

CLEARFIL™ SE PROTECT

The antibacterial bond system



BORN IN JAPAN

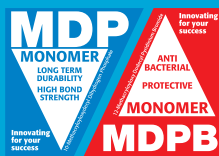
SE PROTECTS YOUR PATIENTS

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 FEATURES

- ✓ Antibacterial cavity cleansing effect
- ✓ Fluoride-releasing properties
- ✓ Higher, more durable bond than CLEARFIL™ SE BOND



ADVANCED FEATURES FOR MORE CONFIDENCE

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” cavities¹. 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 curing². In addition, CLEARFIL™ SE Protect is a cost and time saver by eliminating extra steps.

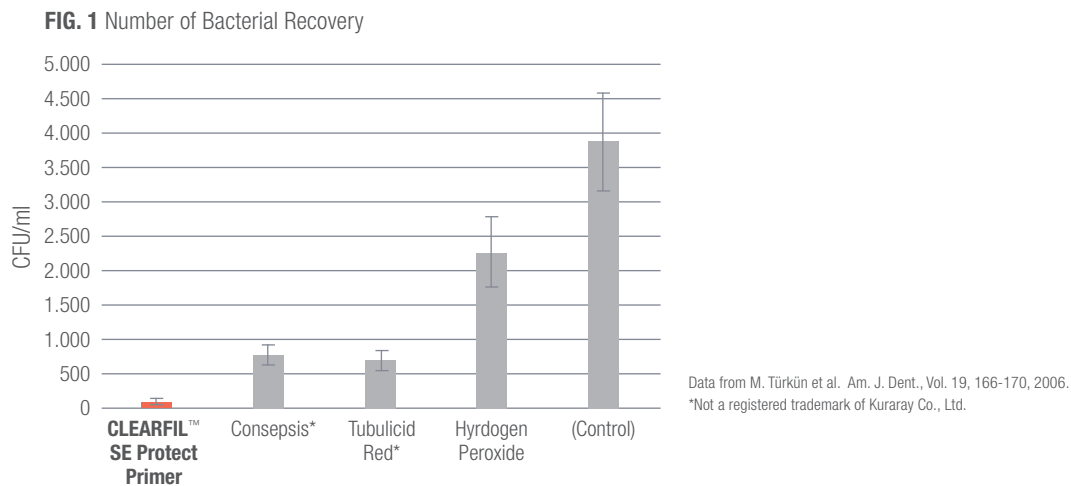
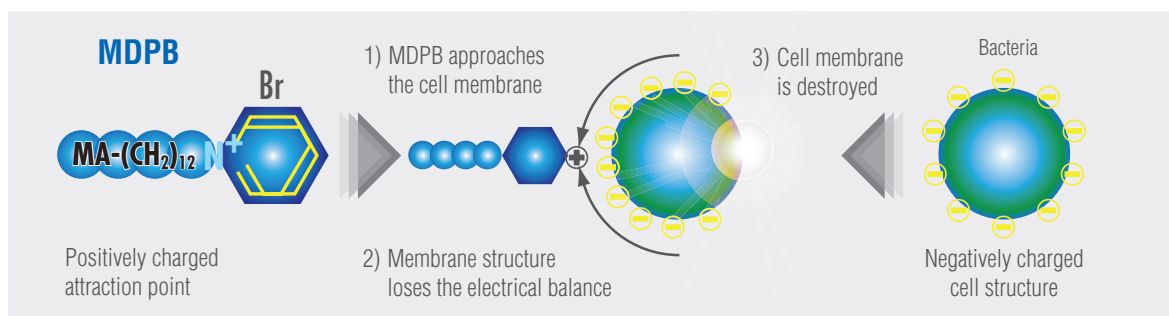


Fig. 2 The bactericidal mechanism of MDPB is presumed to be similar to the well-know antibacterial agent CPC (Cetyl pyridinium chloride), which is in many toothpastes and mouth rinses.



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

² E.A. Koulaouzidou et al.: J. Contemp Dent. Pract., 9(7), 57-64, 2008.

