

PREP Panel Clinical Evaluation

One Up Bond F

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Product under evaluation

One Up Bond F

Description

Dentine bonding system

Manufacturer

Tokuyama Dental Corp,
1-38-9 Taito-ku, Tokyo, Japan

UK supplier

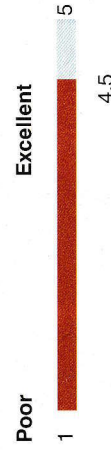
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Cardiff CF24 3DT
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Fax: 02920 482139
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Methods

Twelve members of the PREP (Product Research and Evaluation by Practitioners) Panel were selected at random for participation in this evaluation, the average time since graduation being 23 years.

Explanatory letters, questionnaires and packs of the One Up Bond F were distributed in June 2003. The practitioners were asked to use the materials and return the questionnaire.

The printed instruction leaflet was rated as follows:



Evaluators commented: "Pictorial instructions preferable" and "Laminated instruction card please".

One Up Bond F in clinical use

The total number of restorations placed during the evaluation was 931:

Class I	163
Class II	193
Class III	181
Class IV	146
Class V	248

When asked if One Up Bond F was used for other applications, three evaluators said they used it for pre-treatment of indirect restorations before adhesive cementation, for the treatment of dental hypersensitivity and for the repair of fractured porcelain. Other uses cited were for fissure sealants, bonding a composite facing onto an old inlay, and direct bonding of a fractured tooth.

All the evaluators said that the dispenser

All 12 evaluators currently used a dentine bonding system. A variety of systems were being used and three evaluators used as many as three. The principal reasons for the choice of these materials were good results and ease of use. The ease of use of the currently used bonding system was rated as follows:



The number of dentine bonded restorations placed by the evaluators in a typical week was:

Number of restorations	Number of respondents
<10	0
10-15	5
16-20	0
>20	7

Presentation of material

Evaluators rated the presentation of the material as follows:

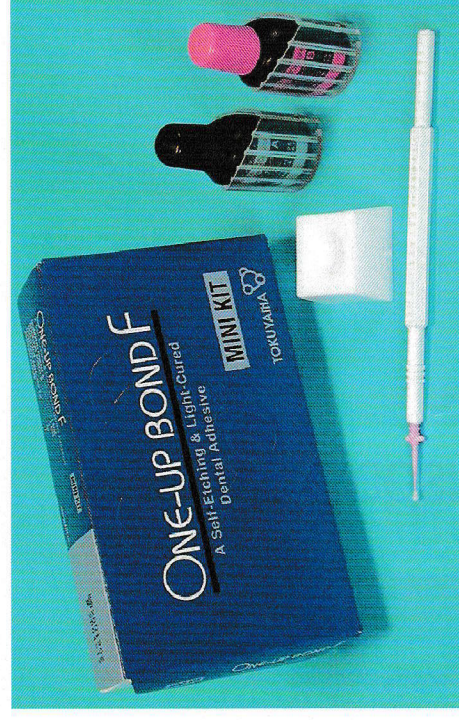


One evaluator would have preferred a matt black cover for the mixing crucible. Other comments included "Why not a plastic box? Cardboard lid tore".

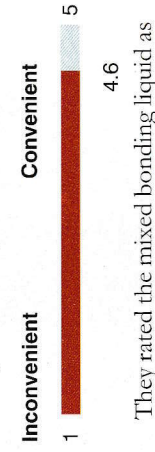
The evaluators rated the instruction chart on the box lid as follows:



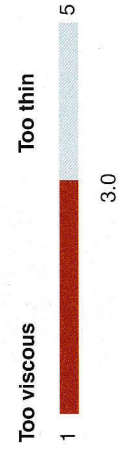
Comments included: "Excellent", "No indication of necessity for thinning or rinsing" and "Does not instruct DSA to shake bottle if not used for a while eg over weekend".



assessed the dispensing and handling of the One Up Bond F liquids as follows:



They rated the mixed bonding liquid as follows:



All the evaluators said the bonding liquid was easily applied to the tooth surface, though one commented: "Not sure whether to air blow or not – a little 'pooling'". Ten of them said that the primer did not give a "frosty" appearance. Nine felt that One Up Bond F had an advantage over other

Presentation

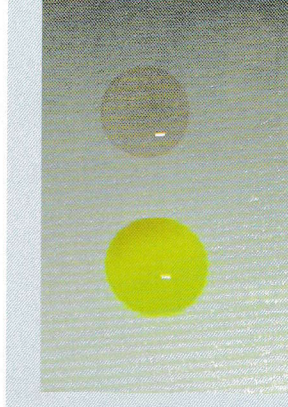
The presentation of the material, the box lid instructions and the printed instructions all scored highly (4.3, 4.7 and 4.5 respectively on a visual analogue scale [VAS]).

