



DENTAL BONDING AGENT

# **CLEARFIL™ S<sup>3</sup> BOND PLUS** Flow Chart Sheet

[CLEARFIL TRI-S BOND PLUS]



KURARAY MEDICAL INC.  
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## **Case A**

Direct restorations using light-cured composite resin

## **Case B**

Cavity sealing as a pretreatment for indirect restorations

## **Case C**

Treatment of exposed root surfaces

## **Case D**

Intraoral repairs of fractured restorations made of ceramic, hybrid ceramics or composite resin

## **Case E**

Surface treatment of prosthetic restorations made of ceramic, hybrid ceramics or composite resin

## **Case F**

Surface treatment of dental posts

## **Case G**

Post cementation and core build-ups using dual-cured composite resin **CLEARFIL™ DC CORE PLUS**

## **Case H**

Core build-ups using light-cured composite resin

## Case A

DENTAL BONDING AGENT  
**CLEARFIL S<sup>3</sup> BOND PLUS**  
[CLEARFIL TRI-S BOND PLUS]

KURARAY MEDICAL INC.

## Direct restorations using light-cured composite resin

Follow the standard procedures for moisture control, cavity preparation and pulp protection

<p><b>1</b> Apply BOND to the cavity wall</p> <p>10sec.</p> 	<p><b>2</b> Dry with mild air*<sup>1</sup></p> <p>more than 5sec.</p> 	<p><b>3</b> Light-cure*<sup>2</sup></p> <p>10sec.</p> 
<p><b>4</b> Place composite resin, light-cure and finish</p> 		

- \* 1 Dry the entire cavity wall sufficiently until BOND does not move. Use a vacuum aspirator to prevent BOND from scattering.
- \* 2 For dental curing unit details refer to the instructions for use.

**Case B**

DENTAL BONDING AGENT  
**CLEARFIL™ S' BOND PLUS**  
[CLEARFIL TRI-S BOND PLUS]

KURARAY MEDICAL INC.

**Cavity sealing as a pretreatment for indirect restorations**

Follow the standard procedures for moisture control, cavity preparation and pulp protection

<p><b>1</b> Apply BOND to the cavity wall</p> <p>10sec.</p> 	<p><b>2</b> Dry with mild air*1</p> <p>more than 5sec.</p> 	<p><b>3</b> Light-cure</p> <p>10sec.</p> 
<p><b>4</b> Apply CLEARFIL MAJESTY Flow and light-cure</p> 	<p><b>5</b> Remove unpolymerized resin</p> 	

**B**

\*1 Dry the entire cavity wall sufficiently until BOND does not move. Use a vacuum aspirator to prevent BOND from scattering.

## Case C

DENTAL BONDING AGENT  
**CLEARFIL™ S<sup>3</sup> BOND PLUS**  
[CLEARFIL TRI-S BOND PLUS]

KURARAY MEDICAL INC.

## Treatment of exposed root surfaces

Follow the standard procedures for moisture control, cavity preparation and pulp protection

<p><b>1</b> Apply BOND to the cavity wall 10sec.</p> 	<p><b>2</b> Dry with mild air*1 more than 5sec.</p> 	<p><b>3</b> Light-cure 10sec.</p> 
<p><b>4</b> Apply CLEARFIL MAJESTY Flow and light-cure</p> 	<p><b>5</b> Remove unpolymerized resin</p> 	<p>*1 Dry the entire cavity wall sufficiently until BOND does not move. Use a vacuum aspirator to prevent BOND from scattering.</p>

C

④



Case D-1

DENTAL BONDING AGENT  
**CLEARFIL™ S' BOND PLUS**  
[CLEARFIL TRI-S BOND PLUS]

KURARAY MEDICAL INC.

