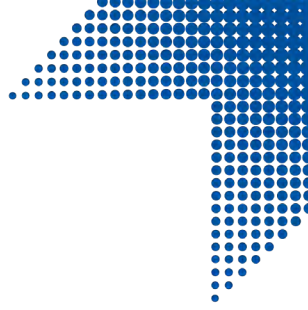




## LuxaCore Z Dual

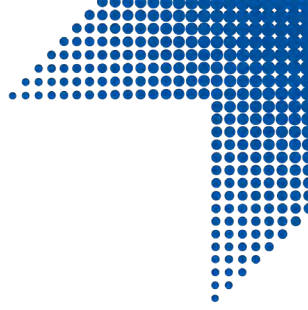
The power of Zirconia at its core.



# What Makes A Good Core Material?

Excellent physical properties including:

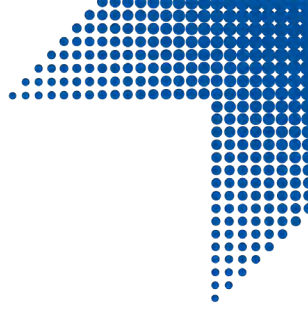
- ↙ Great delivery system
- ↙ High compressive strength
- ↙ High tensile strength
- ↙ High flexural strength
- ↙ Flexural modulus close to dentin
- ↙ Cuttability close to dentin
- ↙ Good flow characteristics
- ↙ High radiopacity



# How About a GREAT Core Material?

- ↪ Dentin-like physical properties
- ↪ Exceptionally high compressive strength and stability under the crown
- ↪ Excellent flow characteristics for optimal adaption
- ↪ Flexural modulus very close to dentin.
- ↪ Ideal cuttability, very similar to dentin.
- ↪ Reliable curing: no layering required.
- ↪ Dual-curing: flexible treatment options
- ↪ Film thickness of 20 $\mu$

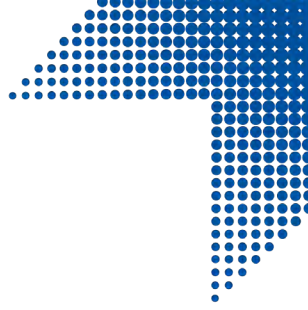




# LuxaCore Z Dual: At a Glance

- ▶ The new LuxaCore cuts like natural dentin and offers superior physical properties to match natural tooth structure closer than any other core build-up material
- ▶ The first material in its category
- ▶ Increased compression strength and polishing values thanks to DMG's patented nanotechnology
- ▶ Excellent flow properties guarantee optimal adaptation to the cavity walls and root posts
- ▶ Ultra thin film thickness (20µm) is ideal for cementing root posts

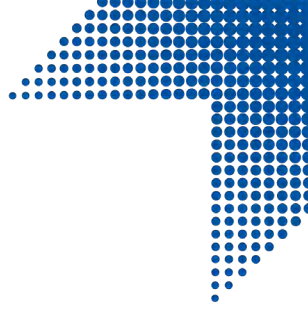




# What's This Zirconia Stuff?

- ↪ A ceramic material
- ↪ Nonmetallic-biocompatibility with no danger of adverse reactions
- ↪ 1,000 times stronger than steel but much lighter in weight

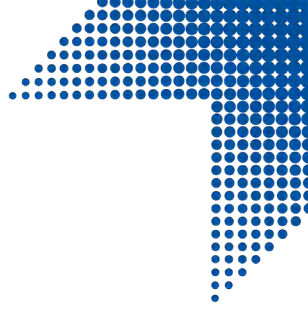




# Benefits of Nano Particles

- ↳ Tougher, more durable, resilient “glue” to hold the composite together
- ↳ Improves the composite’s physical properties and flow characteristics
- ↳ Affects the surface tackiness of the composite thus the workability of the material





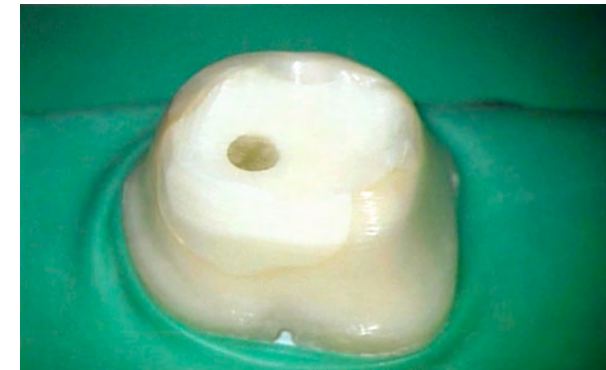
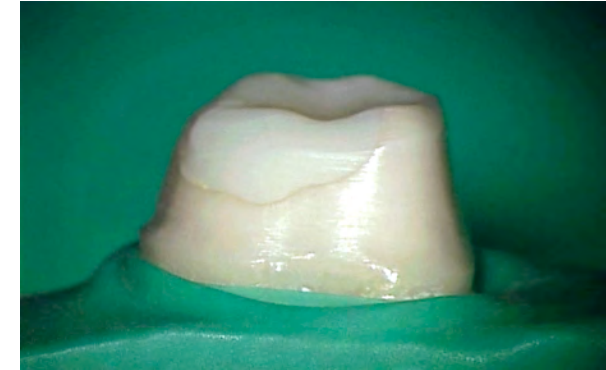
# Zirconium and Nano-Particles

- ↳ Vastly improved compressive strength of 380 MPa
- ↳ Flexural modulus close to that of natural tooth structure allows **LuxaCore Z Dual** and tooth structure to react nearly identically to load forces
- ↳ Result: fewer micro-cracks