SIMPLE & EASY



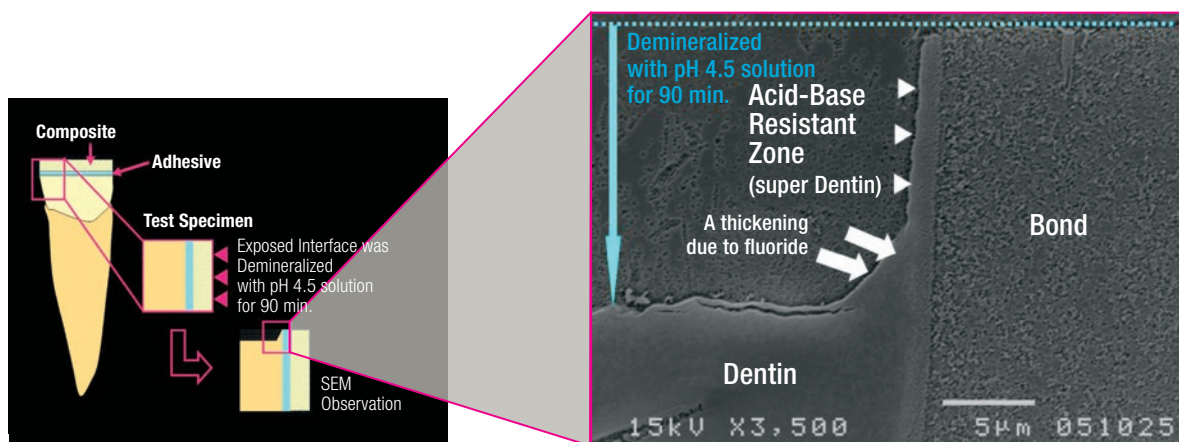
FLUORIDE-RELEASING

CLEARFIL™ SE Protect contains a 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}.

* Patent number: EP0821931 B1

Fig. 3 SEM image after soaking in a mild acid condition



Courtesy of G. Inoue, T. Nikaïdo and J. Tagami, Tokyo Medical and Dental University, Japan

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

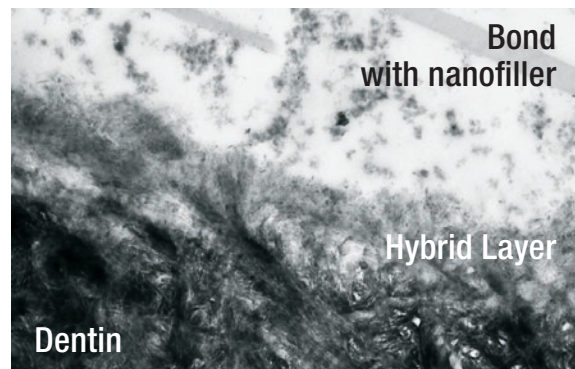
⁴ T. Nikaïdo, J. Tagami et al., Biomed Mater Eng, 2009;19(2-3):163-71

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.

