

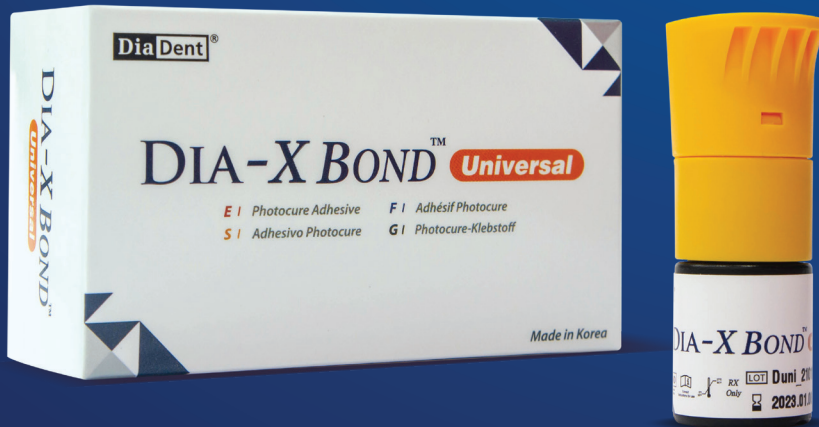
# DIA-X BOND™

**Universal**

*X-traordinary Strength,  
Remarkably Simple.*

## INDICATIONS FOR USE:

- 🦷 All direct restorations:  
Resin-based composite, resin-modified glass ionomers,  
core build-up, resin cement, etc.
- 🦷 All indirect restorations:  
metal, zirconia, glass ceramics, alumina, etc.
- 🦷 Desensitization/Sealing of Tooth
- 🦷 Intra-oral Repair  
(chipped porcelain, additions to direct restorations, etc.)



# DIA-X BOND™

Universal

## FEATURES & BENEFITS



- Exceptional handling properties
- Convenient one-hand flip bottle top
- Saves chair time: true one-bottle bond
- Simple: for all etching techniques
- Versatile: for all direct and indirect restorations
- Uncompromising bond strength
- Low 2-micron film thickness
- Virtually no post-op sensitivity
- Long shelf life and stable in room temperature
- Advanced 10-MDP Monomer

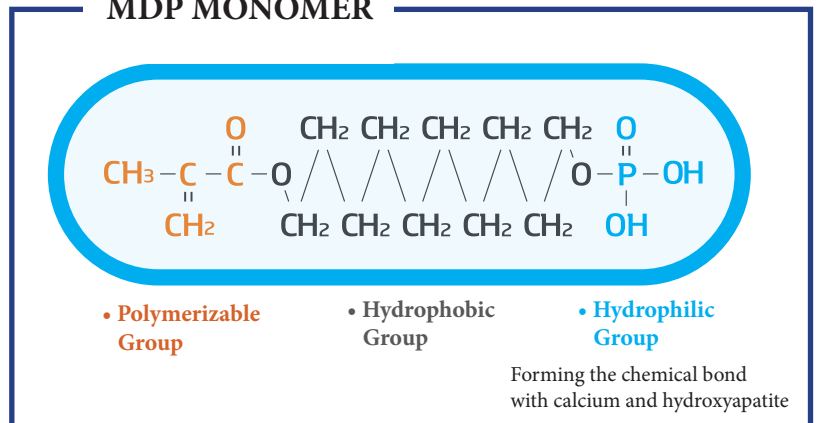
## UNIVERSAL BOND VS. 7TH GENERATION BOND

Universal Bond	7th Generation Bond
Total-, Self-, or Selective-etching	Self-etching
Stable and hydrophilic	Needs to be thoroughly shaken before use
Superior bonding strength	Weak bond to enamel
Indirect restorations, direct restorations (zirconia/metals, 10-MDP as the primary adhesive functional monomer)	Direct restorations only (enamel/zirconia, ceramics, etc.)
Virtually no post-op sensitivity	Some post-op sensitivity
Long shelf life (2 years)	Short shelf life