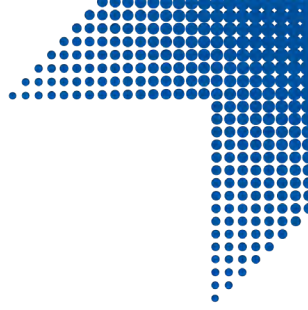


# Cuttability

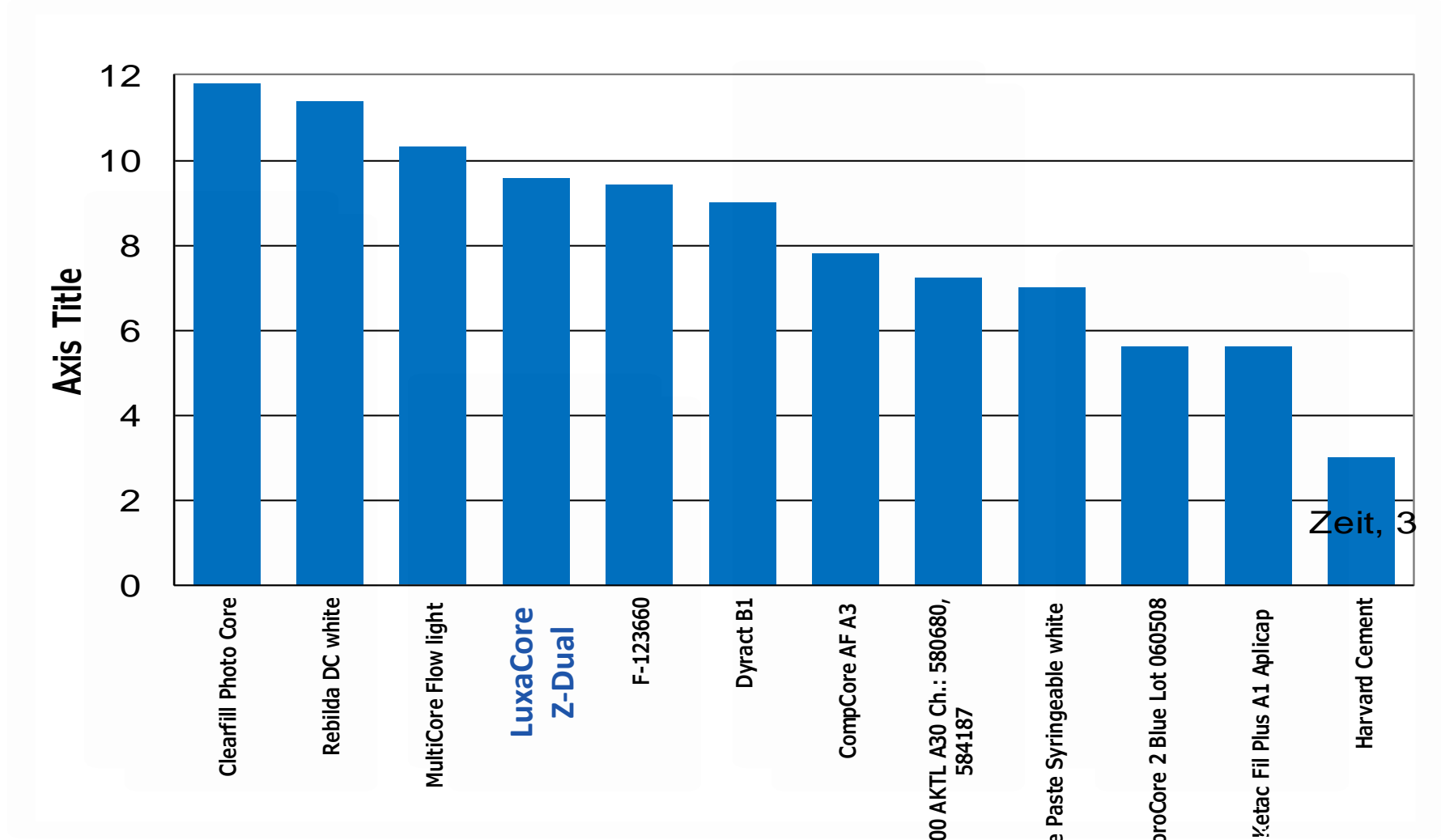
- ↪ Critical property in resin core materials
- ↪ A dentin-like cutting rate and feel is highly desirable
- ↪ “Substance Removal” tests determine a material’s cutting rate
- ↪ **LuxaCore Z Dual** has a cutting rate virtually identical to natural dentin







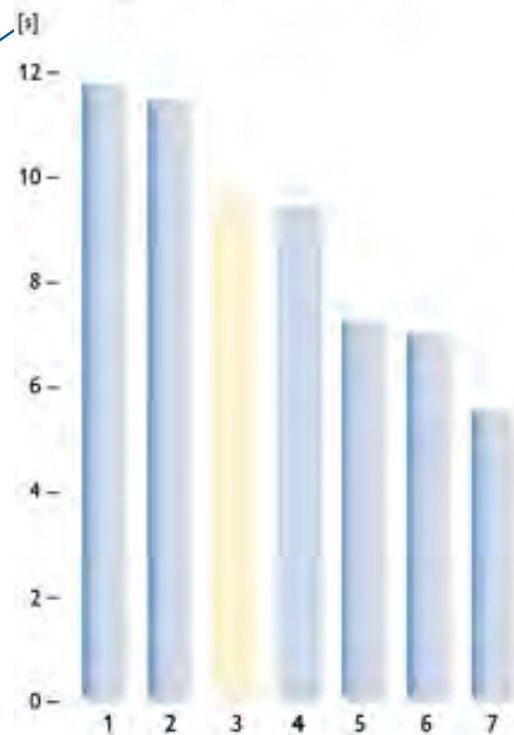
# LuxaCore Z Dual – DMG Polishability Study





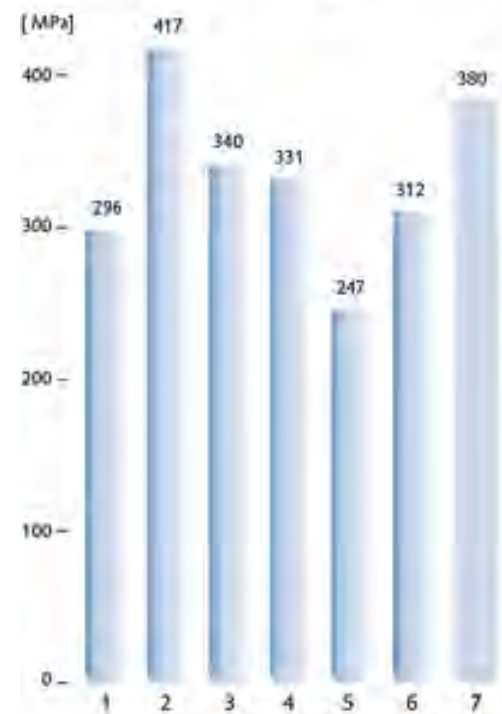
# Cutting Characteristics & Compressive Strength

