



SmartCrown™  $\text{Ca}^{2+}$   $\text{PO}_4^{3-}$   $\text{F}^-$   
Powered by  
*Beyond*™

A Story Of Two Unique Dental Materials Intertwined Together

**Restorative**  
Zirconia  
Anterior Full Contour



**Preventive**  
BioActive Glass Ionomer  
Caries Inhibiting &  
Enamel Remineralizing



## What is ORIGIN® SmartCrown™?

It's a new breed of patents-pending crown that embraces caries inhibiting bioactive material in the mesial and distal sides of the crown. It not only restores form and function, but also strengthens the neighboring natural teeth to prevent caries. Extensive clinical research with Resin Modified Glass Ionomer (RMGI) has confirmed that its fluoride release to the proximal tooth structures effectively inhibits caries and demineralization. As is the case with fluoride releasing direct treatments with RMGI, the SmartCrown™ works to promote the healthy tooth structure by constantly releasing fluoride to the adjacent teeth.



Bioactive material embedded in the interproximal area of beyond zirconia

# SmartCrown™ + Beyond™ Differentiate Your Business



The top row is ORIGIN® Beyond™ Zirconia. The bottom row is conventional zirconia. Both are Shade A2 unglazed.

## What is ORIGIN® Beyond™?

Beyond™ is a new breed of zirconia with translucency similar to lithium disilicate. With this unprecedented translucency, the high (white)  $L^*$  value existing in conventional zirconia is now a thing of the past. See for yourself and you will understand why dentists are choosing ORIGIN® Beyond™ over lithium disilicate and conventional zirconia.



### **ORIGIN® Beyond™**

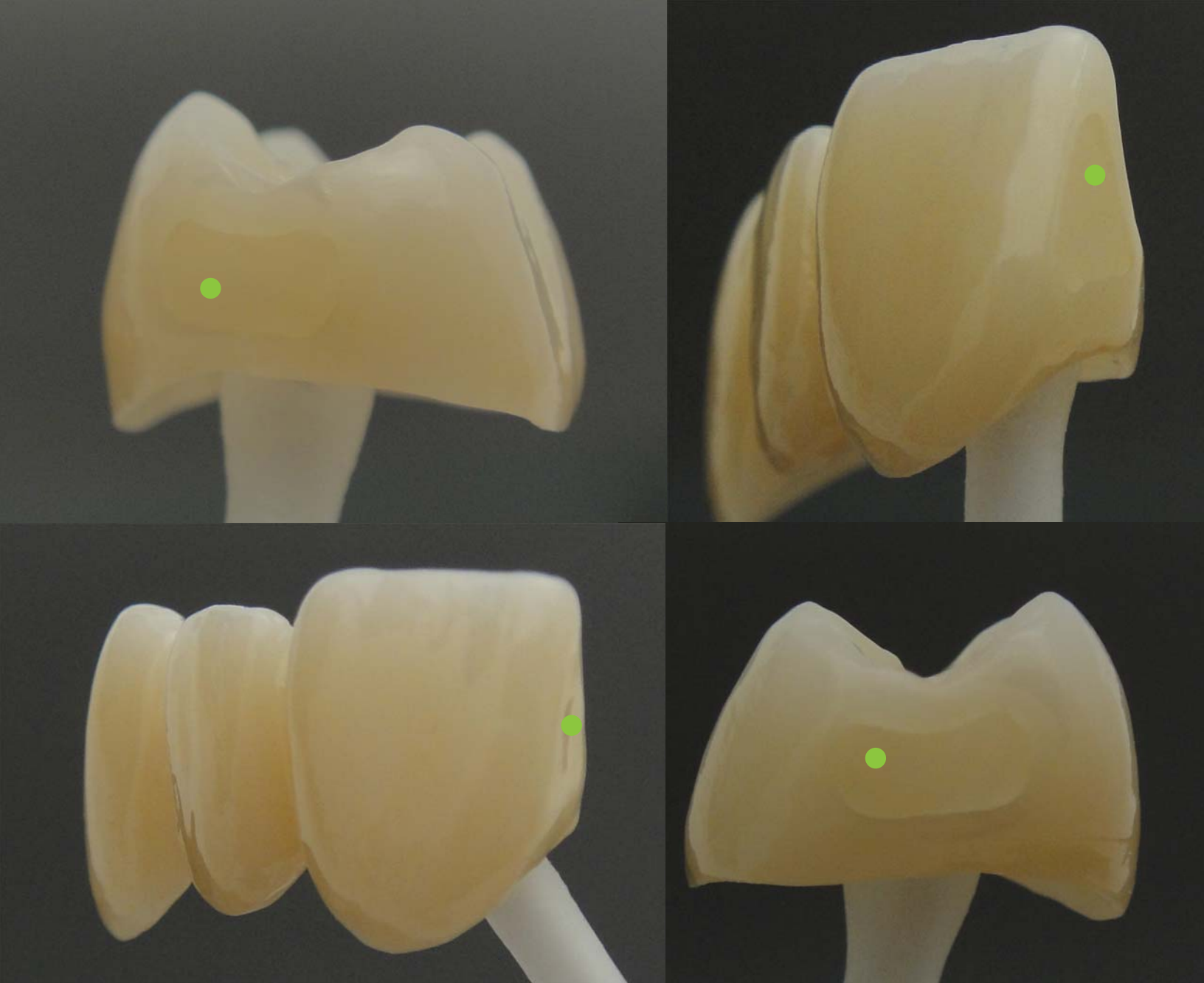
Its superior aesthetic qualities combined with greater optical clarity make it ideal for anterior full contour restorations. Its vibrant transparency will raise posterior aesthetics to new heights while offering 2X the strength of lithium disilicate crowns.