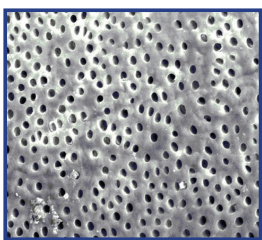
## 10-MDP MONOMER FEATURES

- 10-MDP (10-methacryloyloxydecyl dihydrogen phosphate) is an advanced functional monomer whose chemical structure allows for a polar behavior
- The **hydrophilic group** of 10-MDP forms a very intensive and stable chemical bonds with tooth components because of its molecular structure
- The **hydrophobic group** helps to improve adhesion strength, and stability and long-term retention of restorative materials
- Outstanding bonding strength to metals such as zirconia and alumina
- Excellent bonding strength to teeth (dentin, enamel), indirect restorations (metal, zirconia, alumina), and direct restorations (composite resin)

## MDP MONOMER



## DESENSITIZATION / DENTIN TUBULES OCCLUSION



SEM shows Dia-X Bond Universal's desensitization effectiveness by completely occluding the dentin tubules.

## ORDER INFORMATION

[#A2001-2201] Dia-X Bond Universal  
Content: 1 x 5ml bottle



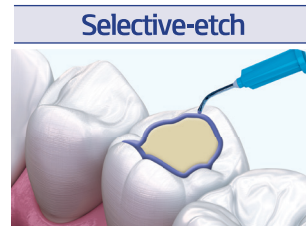
# DIA-X BOND™

## Universal

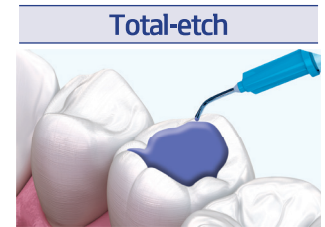
VERSATILITY:  
All Etching Techniques



No phosphoric acid



Phosphoric acid on enamel



Phosphoric acid on enamel and dentin

### STEP-BY-STEP INSTRUCTIONS

#### DIRECT RESTORATION



Prepare & isolate tooth



Etch & wash off excess with water



Apply bond & rub for 20 seconds



Air dry for 5 seconds (do not desiccate)



Light cure for at least 10 seconds



Final restoration

#### INDIRECT RESTORATION

Select an etching technique ▶



Selective-etch



Total-etch

Self-etch >> Start from Step 02 if etchant is not used



Apply bond & rub for 20 seconds



Air dry for 5 seconds (do not desiccate)



Light cure for at least 10 seconds



Apply bond on inlays/onlays



Cementation



Final restoration

#### DESENSITIZATION/SEALING OF TOOTH



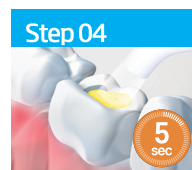
Prepare & isolate tooth



Etch & wash off excess with water  
\*skip if using self-etching method



Apply bond & rub for 20 seconds



Air dry for 5 seconds (do not desiccate)



Light cure



Remove the oxygen-inhibited layer with a cotton pellet moistened with alcohol

#### INTRA-ORAL REPAIR



Prepare surface



Apply bond



Air dry



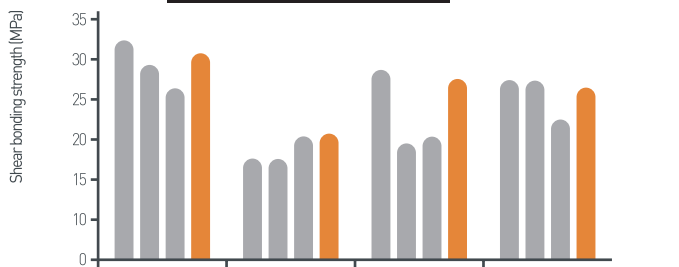
Restoration



Light cure

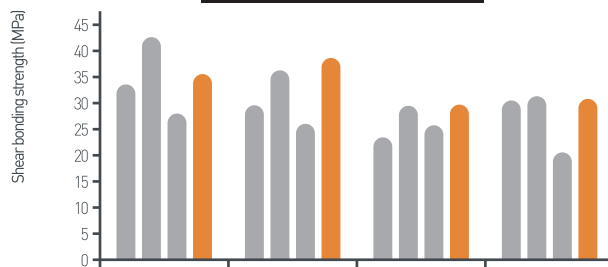
**DIRECT RESTORATION IMMERSION TESTS**

**24H Immersion Test**



	T.E.	S.E.	T.D.	S.D.
Brand A	32.25	17.77	28.96	27.32
Brand B	29.25	17.72	19.59	27.29
Brand C	26.35	20.32	20.32	22.53
<b>Dia-X Bond</b>	<b>30.81</b>	<b>20.83</b>	<b>27.64</b>	<b>26.43</b>