### Cutting characteristics

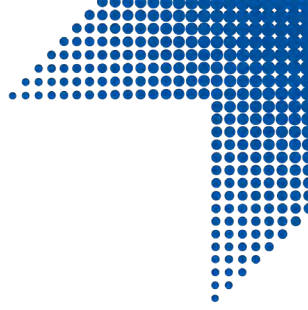


1. Clearfil Photo Core (Kuraray Dental), 2. Rebuild DC (NOVO),  
3. Dentin, 4. LuxaCoreZ-Dual (DMG),  
5. LuxaCore (DMG), 6. Core Paste (American Dental Systems),  
7. FluoroCore 2 (Cauk)

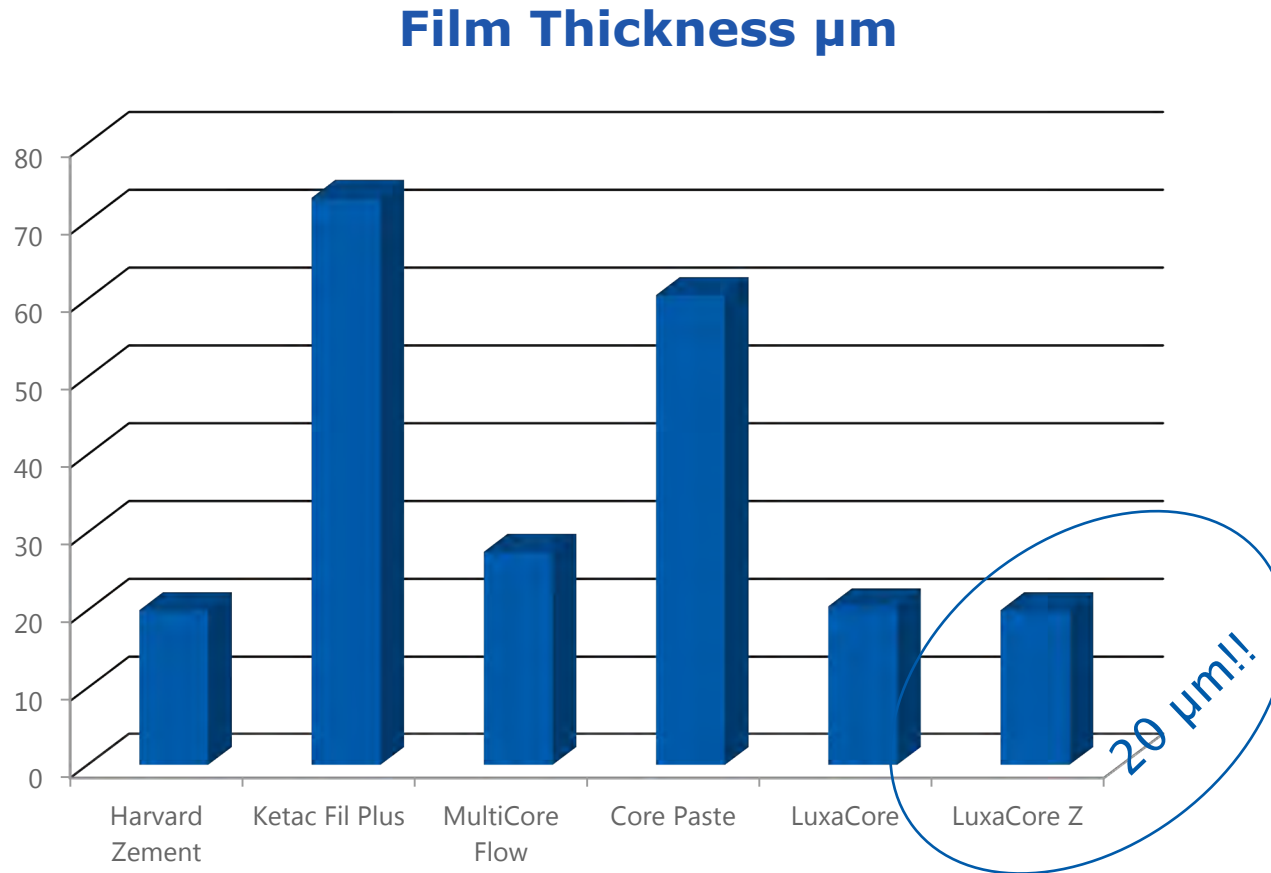
### Compressive strength



1. Clearfil Photo Core (Kuraray Dental), 2. CompCore AF (American Dental Systems), 3. Rebuild DC (NOVO), 4. MultiCore Flow (Ivoclar Vivadent), 5. Core Paste (American Dental Systems), 6. FluoroCore 2 (Cauk), 7. LuxaCoreZ-Dual (DMG)

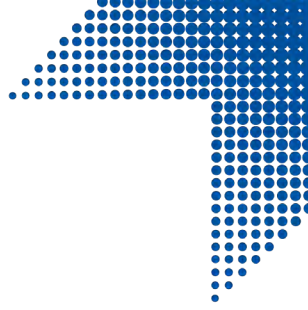


# Filler Particles Effect Film Thickness



# Perfect Flow





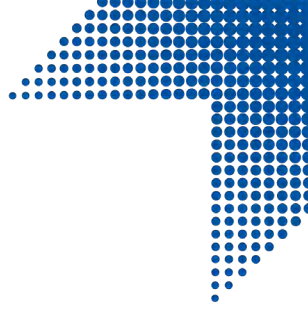
**LuxaCore Z**  
as a core build-up material

**LuxaPost**

**LuxaCore Z**  
as post cement

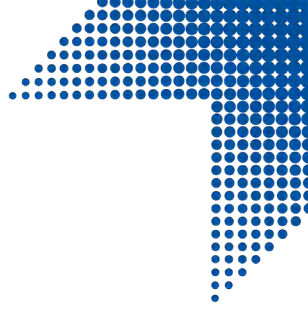
Few materials  
+  
Similar mechanical properties