Intraoral repairs of fractured restorations made of ceramic, hybrid ceramics or composite resin (1/2)

When using the mixture of BOND and CLEARFIL PORCELAIN BOND ACTIVATOR for silane treatment

<p><b>1</b> Roughen the adherent surface, wash and air dry</p> 	<p><b>2</b> Apply K-ETCHANT GEL to the adherent surface</p> <p>5 sec.</p> 	<p><b>3</b> Wash and air dry</p> 
<p><b>4</b> Apply ALLOY PRIMER to the precious metal surface and dry</p> 	<p><b>5</b> Apply the mixture of BOND and ACTIVATOR*1 to the adherent surface</p> 	<p>Adherent surface NOT including the tooth <b>5 sec.</b></p> <p>Adherent surface includes the tooth <b>10 sec.</b></p>

D

\*1 ACTIVATOR: CLEARFIL PORCELAIN BOND ACTIVATOR

## Case D-1

DENTAL BONDING AGENT  
**CLEARFIL™ S<sup>3</sup> BOND PLUS**  
[CLEARFIL TRI-S BOND PLUS]

KURARAY MEDICAL INC.

**Intraoral repairs of fractured restorations made of ceramic,  
hybrid ceramics or composite resin (2/2)**

*When using the mixture of BOND and CLEARFIL PORCELAIN BOND ACTIVATOR for silane treatment*



- \* 1 Dry the entire cavity wall sufficiently until BOND does not move.  
Use a vacuum aspirator to prevent BOND from scattering.
- \* 2 Use an opaque resin (e.g. CLEARFIL ST OPAQUER) to mask metal color.






Case D-2

DENTAL BONDING AGENT  
**CLEARFIL™ S' BOND PLUS**  
[CLEARFIL TRI-S BOND PLUS]

KURARAY MEDICAL INC.

**Intraoral repairs of fractured restorations made of ceramic,  
hybrid ceramics or composite resin (1/2)**

*When using other silane-coupling agents for silane treatment, and applying BOND on the tooth surface*

<p><b>1</b> Roughen the adherent surface, wash and air dry</p> 	<p><b>2</b> Apply K-ETCHANT GEL to the adherent surface NOT including the tooth 5 sec.</p> 	<p><b>3</b> Wash and air dry</p> 
<p><b>4</b> Apply ALLOY PRIMER to the metal surface and dry</p> 	<p><b>5</b> Apply CLEARFIL CERAMIC PRIMER to the adherent surface*1 and dry</p> 	

D

\* 1 ceramic or composite resin




## Case D-2

DENTAL BONDING AGENT  
**CLEARFIL™ S<sup>3</sup> BOND PLUS**  
[CLEARFIL TRI-S BOND PLUS]

KURARAY MEDICAL INC.

### Intraoral repairs of fractured restorations made of ceramic, hybrid ceramics or composite resin (2/2)

When using other silane-coupling agents for silane treatment, and applying BOND on the tooth surface

<p><b>6</b> Apply BOND to the tooth 10sec.</p> 	<p><b>7</b> Dry with mild air*<sup>2</sup> more than 5sec.</p> 	<p><b>8</b> Light-cure 10sec.</p> 
<p><b>9</b> Place composite resin*<sup>3</sup>, light-cure and finish</p> 		

\*<sup>2</sup> Dry the entire cavity wall sufficiently until BOND does not move. Use a vacuum aspirator to prevent BOND from scattering.

\*<sup>3</sup> Use an opaque resin (e.g. CLEARFIL ST OPAQUER) to mask metal color.

D

⑥-2




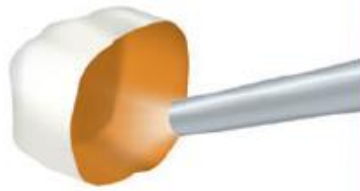



**Case E**

DENTAL BONDING AGENT  
**CLEARFIL™ S' BOND PLUS**  
[CLEARFIL TRI-S BOND PLUS]

KURARAY MEDICAL INC.

**Surface treatment of prosthetic restorations made of ceramic, hybrid ceramics or composite resin**

<p><b>1</b> As necessary, blast to the adherent surface with alumina powder*1 and clean with ultrasonic (2 min)</p>  <p>*1 Air pressure : 0.1-0.4 MPa (1-4 kgf/cm<sup>2</sup>)</p>	<p><b>2</b> Apply K-ETCHANT GEL, leave in place for 5sec., wash and air dry</p> 	<p><b>3</b> Apply the mixture of BOND and ACTIVATOR*2</p>  <p>5sec.</p>
<p><b>4</b> Dry with mild air</p>  <p>more than 5sec.</p>	<p><b>5</b> Cementation with resin cement</p> 	

\*2 ACTIVATOR: CLEARFIL PORCELAIN BOND ACTIVATOR

**E**

Case F

DENTAL BONDING AGENT  
**CLEARFIL™ S' BOND PLUS**  
[CLEARFIL TRI-S BOND PLUS]

KURARAY MEDICAL INC.

