
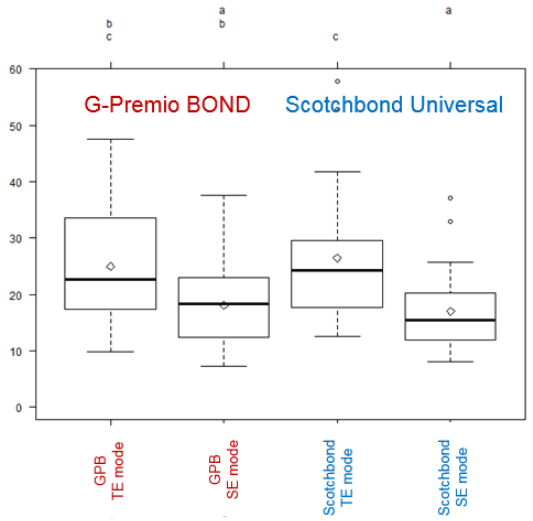

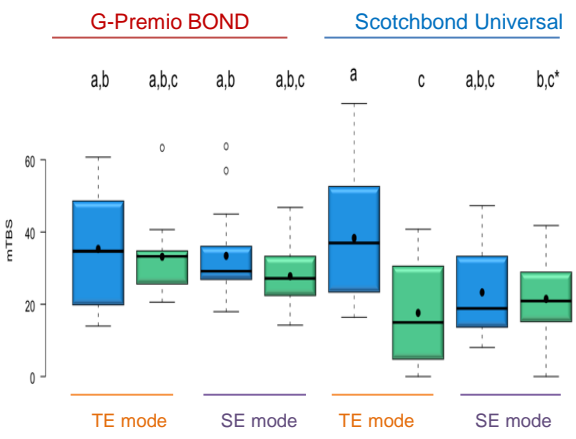




# Scientific Sheet – Independent in vitro studies

## G-Premio BOND

<p>Immediate micro-tensile bond strength to bur-cut enamel Report BIOMAT, Department of Oral Health Sciences, KU Leuven, Belgium, 2016</p> 	
<p><b>What is being tested?</b></p>	
<p>The immediate micro-tensile bond strength to <b>bur-cut enamel</b> in total-etch (TE) and self-etch (SE) modes, with G-Premio BOND (GC) and Scotchbond Universal (3M ESPE).</p>	
<p><b>Clinical Significance</b></p>	<ul style="list-style-type: none"> <li>G-Premio BOND and Scotchbond Universal perform similarly on enamel, regardless of the etching mode used</li> <li>Scotchbond Universal performs better in total-etch than in self-etch mode on enamel</li> <li><b>G-Premio BOND obtains statistically equivalent results in total-etch and self-etch modes on enamel, showing its versatility</b></li> </ul>
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<p>Immediate micro-tensile bond strength to dentin Report BIOMAT, Department of Oral Health Sciences, KU Leuven, Belgium, 2016</p> 	
<p><b>What is being tested?</b></p>	
<p>The immediate micro-tensile bond strength to <b>dentin</b> in total-etch (TE) and self-etch (SE) modes, with G-Premio BOND (GC) and Scotchbond Universal (3M ESPE) and at long (10s) and short (0s) application times.</p>	
<p><b>Clinical Significance</b></p>	<ul style="list-style-type: none"> <li><b>G-Premio BOND performs well in all etching modes and regardless of the application time (10s or 0s)</b></li> <li>Scotchbond Universal is more sensitive to application time than G-Premio BOND when used in total etch mode</li> <li><b>This data shows that G-Premio BOND is less technique-sensitive than Scotchbond Universal</b></li> </ul>
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## Mini-interfacial fracture toughness of G-Premio BOND applied in 1 or 3 layers to bur-cut dentin

Report BIOMAT, Department of Oral Health Sciences, KU Leuven, Belgium, 2016

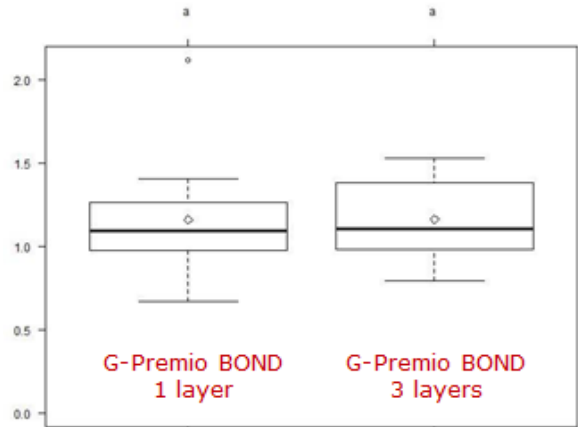


### What is being tested?

The mini-interfacial fracture toughness of G-Premio BOND (GC) to bur-cut dentin when applied in 1 layer (as recommended in IFU) or in 3 consecutive layers.