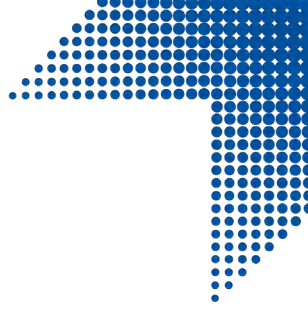
1:30 / 2:03



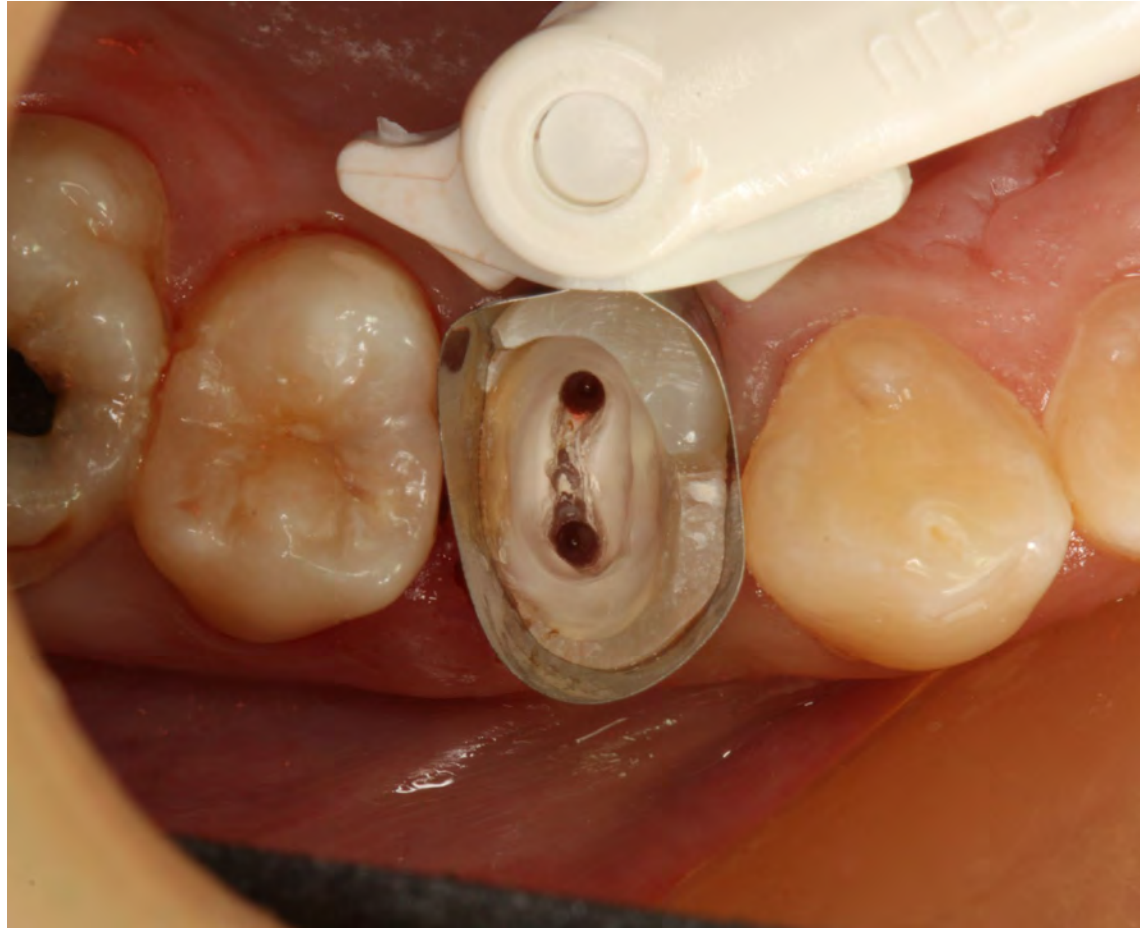
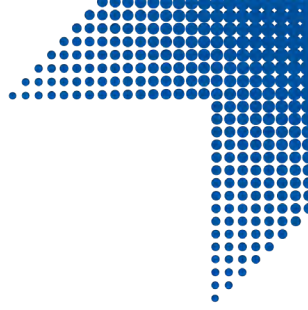
# Case One

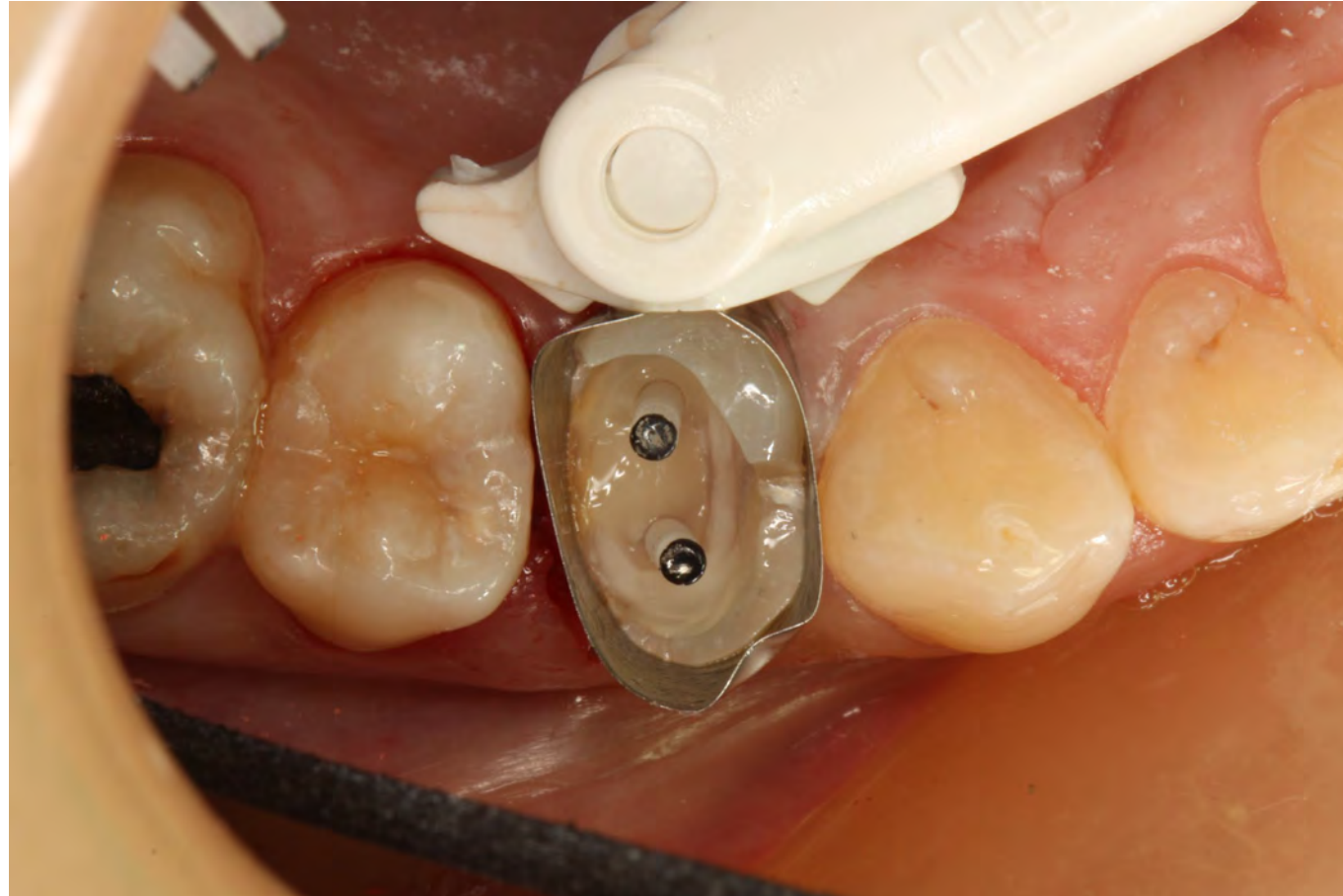
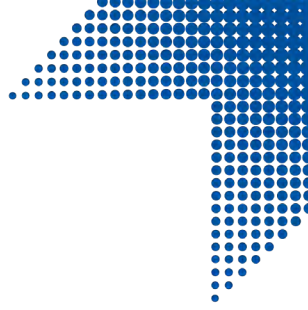
Photos shown in this case are courtesy of Dr. Gary Radz