**6mos Immersion Test**



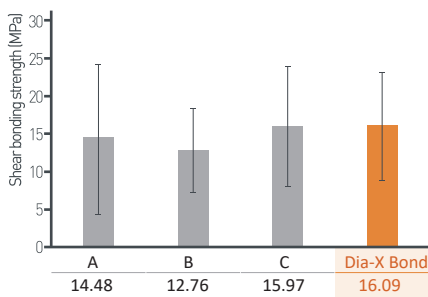
	Initial T.E.	After S.E.	Initial T.D.	After S.D.
Brand A	33.64	29.75	23.24	30.33
Brand B	42.73	36.10	29.49	31.08
Brand C	28.07	26.02	25.80	20.37
<b>Dia-X Bond</b>	<b>35.54</b>	<b>38.47</b>	<b>29.69</b>	<b>30.76</b>

- Conditions:
- Composite resin: DiaFil
  - 37% Etching Gel: DiaEtch
  - Light curing with D-Lux+ (high mode 10 secs)

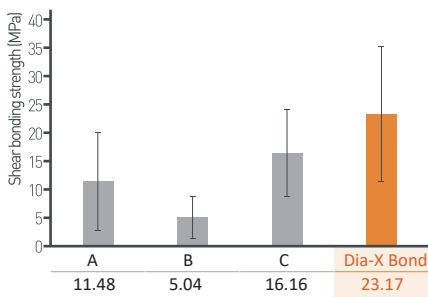
- Conditions:
- Number of specimens: 15 ea
  - Light curing with D-Lux+ (high mode 10 secs)
  - 6 months / 37°C / 1mm/min shear adhesion measurement

Abbreviation: T.E. (Total Etching Enamel) / S.E. (Self Etching Enamel) / T.D. (Total Etching Dentin) / S.D. (Self Etching Dentin)

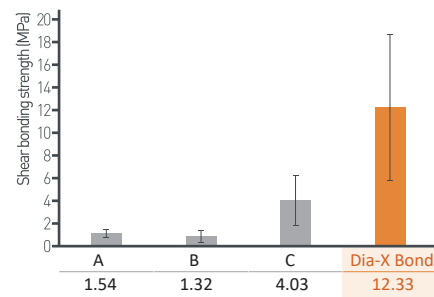
**INDIRECT RESTORATION MATERIAL COMPARISON TESTS**



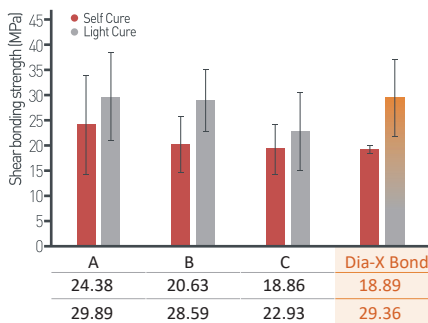
**<Zirconia>**



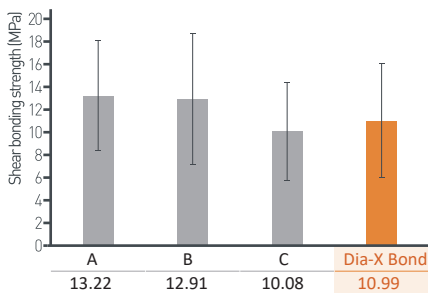
**<Metal>**



**<Ceramic (Porcelain)>**



**<Light Cure Resin Cement>**



**<RMGI>**

**Conditions:**

- Number of specimens: 5 ea
- Light curing with D-Lux+ (high mode 10 secs)
- Resin cement: Self-cure at 6.5 minutes at 37°C
- 24H / 37°C / 0.75 mm/min shear adhesive strength measurement