- Optimized microstructure provides higher translucency
- Significant flexural strength, in excess of 680 Mpa (Univ. of Utah)
- Indications include inlays, onlays, single restorations, both anterior and posterior, and up to 3 unit anterior bridges
- Full contour restorations or substructures for layering
- Significantly more translucent than traditional high translucency zirconia



Incisal enhancer has been applied to the incisal area of the full contour crowns. In actual production, the crowns are cut first and then the color liquids are applied.





## SmartCrown™ + Beyond™ Empower Your Crown

- The ORIGIN® SmartCrown™ strengthens and re-hardens the enamel of adjacent teeth
- Fluoride releasing bioactive restorative material inhibits interproximal caries
- ORIGIN® Beyond™ zirconia eliminates the high L\* value associated with conventional zirconia crowns while allowing significantly more light, thereby creating natural aesthetics.

# ACTIVA™ BioACTIVE-RESTORATIVE™

BioACTIVE Products for ProACTIVE Dentistry

## The Future of Dentistry Now in Your Hands



### MIMICS NATURAL TEETH

ACTIVA bioactive products are composite resins that are more bioactive and release more fluoride than glass ionomers. They are the first dental restoratives with a bioactive resin matrix, a shock-absorbing resin component, and bioactive glass fillers that mimic the physical and chemical properties of natural teeth and deliver direct long-term benefits to your patients.

### YOUR PATIENTS WILL THANK YOU

ACTIVA represents a proactive approach to dentistry that anticipates future oral health needs and emphasizes prevention and long-term patient care. Be proactive. Build your practice with ACTIVA bioactive products.

### "SMART" BIOACTIVE MATERIAL

ACTIVA is a "smart" material that is moisture tolerant and continuously reacts to pH changes in the mouth to release and uptake calcium, phosphate and fluoride ions and help maintain the chemical balance of tooth structure.

### ESTHETIC AND DURABLE

ACTIVA is a highly esthetic restorative that resists wear and chipping, and absorbs shock and stress forces like natural teeth. It is tougher and more durable than traditional restorative materials.

### LONG LASTING BENEFITS

The bioactive properties of ACTIVA recharge in the mouth and keep working after your patients leave the office. This continues indefinitely, and patients enjoy a lifetime of benefits from each treatment.

Indicated for Class I, II, III and V restorations. Ideal for bulk filling.

### 3 Key Components

An unparalleled combination of chemical and physical properties deliver esthetics, bioactivity, toughness, resilience and marginal integrity:

1. Patented bioactive ionic resin
2. Patented rubberized resin
3. Bioactive glass ionomer

### Key Features

- Tough, resilient, fracture and wear resistant, absorbs shock
- Releases, recharges calcium, phosphate and fluoride
- Natural esthetics – Highly polishable
- No sensitivity
- Ionic bonds form exceptional marginal seal
- Resists chipping and crumbling
- Dimensionally stable
- Moisture friendly
- Low water sorption - Low solubility
- Light cure, self-cure, no depth of cure concerns
- Radiopaque

Available in easy to use automix syringes – no mixing, no capsules, no porosity, no waste!