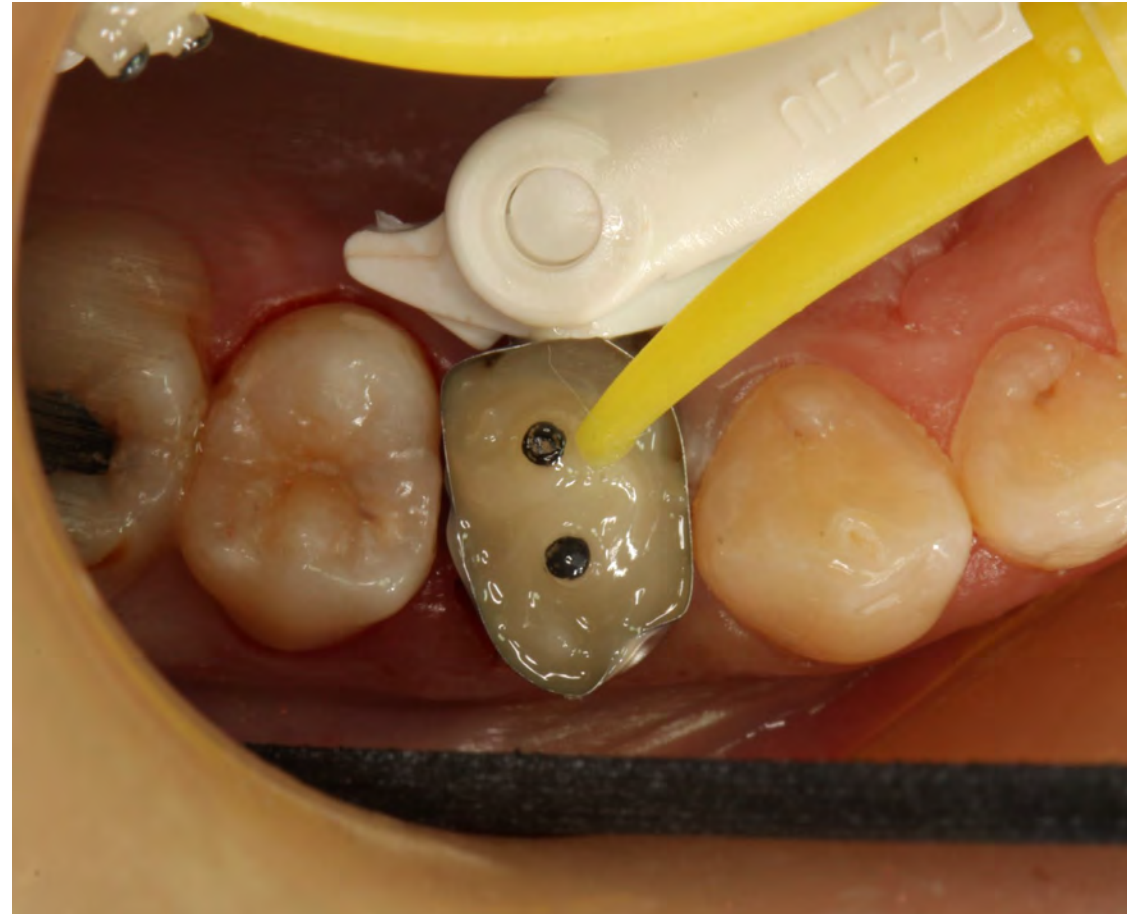
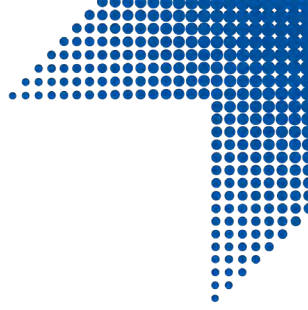