Fig. 4 TEM Micrograph

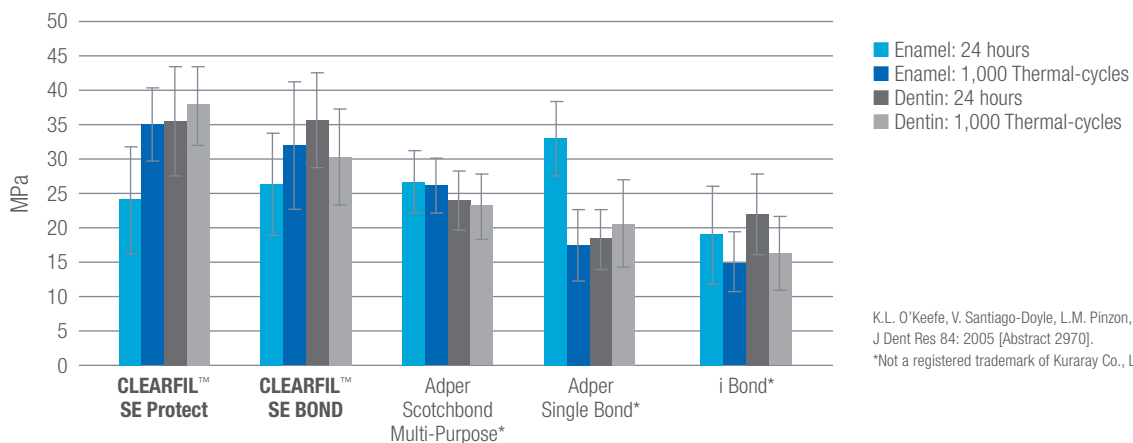


Courtesy of Dr. Hidehiko Sano, et al., Hokkaido Univ. Japan

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).

Fig. 5 Tensile bond strength of adhesives to enamel and dentin.



K.L. O'Keefe, V. Santiago-Doyle, L.M. Pinzon, J.M. Powers. J Dent Res 84: 2005 [Abstract 2970].

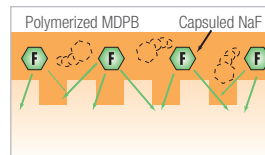
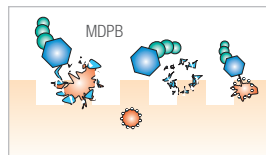
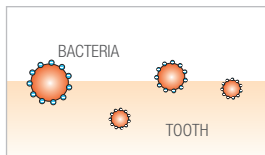
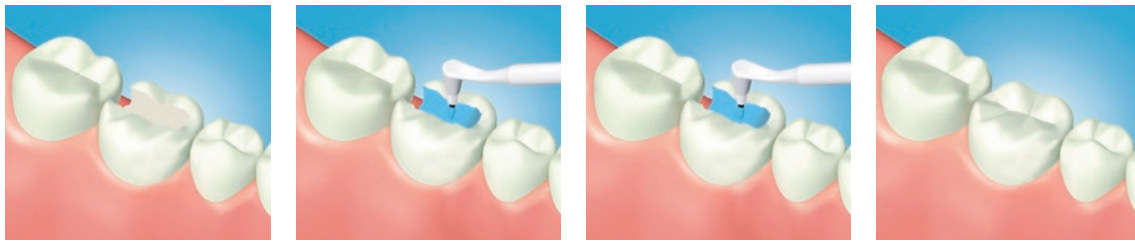
*Not a registered trademark of Kuraray Co., Ltd.

⁵ L. S. Türkün et al. JADA Vol. 136, 657-664 2005

⁶ The Dental Advisor, Vol. 21, No. 8, Oct. 2004

⁷ L. S. Türkün: J. Dent. Res. 2008, IADR abstract 0623

BASIC PROCEDURE



- Apply PRIMER and leave for 20 sec.
- Dry with gentle air flow

- Apply BOND
- Air flow gently
- Light-cure for 10 sec.

ORDERING INFORMATION

#2870-EU CLEARFIL™ SE Protect KIT

Content: 1 Primer (6 ml), 1 Bond (5 ml), 50 x 2 Disposable brush tips, 1 Brush tip handle (white), 1 Brush tip handle (black), 1 Mixing dish, 1 Light blocking plate, 1 Outer case

#968-EU CLEARFIL™ BRUSH TIPS PACK

50 tips

#3250-EU CLEARFIL™ DC ACTIVATOR

1 bottle (4 ml)



#2872-EU CLEARFIL™ SE Protect Value Pack

Content: 3 Primer (6 ml), 3 Bond (5 ml), 50 x 6 Disposable brush tips, 1 Brush tip handle (white), 1 Brush tip handle (black), 1 Mixing dish, 1 Light blocking plate, 1 Outer case.

#2881-EU CLEARFIL™ SE Protect Bond

1 bottle (5ml)

#2882-EU CLEARFIL™ SE Protect Primer

1 bottle (6ml)





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- Before using this product, be sure to read the Instructions for Use supplied with the product.
- The specifications and appearance of the product are subject to change without notice.
- Printed color can be slightly different from actual color.

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