

**PREP**

# Clinical evaluation of Clearfil SE Bond

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The PREP (Product Research and Evaluation by Practitioners) Panel was formed ten years ago and operates from the Primary Dental Care Research Group of the Birmingham School of Dentistry. The panel regularly evaluates well-known materials used by all of us in day-to-day general practice. Shrewdly selected mature GDPs act as the evaluators and the materials are usually "on trial" for at least a couple of months in order to maximise the accuracy and reliability of the findings.

We are extremely pleased to publish the major points of the panel's findings regarding the revolutionary self-etching primer, Clearfil SE Bond.

AAHG

UNTIL recently most dentine bonding agents have required that the dentine surface first be etched with phosphoric acid. This meant the operator had to wash off the etchant and dry the tooth surface before applying the bonding agent.

Dentine bonding agents that do not need a separate etching stage – by using low-pH primers – have become known as self-etching primers. Among their advantages is the removal of the washing and drying steps, with a consequent saving in time and technique sensitivity as the degree of wetness

of the substrate surface is not critical.

One of these self-etching primers is Clearfil SE Bond, manufactured by Kuraray and distributed in the UK by J&S Davis. This paper reports on the evaluation of the handling of Clearfil SE Bond by a group of GDPs from the PREP Panel.

## Methods

Twelve members of the PREP Panel were selected at random for participation in this evaluation; they had been graduated for an average of 23 years. They were asked to use the materials for ten weeks and then

complete and return a questionnaire.

All the evaluators currently used a dentine bonding system, some as many as three different ones. The principal reasons for the choice of these materials were good results and ease of use, although other reasons reported were good published data, no sensitivity, from reputable companies, and compatibility with the restorative material of choice.

## Evaluation of Clearfil SE Bond

The evaluators rated the presentation of the material as follows:

Excellent

4.8

5

They rated the printed instructions as follows:

Excellent

4.8

5

Poor

1

Poor

1

The majority used the dispenser case and, of those, 67% found it easy to use.

The total number of restorations placed during the evaluation was 967: Class I – 233, Class II – 146, Class III – 214, Class IV – 90 and Class V – 284. Five of the evaluators used the material for the pre-treatment of indirect restorations, seven for the treatment of dental hypersensitivity and three for the repair of fractured porcelain.

All the evaluators who used the primer liquid dispenser said it worked satisfactorily. Eight said the primer liquid was easily applied to the brush tip and ten that it was easily applied to the tooth surface. However seven mentioned that the primer did not give a "frosty" appearance.

The evaluators rated the bonding liquid as follows:

Too viscous

3.1

5

Too thin

1

Importantly all the evaluators said the bonding liquid was easily applied to the tooth surface.

Significantly nine evaluators regarded the application of Clearfil SE to be better than other resins that they had tried. Six said that Clearfil SE Bond was faster than their normal bonding system and six said that it was slower. Everyone stated that their dental nurses had no

difficulties with Clearfil SE Bond. The ease of use of Clearfil SE Bond was rated as follows:

Easy to use

4.6

5

Difficult to use

1

Final comments included:

"Fantastic product – couldn't keep it in the surgery! Associates and partners used it as well. Makes fissure sealing easy. Five star!"

"Excellent system with clear instructions. Easy for surgeon and nurse"

and interestingly "There is a need to convince practitioners this product is different – perhaps larger evidence-based trials needed"

## Discussion and conclusions

The lack of a "frosted" appearance was noted by seven evaluators and prompted the comment that perhaps a visual indication that the material had "worked" was needed. The lack of the need to wash off etchant was seen as a distinct advantage by most evaluators.

That the material was well received is indicated by the high scores achieved throughout the evaluation. Despite not being told the cost of the product, eight evaluators said that they would buy Clearfil SE Bond.

## Manufacturer's comment

J&S Davis welcomes the views of the PREP Panel and is delighted that they embraced the concept of self-etching, which was a new idea to most. We feel that Clearfil SE Bond was well accepted clinically by the most. We feel that Clearfil SE Bond was much appreciated.