### Clinical Significance

- The number of layers of G-Premio BOND does not influence the bond strength to dentin
- **One layer of G-Premio BOND is sufficient to ensure optimal adhesion to dentin.**
- Having only one thin layer of adhesive has the following advantages:
  - Simplified procedure
  - Ensuring good aesthetics for direct restorations
  - Ensuring a perfect seating for indirect restorations



## Marginal analysis at the enamel margins of Class I cavities

Report Dr Blunck, Charité University (Berlin), Germany, 2016

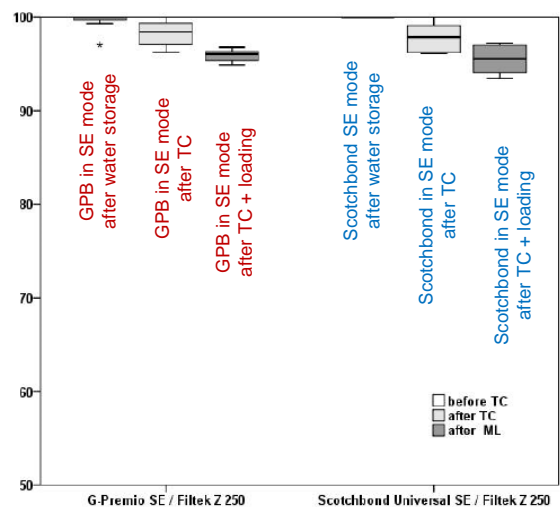


### What is being tested?

The integrity of **enamel** margins in **Class I** cavities when using G-Premio BOND (GC) and Scotchbond Universal (3M ESPE) in the following conditions: after water storage, after thermocycling (TC) and after TC + loading.

### Clinical Significance

- All samples were stored in water and tested before & after thermocycling (2000 cycles) and mechanical loading (150.000 cycles with 50 N)
- Both G-Premio BOND and Scotchbond Universal displayed a very high amount of continuous margins on enamel after thermocycling & mechanical loading
- **This highlights that G-Premio BOND shows an excellent marginal integrity on enamel in Class I cavities**
- Note: Although Scotchbond Universal also shows a good marginal integrity on enamel, GC R&D data showed it has a poor performance on ceramics (silane inside bonding).





## Marginal analysis at the dentin margins of Class V cavities

Report Dr Blunck, Charité University (Berlin), Germany, 2016

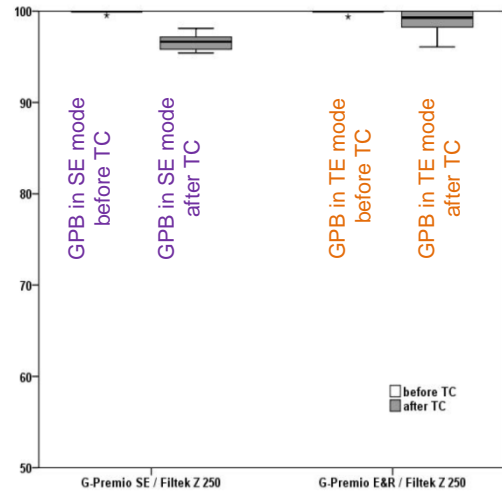


### What is being tested?

The integrity of **dentin** margins in **Class V** cavities when using G-Premio BOND (GC) in total-etch (TE) and self-etch (SE) modes, before and after thermocycling (TC).

### Clinical Significance

- All samples were stored in water and tested before & after thermocycling (2000 cycles)
- G-Premio BOND displayed a very high amount of continuous margins on dentin after thermocycling, both in self-etch and total-etch modes
- No gap was observed after TC in any of the etching modes
- Even after tough clinical challenges, we can expect the material to provide a high success rate
- **This highlights the great marginal integrity of G-Premio BOND on dentin**



## Marginal analysis at the enamel margins of Class V cavities

Report Dr Blunck, Charité University (Berlin), Germany, 2016



### What is being tested?

The integrity of **enamel** margins in **Class V** cavities when using G-Premio BOND (GC) in total-etch (TE) and self-etch (SE) modes, before and after thermocycling (TC).

### Clinical Significance

- All samples were stored in water and tested before & after thermocycling (2000 cycles)
- G-Premio BOND displayed a very high amount of continuous margins on enamel after thermocycling, both in self-etch and total-etch modes
- No gap was observed after TC in any of the etching modes
- Even after tough clinical challenges, we can expect the material to provide a high success rate
- **This highlights the great marginal integrity of G-Premio BOND on enamel**

