Right-angle Turbo light probe tip (360 revolution) 7.8mm (I. D.)

ED800P1 DiamondLite™ Turbo-Halogen Right-angle Reg. light probe tip (360 revolution) 10.8mm (I. D.)

DiamondLite™ Turbo-Halogen Replacement Bulb 120V/75

WEL830P1 DiamondLite FotoKur™ F/X Replacement - 120 V / 150 W Bulb

EL830P3 DiamondLite VL Halogen Lab Cure Booth Turntable

ED800P3 DiamondPlasma™, DiamondLite™ Turbo-Halogen, DiamondLed™ Universal Protective Shield - Amber

For More information call DRM RESEARCH LABORATORIES, INC.,  
TEL: (203)488-5555, TOLL FREE: (888)DRM-BOND [376-2663], FAX: (203)488-2821  
E-mail drmbond@drmco.com or visit our website www.drmco.com  
P.O. Box 408, Branford, Connecticut 06405 USA