Beyond zirconia crown embracing bioactive restorative material



# ACTIVA™ BioACTIVE-RESTORATIVE™



Shows cases restored with ACTIVA BioACTIVE-RESTORATIVE. ACTIVA is esthetic and durable and delivers continuous, long-lasting bioactivity and patient benefits.



**A1** Shows conservative cavity prep on first molar

Photos courtesy of Dr. Leon Katz



**A2** Shows molar restored with ACTIVA™ BioACTIVE-RESTORATIVE™

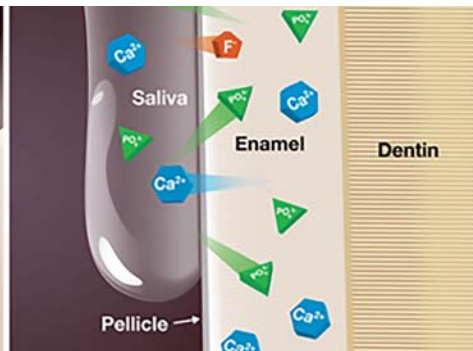
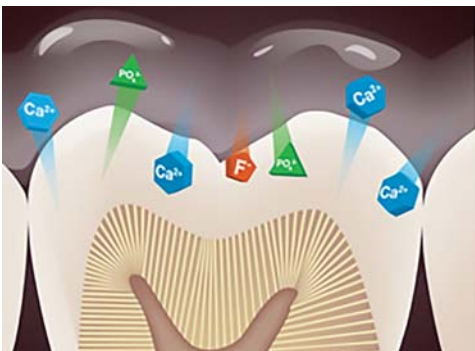


**B1** Shows Class II cavity prep

Photos courtesy of John Comisi, DDS



**B2** Shows tooth restored with ACTIVA™ BioACTIVE-RESTORATIVE™



## ACTIVA™ Overview - ACTIVA™ BioACTIVE

Advances in dental materials make possible a proactive approach to patient treatment and oral health care. Bioactive materials that behave favorably in the moist oral environment, neutralize conditions that cause dental caries, provide prevention benefits, and maximize the potential for remineralization will become the accepted standard of care.

ACTIVA BioACTIVE products are the first dental resins with a bioactive ionic resin matrix, shock-absorbing rubberized resin component, and reactive ionomer glass fillers that mimic the physical and chemical properties of natural teeth. These bioactive materials actively participate in the cycles of ionic exchange that regulate the natural chemistry of our teeth and saliva and contribute to the maintenance of tooth structure and oral health.

ACTIVA has the strength, esthetics and physical properties of composites and delivers more fluoride release than glass ionomers combining the best attributes of both materials without compromising either one. ACTIVA chemically bonds and seals teeth against bacterial leakage and its continuous release and recharge of calcium, phosphate and fluoride ions provide patients with long-term benefits. Read more at [www.pulpdent.com](http://www.pulpdent.com)

Shows large Class II restored with ACTIVA™ BioACTIVE-BASE/LINER™ and ACTIVA™ BioACTIVE-RESTORATIVE™



**1** Shows prepared tooth

Photos courtesy of Dr. Robert Lowe



**2** ACTIVA™ BioACTIVE-BASE/LINER™ after light curing



**3** Tooth is etched for 5 seconds with Etch-Rite phosphoric acid gel



**4** Finish restoration with ACTIVA BioACTIVE-RESTORATIVE (shown) or composite



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Be A SmartCrown™ Lab  
 Limited Opportunities Available

**Combat**  
 Falling Crown Prices

**Overcome**  
 Your Competition

**Secure**  
 More Doctors

**Show Them You Care**  
 Promote Patient Health



International Dealerships  
 Available

Origin® SmartCrown™ Intellectual Properties - Patents (Pending)  
 61/892,345 61/909,812 61/993,894 14/292,601 PCT/US14/40554 14/452,199  
 62/033,490 29/503,255 62/055,915 62/095,269 62/105,586

Origin® SmartCrown™ With Fluoride  
 SmartCrown.com

**World's Only Caries Inhibiting  
 And Remineralizing Crown**