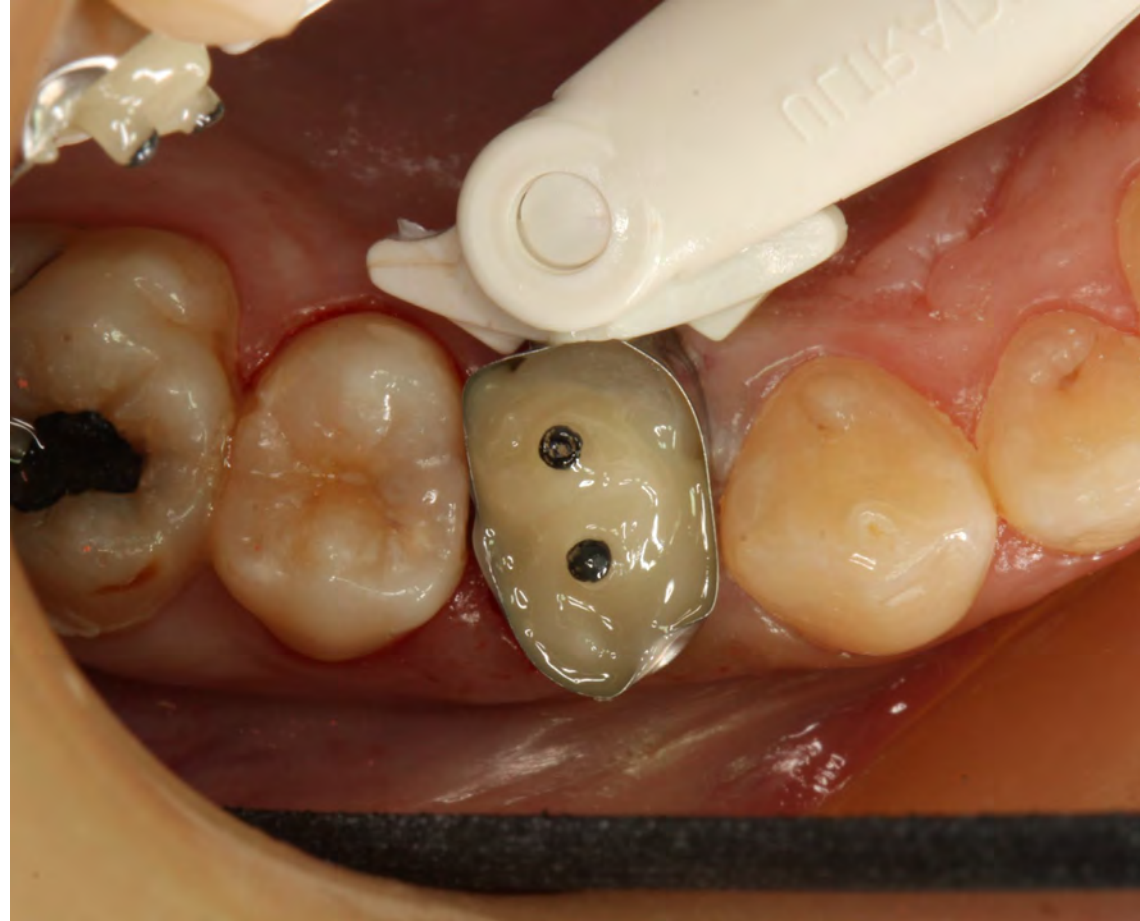
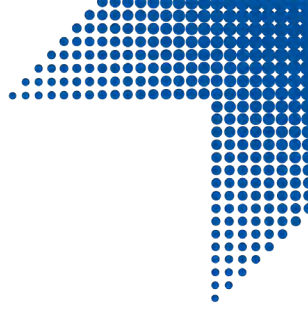


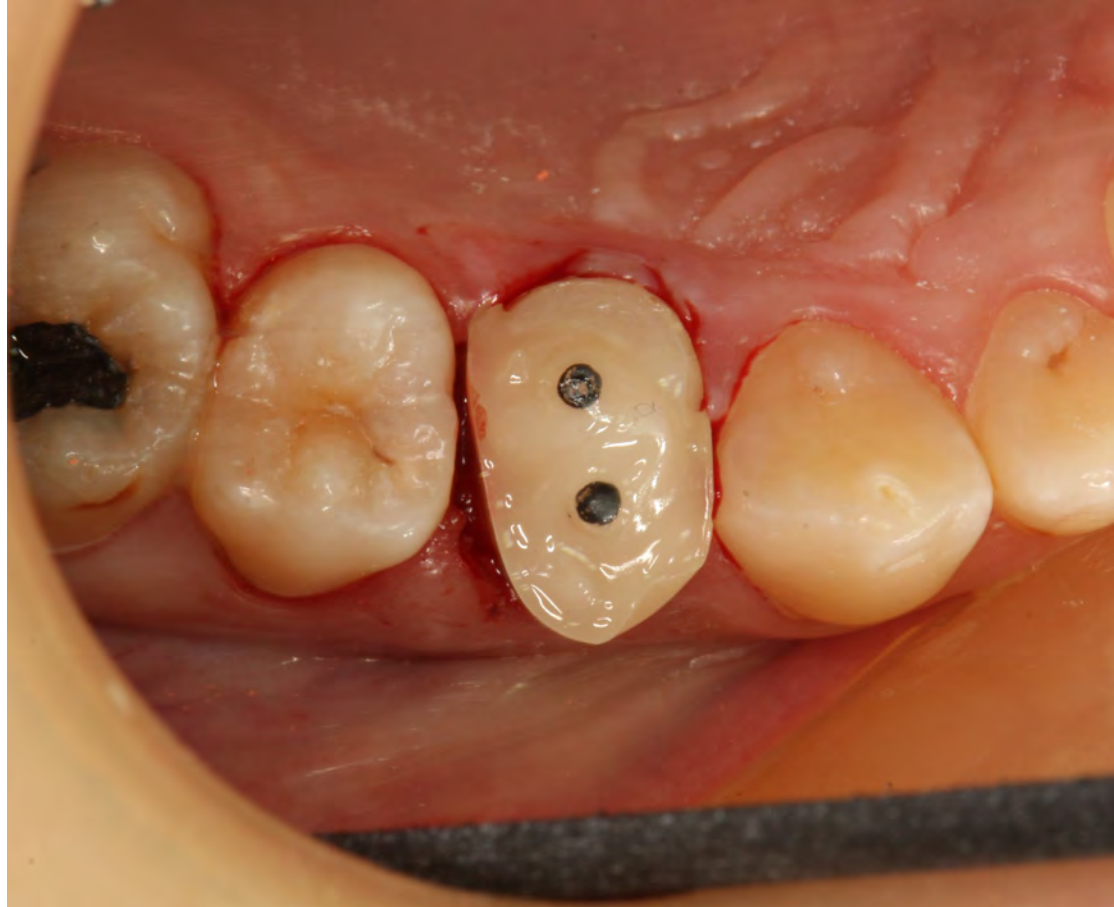
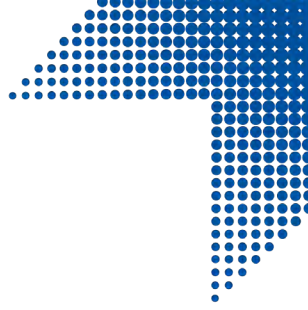