Surface treatment of dental posts

When using glass fiber posts

<p><b>1a</b> Apply K-ETCHANT GEL, leave in place for 5sec., wash and air dry</p> 	<p><b>1b</b> Apply the mixture of BOND and ACTIVATOR*1</p> <p>5sec.</p> 	<p><b>1c</b> Dry with mild air</p> <p>more than 5sec.</p> 
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When using non-precious metal posts

<p><b>2a</b> Blast with alumina powder</p> 	<p><b>2b</b> Apply BOND</p> <p>5sec.</p> 	<p><b>2c</b> Dry with mild air</p> <p>more than 5sec.</p> 
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F

\*1 ACTIVATOR: CLEARFIL PORCELAIN BOND ACTIVATOR

Case G

DENTAL BONDING AGENT  
**CLEARFIL™ S' BOND PLUS**  
[CLEARFIL TRI-S BOND PLUS]

KURARAY MEDICAL INC.

Post cementation and core build-ups using  
dual-cured composite resin **CLEARFIL™ DC CORE PLUS** (1/2)

Follow the standard procedures for moisture control and preparing root canal

**1** Treatment of post surface



When using glass fiber post  
Treat the post surface according to  
"Case F" or apply silane coupling agent

When using metal post  
Treat the post surface according to  
"Case F" or apply a metal adhesive  
primer

**2** Apply BOND  
to the cavity wall



**3** Dry with mild air\*1



**4** Remove excess BOND  
with a paper point



**5** Dry with mild air again



G

\*1 Dry the entire cavity wall sufficiently until BOND does not move. Use a vacuum aspirator to prevent BOND from scattering.



**Case G**

DENTAL BONDING AGENT  
**CLEARFIL™ S<sup>3</sup> BOND PLUS**  
[CLEARFIL TRI-S BOND PLUS]

KURARAY MEDICAL INC.



Post cementation and core build-ups using  
dual-cured composite resin **CLEARFIL™ DC CORE PLUS** (2/2)



**G**



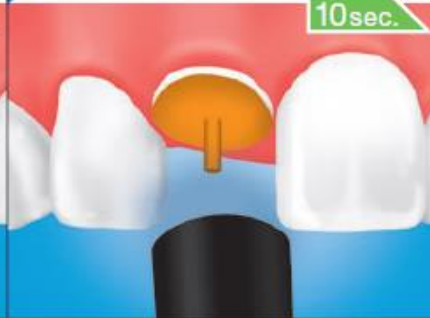

## Case H

DENTAL BONDING AGENT  
**CLEARFIL™ S<sup>3</sup> BOND PLUS**  
[CLEARFIL TRI-S BOND PLUS]

KURARAY MEDICAL INC.

### Core build-ups using light-cured composite resin

Follow the standard procedures for moisture control, preparing root canal and post cementation

<p><b>1</b> Apply BOND to the adherent surface (cavity wall, post) <b>10sec.</b></p>  A cross-sectional diagram of a tooth with a root canal. A yellow bonding agent is being applied to the cavity wall and a post. A syringe is shown next to the tooth. A green arrow indicates a 10-second application time.	<p><b>2</b> Dry with mild air*1 <b>more than 5sec.</b></p>  The same tooth as in diagram 1, but now the bonding agent is dry. A blue air stream is being directed at the cavity. An orange arrow indicates a drying time of more than 5 seconds.	<p><b>3</b> Light-cure <b>10sec.</b></p>  The same tooth as in diagram 2, but now a black light-curing device is being used to cure the bonding agent. A green arrow indicates a 10-second curing time.
<p><b>4</b> Core build-ups using light-cured composite resin</p>  The same tooth as in diagram 3, but now a yellow composite resin core build-up is being placed over the bonding agent. A syringe is shown next to the tooth.		

Note : Apply Case H only when the adherent surface is light accessible.

\* 1 Dry the entire cavity wall sufficiently until BOND does not move. Use a vacuum aspirator to prevent BOND from scattering.

H

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