Light-Cure, Self-Etching Bonding Agent

**CLEARFIL SE Protect**

**SE Protects Your Patients.**

**Features from CLEARFIL SE BOND**
- Virtually no post-operative sensitivity
- Excellent bond strength for enamel and dentin
- Fast and simple procedure with low technique sensitivity

**Advanced New Features**
- Antibacterial cavity cleansing effect
- Fluoride-releasing properties
- Higher, more durable bond than CLEARFIL SE BOND

*Formerly called CLEARFIL PROTECT BOND*
Antibacterial Cavity Cleansing Effect from MDPB

Studies show that the risk of bacteria remaining in a cavity tends to increase with the smaller, “minimal intervention” cavities\(^1\). Many doctors are using cavity cleansers, such as Consepsis (Ultradent) to address this tendency. CLEARFIL SE Protect contains a new functional monomer MDPB, which exhibits an “Antibacterial Cavity Cleansing Effect.” The antimicrobial effect with CLEARFIL SE Protect is greater than with current cavity cleansers as shown in Fig. 1, and is biologically safe because MDPB is fixed and will not leak after curing\(^2\). In addition, CLEARFIL SE Protect is a cost and time saver by eliminating extra steps.

1) S. Imazato; Dent. Mater. J., 28(1), 11-19, 2009

Fluoride-Releasing

CLEARFIL SE Protect contains a patented***, specially treated sodium fluoride (NaF); the NaF in CLEARFIL SE Protect is coated with a unique polymer capsule that allows release of the NaF while the bonding layer physical properties, including strength, are maintained.

CLEARFIL SE Protect makes an “acid-base resistant zone” (called Super Dentin) interface between the bond and dentin behind the hybrid layer (Fig. 3, SEM image), as a result of the fluoride-release. Etch & rinse (total-etch) products like Adper Single Bond cannot make this zone\(^3\) \(^4\). This zone is 1.2µm which is thicker than the hybrid layer and very important for resisting the acid generated by bacteria if microleakage does occur\(^3\) \(^4\).

3) K. Waidyasekera, J. Tagami et al., J. Dent. (37), 604-609, 2009

*** Patent number: US5908879
**Features from CLEARFIL SE BOND**
for Predictable Treatment

**Virtually No Post-Operative Sensitivity**

Studies evaluating post-operative sensitivity of CLEARFIL SE Protect were published by Dr. Türkün, Ege Univ. School of Dentistry (Turkey) and THE DENTAL ADVISOR. The results reported that no post-operative sensitivity was experienced during one year⁵ and during 6 weeks⁶ evaluation period, respectively. The image in Fig. 4 was created using Transmission Electron Microscopy (TEM) technology. It clearly shows that CLEARFIL SE Protect bonds strongly to dentin. No gaps is a key factor in preventing post-operative sensitivity.

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⁵) L. S. Türkün et al. JADA Vol. 136, 657-664 2005
⁶) The Dental Advisor, Vol. 21, No. 8, Oct. 2004

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**Superior Bond Strength and Durability**

The test results of tensile bond strength (Fig. 5) show that CLEARFIL SE Protect has clear advantages regarding bond strength and durability compared with 3- or 2-step total-etch (etch and rinse) bonding agents, such as Adper Scotchbond Multi-Purpose* (3-step) or Adper Single Bond* (2-step), and 1-step self-etch such as i Bond*.

In addition, CLEARFIL SE Protect showed excellent clinical performance in high stress bearing areas for at least five years⁷.

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**Fig. 5** Tensile bond strength of adhesives to enamel and dentin.
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## Ordering Information

### Kits

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<td>#2870KA</td>
<td>CLEARFIL SE Protect Kit</td>
<td>6ml x 1 CLEARFIL SE Protect PRIMER, 5ml x 1 CLEARFIL SE Protect BOND, 2 Brush tip handles, 1 Mixing dish, 1 Light-blocking plate, 1 Outer case, 100 Disposable brush tips</td>
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<tr>
<td>#2872KA</td>
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### Refills

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