

G-Premio BOND from GC

Shear bond strength to dentin in self-etch mode, before & after thermocycling (TC)

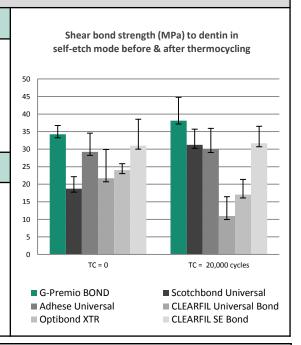
GC Corporation R&D data

What is being tested?

The shear bond strength to dentin in self-etch mode before and after thermocycling, using different universal adhesives: G-Premio BOND (GC), Scotchbond Universal (3M ESPE), Adhese Universal (Ivoclar Vivadent), Clearfil Universal Bond (Kuraray), Optibond XTR (Kerr) and Clearfil SE Bond (Kuraray).

Clinical Significance

- G-Premio BOND obtained the highest shear bond strength values on dentin both before and after thermocycling, compared to the other universal bondings.
- G-Premio BOND also performed better than the gold standard 6th generation adhesive Clearfil SE Bond in both TC conditions.
- A very good intraoral stability of the adhesion on dentin in self-etch mode can be expected when using G-Premio BOND.



Shear bond strength to **enamel** in **self-etch mode**, before & after thermocycling (TC)

GC Corporation R&D data

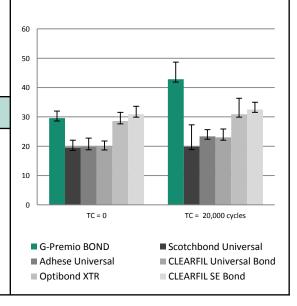
What is being tested?

The shear bond strength to enamel in self-etch mode before and after thermocycling, using different universal adhesives: G-Premio BOND (GC), Scotchbond Universal (3M ESPE), Adhese Universal (Ivoclar Vivadent), Clearfil Universal Bond (Kuraray), Optibond XTR (Kerr) and Clearfil SE Bond (Kuraray).

Clinical Significance

- The bond strength on enamel with G-Premio BOND increases with thermocycling (TC).
- G-Premio BOND obtained the highest shear bond strength values on enamel both before and after thermocycling, compared to the other universal bondings.
- G-Premio BOND also performed better than the gold standard 6th generation adhesive Clearfil SE Bond after TC.
- A very good intraoral stability of the adhesion on enamel in self-etch mode can be expected when using G-Premio BOND.

Shear bond strength (MPa) to enamel in self-etch mode, before & after thermocycling







Shear bond strength to enamel and dentin in total-etch mode before & after thermocycling (TC)

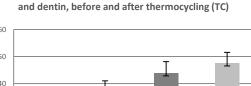
GC Corporation R&D data

What is being tested?

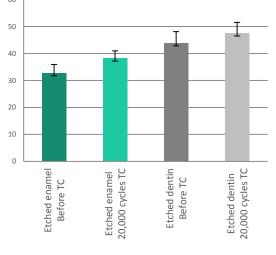
The shear bond strength to tooth structure (enamel and dentin) in total-etch mode, before and after thermocycling using G-Premio BOND (GC).

Clinical Significance

- · G-Premio BOND presents high adhesion values to etched enamel and etched dentin which both increase with thermocycling, showing a good stability of the bond to tooth structure in total-etch mode.
- · The excellent shear bond strength to etched dentin after thermocycling suggests that G-Premio BOND can efficiently infiltrate etched dentin and create a stable adhesion.
- This data confirms that the one-bottle universal bonding G-Premio BOND should perform well over time in total-etch mode.



Shear bond strength (MPa) to etched enamel



Shear bond strength to **indirect substrates** after thermocycling

GC Corporation R&D data

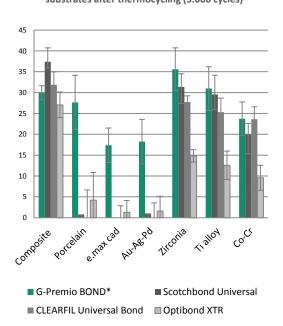
What is being tested?

The shear bond strength to indirect substrates (composite, porcelain, e.max, precious metals, zirconia and nonprecious metals) using different universal adhesives: G-Premio BOND (GC), Scotchbond Universal (3M ESPE), Clearfil Universal Bond (Kuraray) and Optibond XTR (Kerr).

Clinical Significance

- · G-Premio BOND exhibits a high bond strength to all tested indirect substrates after thermocycling, showing a reliable adhesion to all materials.
- · All other universal bondings (used without separate silane as per their respective IFUs) showed close to zero adhesion to porcelain and e.max after thermocycling.
- Thanks to the combination with Ceramic Primer II, G-Premio BOND shows a stable adhesion to all types of
- G-Premio BOND is the only adhesive tested which shows a stable bond to precious metals, thanks to the MDTP monomer in its formulation.
- · This study shows that G-Premio BOND is effective to repair all types of indirect substrates. On hybrid and glass ceramics, it should be used in combination with Ceramic Primer II.

Shear bond strength (MPa) to indirect substrates after thermocycling (5.000 cycles)



* Used in combination with Ceramic Primer II