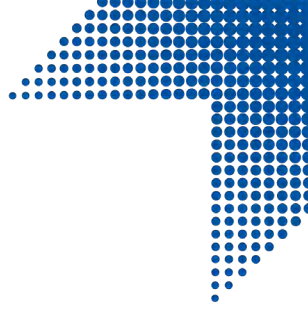


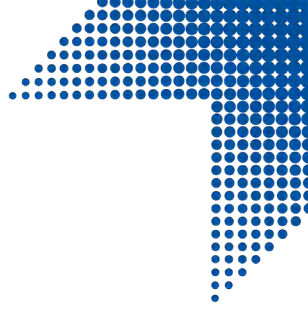


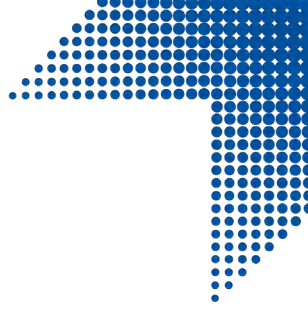








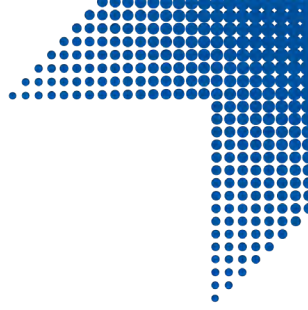


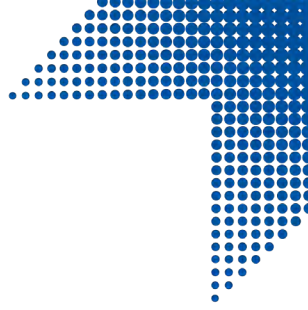


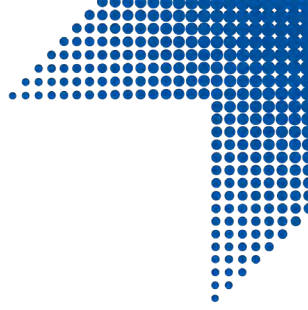
# Case Two

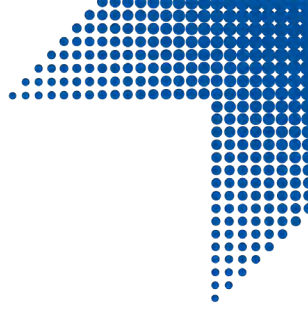
Photos shown in this case are courtesy of Dr. Gary Radz

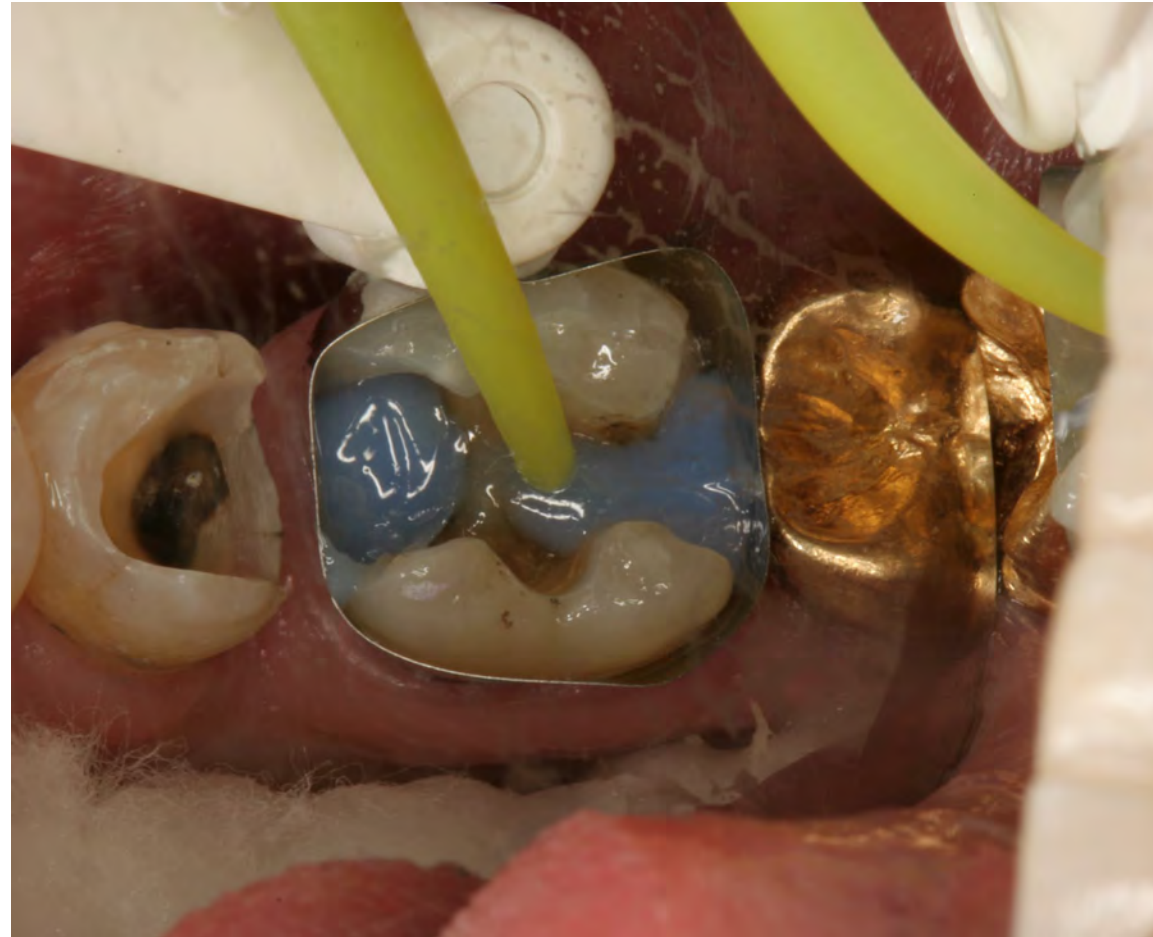
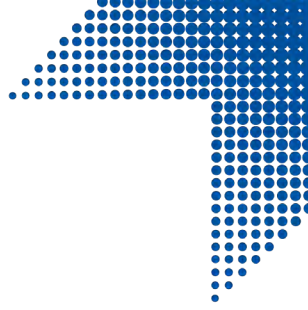


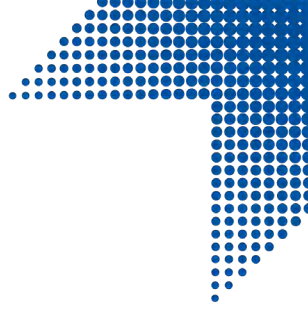


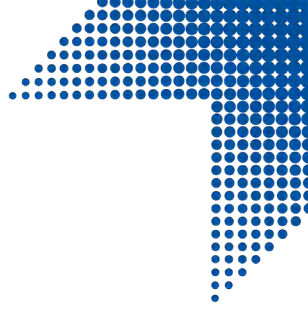














# LuxaBond Total Etch

- ▶ Compatible with self-curing and dual-curing composite resin materials
- ▶ Better adhesion with more reliable total bond strength
- ▶ Pre-Bond facilitates quicker curing in the dentine for superior retention and deeper penetration
- ▶ Indicated for bonding of posts, cores, crowns, bridges, inlays and onlays
- ▶ Easy root canal application with special Endobruses
- ▶ Acetone-free
- ▶ Flexible working time







