References


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Kuraray Europe GmbH

CLEARFIL™ SE BOND – 8 year clinical report

8 YEAR CLINICAL REPORT

CLEARFIL™ SE BOND – Excellent 8 year clinical performance

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Outstanding 8 year clinical performance

CLEARFIL™ SE BOND is a light-curing, two-step self-etching adhesive consisting of a self-etching primer and a bonding agent. Ten years have passed since its launch, and CLEARFIL™ SE BOND has become one of the most reliable products on the market. It is generally recognized as a Golden Standard for self-etching products.

The outstanding results of a study conducted by Prof. B. Van Meerbeek et al were recently released. After 8 years, the clinical effectiveness was still excellent (97% retention rate), with selective acid-etching of the enamel margins only having some minor effects on secondary clinical parameters (Figure 1).

Furthermore, the primer of CLEARFIL™ SE BOND does not excessively damage the collagen structure of the dentin cavity wall. Thanks to the low technique sensitivity of the self-etching primer and the high sealing ability of the bonding agent, CLEARFIL™ SE BOND is able to provide excellent long-term clinical results.

Figure 2 is also taken from the study by Prof. B. Van Meerbeek et al. CLEARFIL™ SE BOND is categorized as 2-step self-etch (mild/intermediately strong), and its annual failure rate (%) is at the lowest level among the listed bonding categories. [* Glass ionomer cement is not often used for Class-V restorations. Glass ionomer cement displays a good bonding performance, but it is obvious that a composite resin restoration provides better wear resistance, less water sorption, and less discoloration compared to glass ionomer cement].

Reasons for excellent performance

The acidity of the self-etching primer is at an optimum level and thus allows the simultaneous treatment of both enamel and dentin layers in one step. This enables significant etching of the enamel cavity wall in order to ensure good bonding. Regarding the enamel bonding, etch-rinse systems rely only on the mechanical interlock using the phosphoric acid. Generally speaking, the etching property of self-etching bonding systems is milder compared to etch rinse systems. On the other hand, CLEARFIL™ SE BOND contains MDP which creates a strong chemical bond with the hydroxyapatite in addition to the mechanical interlock. That is why CLEARFIL™ SE BOND shows such excellent long-term clinical results without selective etching.

Moreover, the primer of CLEARFIL™ SE BOND does not excessively damage the collagen structure of the dentin cavity wall. Thanks to the low technique sensitivity of the self-etching primer and the high sealing ability of the bonding agent, CLEARFIL™ SE BOND is able to provide excellent long-term clinical results.

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