Discussion and conclusions

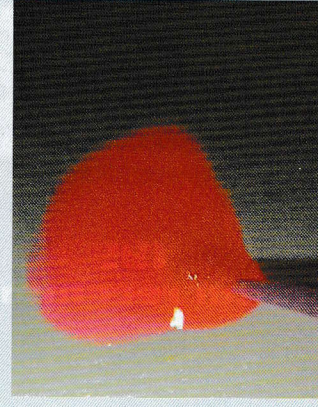
The One Up Bond F system has been subjected to an extensive evaluation in clinical practice by 12 members of the PREP panel in which 747 restorations were placed. Based on this the following conclusions may be made:

evaluators said that the liquids from bottles A and B mixed easily together. All 12 said that the different colours of the liquids facilitated mixing and several commented "Excellent idea".

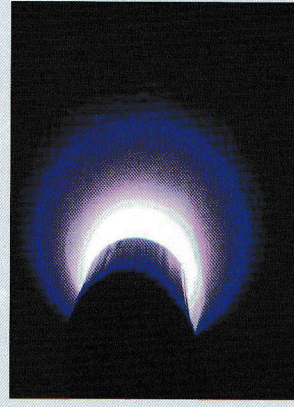
The evaluators and their dental nurses



The liquids from each bottle are of different colours, facilitating easy visual confirmation of mixing



The mixed liquid is pink, changing to tooth coloured on light curing



Light curing results in a change of colour to dentine shade

When comparing the application of One Up Bond F mixed bonding liquids with previously used resins, the result was:

Better	6
Worse	1
Messier	2
Less messy	3

Comments included: "Mix spread thinly over the edges of cavities", "Didn't like the shade of it" and "Noticed excess on cavity margins".

Five evaluators thought One Up Bond F was faster than their normal bonding system and five thought it was the same; two said it was slower. Nine said their dental nurses had no difficulties using One Up Bond F and eight said they would buy the material at average cost.

One evaluator reported that the layer of bonding agent did not become clear on light curing. The co-ordinators of the project contacted the manufacturers to ascertain the reason for this, which was that One Up Bond F has an in-built mechanism that prevents the layer of bonding agent from going clear if it receives insufficient light curing. Accordingly the evaluator was contacted and advised to check the intensity of her light-curing unit.

Comments from the evaluators on changes they considered essential to the acceptability of One Up Bond F included: "Smell too pungent", "Disposable wells to take away risk of cross infection" and "Prefer a clear colour".

Evaluators rated the ease of use of One Up Bond F as follows:



Final comments from the evaluators included: "Excellent material which appears slightly fluorescent under curing light", "I'm

All the evaluators stated that bottles A and B dispensed satisfactorily and the majority said that the liquids mixed easily together. All the evaluators said the different colours of the liquids facilitated mixing. The mixed bonding liquids scored well for dispensing and handling (4.6 on a VAS) and rated the ideal score for viscosity (3.0 on a VAS).

General comments

That the material was well received is indicated by the high scores achieved throughout the evaluation as well as a high overall score for ease of use when compared to the pre-evaluation dentine bonding systems (4.5 to 4.3 on a VAS). That eight evaluators said they would buy One Up Bond F endorses the favourable reception of the product.

Manufacturer's comments

Sunao Urabe, President,

Tokuyama Dental Corporation

Tokuyama Dental Corporation is very satisfied with the results of this evaluation. In order to avoid technique sensitivity, One Up Bond F is designed to provide visual confirmation features for each required step. The results of the evaluation indicated that it does indeed satisfy such criteria. Many of the comments provided were very positive, which gave us not only confidence, but also inspiration for further development. Advanced chemistry is the backbone of our company and we will continue to develop products such as One Up Bond F to help quality dental practices in the UK and around the world.