# LuxaBond-Total Etch Helps You Get It Right The First Time

➤ **Apply Pre-Bond:** Activator; facilitates superior adhesion properties of the system

- Pre-Bond penetrates deeply into dentin and allows for a longer processing time

➤ **Mix Bond A + B:**

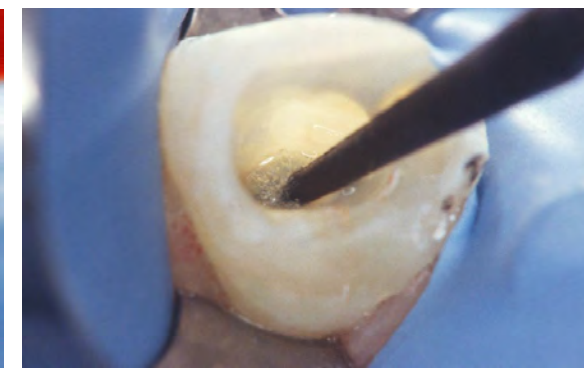
- Reaction starts very slowly
- Good flowability into dentin

➤ **Apply Bond A + B to tooth structure:**

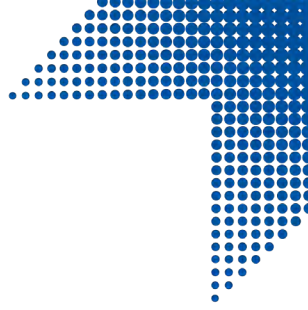
- Quick setting reaction with Pre-Bond
- Improved hybrid zone for higher SBS
- Reliable adhesion between tooth and resin



Applying the Pre-Bond



Bonding the cavity with the mixture of components Bond A & Bond B



# LuxaPost

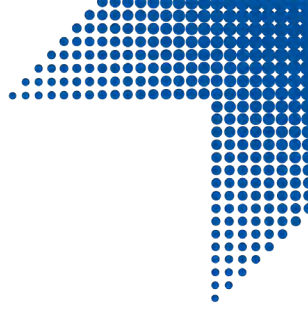
- Dentin-like elasticity
- High flexural modulus, good stability
- Post taper confirms easily to post preparation to mimic tooth structure and minimize fracture risk
- Only one drill per size (no pre-shaping drill necessary)
- User-friendly, color-coded system
- Retention grooves improve mechanical retention
- Transparent for highly esthetic results
- Compatible with self-curing and dual-curing materials





# Monoblock: The Ideal Restorative System

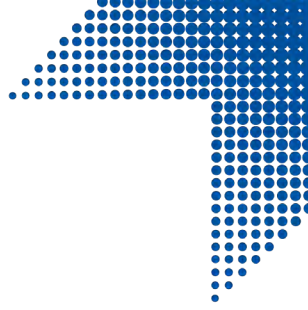




# Monoblock System Advantages

- ↪ Good physical properties: light transmission, flexural strength, elasticity modulus
- ↪ Stress reduction
- ↪ Reduced risk of root fractures
- ↪ Minimized tension peaks
- ↪ Anatomical form for substance saving treatments
- ↪ Protection against bacterial leakage (coronal and apical)
- ↪ Long lasting and beautiful restoration
- ↪ High esthetics
- ↪ Cost saving

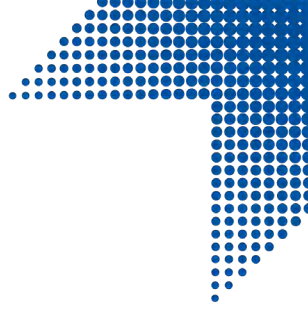




# LuxaCore Z-Dual Product Information



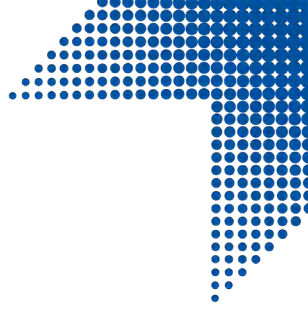
Product & Contents	DMG America Item #
LuxaCore Z-Dual Automix Intro Kit-Natural/A3 (1-48gm Cartridge, 35 each-Automix & Intraoral Tips)	213330
LuxaCore Z-Dual Automix Intro Kit-Blue(1-48gm Cartridge, 35 each-Automix & Intraoral Tips)	213331
LuxaCore Z-Dual Automix Intro Kit-Light Opaque(1-48gm Cartridge, 35 each-Automix & Intraoral Tips)	213332
LuxaCore Z-Dual Smartmix Intro Kit-Natural/A3 (2-9gm Syringe, 10 each-Smartmix & Intraoral Tips)	213334
LuxaCore Z-Dual Smartmix Intro Kit-Blue(2-9gm Syringe, 10 each-Smartmix & Intraoral Tips)	213335
LuxaCore Z-Dual Smartmix Intro Kit-Light Opaque (2-9gm Syringe, 10 each-Smartmix & Intraoral Tips)	213336



# LuxaPost Product Information



Product & Contents	DMG America Item #
LuxaPost Intro Kit (5 each of-1.25mm Posts, 1.375mm Posts, 1.5mm Posts, 1 each of-1.25mm Drill, 1.375mm Drill, 1.5mm Drill, 30-Silicone Stops, 1-Measuring Card)	110780
LuxaPost Refill Kit-1.25 mm (5-1.25mm Posts)	110781
LuxaPost Refill Kit-1.375 mm (5-1.375mm Posts)	110782
LuxaPost Refill Kit-1.5 mm (5-1.5mm Posts)	110783
LuxaPost Refill Drill-1.25 mm (1-1.25mm Drill)	110784
LuxaPost Refill Drill-1.375 mm (1-1.375mm Drill)	110785
LuxaPost Refill Drill-1.50 mm (1-1.5mm Drill)	110786



# LuxaBond Total Etch Product Information



Product & Contents	DMG America Item #
LuxaBond Total Etch Intro Kit (1-1.5ml Pre-Bond, 1-1.5ml Bottle Bond A, 1-1.5ml Bottle Bond B, 1-2ml Syringe Etch Gel Medium Viscosity, 25-Red Endobrushes, 25-Black Endobrushes, 3-Luer Lock Tips, 1 Mixing Palette)	212384
LuxaPost Refill Kit-1.25 mm (5-1.25mm Posts)	212385



# Product Images

