SHASTA DENTAL SUPPLY
REDDING, CA
EST. 1989

CLEARFIL SE Protect

Introduced 2004

CLEARFIL SE PROTECT contains the same proprietary self-etching, light cure technology as **CLEARFIL SE BOND** but with two additional proprietary technologies; long-term Fluoride release and the **MDPB** monomer, which has an antibacterial cavity cleansing effect. **CLEARFIL SE PROTECT** is a revolutionary adhesive.

- No post-operative sensitivity
- Simple, proven proceedure
- Direct and indirect applications
- Intraoral repairs

PANAVIA SA Cement Universal

Introduced August 2019

Automix & Handmix

PANAVIA SA Cement Universal contains the unique **LCSi** monomer that delivers a strong and durable chemical bond to porcelain, lithium disilicate and composite resins without the need for a silane step. **PANAVIA SA Cement Universal** also contains the original **MDP** monomer that will chemically bond to zirconia and metal without any separate primers.

- Room temperature storage (up to 77°)
- Easy application
- Easy excess cement removal
- Radiopaque
- Film thickness: approx. 16µm
- No restoration primers required
- Shades: Universal/A2, Translucent, White

Direct Restoration
Using Light-cured Composite Class II

TOOTH PREPARATION:

1	Choose Etching Technique **a**. Self-etch (go to step 3) **b**. Selective-etch (go to step 2)
2	Apply **K-etchant Gel** to enamel for 5 seconds. Wash and dry.
3	Apply **SEP Primer** with a rubbing motion 20 seconds. Dry with mild air flow.
4	Apply **SEP Bond**. Air flow gently. Light cure 10 seconds.
!	**Tip:** To thin the bond, wipe off the **Microbrush** and gently wick off the excess bond on the tooth.

COMPOSITE PLACEMENT:

5	Place flowable composite (**Clearfil Majesty Flow**) on gingival floor, light-cure for 10 seconds. Continue with light-curing 2mm increments of flowable till desired fill.
6	Place sculptable composite (**Clearfil Majesty ES-2**) light-cure for 10 seconds.
7	Finish & Polish.

Bonding Accessories

Clearfil DC Activator
Mix with SE Protect Bond when using dual-cured cement, composite or core build-up material. Thins bond 3-5 micron after air.

Porcelain Bond Activator
Silane coupling agent. Activated when mixed with SE Protect Primer. Does not require HF acid. Long shelf life.

Alloy Primer
Apply Alloy Primer to sandblasted precious or semi precious metals to enhance bond strength.

Direct Restoration
Using Bulk EZ PLUS (Directed Shrinkage Tech.)

TOOTH PREPARATION:

1	Choose Etching Technique **a**. Self-etch (go to step 3) **b**. Selective-etch (go to step 2)
2	Apply **K-etchant Gel** to enamel for 5 seconds. Wash and dry.
3	Apply **SEP Primer** with a rubbing motion 20 seconds. Dry with mild air flow.
!	**Bulk EZ PLUS** contains a built-in activator. **Clearfil DC Activator** is not required.
4	Apply **SEP Bond**. Air flow gently. Light cure 10 seconds.
!	**Tip:** To thin the bond, wipe off the **Microbrush** and gently wick off the excess bond on the tooth.

COMPOSITE PLACEMENT:

5	Start by placing **Bulk EZ PLUS** in the deepest part of the box keeping the tip moving and embedded till the restoration is filled.
!	**Tip:** After restoration is filled use a **Microbrush** to drag the **Bulk EZ PLUS** towards the occlusal margin.
6	Allow the **Bulk EZ PLUS** to self-cure for 90 seconds from start of fill.
7	Light-cure for 10 seconds.
8	Finish & Polish.
!	**Capping Bulk EZ PLUS:** Fill restoration to desired height (DEJ). Wait the 90 seconds, do not light-cure, then proceed to cap with your favorite sculptable composite (Majesty ES-2, AP-X, Estelite, ZNano, etc...)
!	*Directed shrinkage technique by Ray Bertolotti, DDS*

Indirect Restoration
Zirconia, Metal Panavia SAC or V5

SURFACE PREPARATION:

1a or	After try-in **Sandblast** restoration using 50 micron aluminum oxide in a **MicroEtcher**. Blow with air.
1b	After try-in clean restoration with **Katana Cleaner**.
2a	Using **Panavia SACU** Primers not required.
2b	Using **Panavia V5** Zirconia: **SEP Primer**, air dry. Metal: **Alloy Primer**, air dry.

TOOTH PREPARATION:

!	Sandblast using a **MicroEtcher** to clean tooth. Wash and dry.
3	Choose Etching Technique **a**. Self-etch (go to step 5) **b**. Selective-etch (go to step 4)
4	Apply **K-etchant Gel** to enamel margin for 5 sec. Wash and dry.
5	Apply **SEP Primer** with a rubbing motion 20 seconds. Dry with mild air flow.
6	Mix **SEP Bond** with **DC Activator** and apply. Air flow gently. Do not light cure.
!	Metal or composite abutment **Sandblast** using a **Microetcher**.
	Using **Panavia SACU** No primers required on abutment. If tooth structure is present proceed with steps 3-6.
	Using **Panavia V5** ***Metal:*** Proceed with steps 3-6. ***Composite:*** Proceed with steps 3-6, and at step 5 mix **PB Activator** with the **SEP Primer**.

CEMENTATION:

7	Place your choice of **Panavia** in the restoration and seat.
8a or	Tack-cure for 2 to 5 sec, then remove the excess cement with a dental explorer.
8b	Remove excess cement with a small brush.
9	Maintain isolation for 5 minutes or light-cure for 10 seconds around margin for translucent restorations.

Indirect Restoration
Lithium Disilicate (e.max) Panavia SAC or V5

SURFACE PREPARATION:

1a or	After try-in apply **Ceram Etch 5% HF Acid** for 20 seconds. Wash and dry.
1b	After try-in clean restoration with **Katana Cleaner** if already HF etched from lab.
2a	Using **Panavia SACU** Silane is not required.
2b	Using **Panavia V5** Mix and apply **SEP Primer** + **PB Activator**, air dry.

TOOTH PREPARATION:

!	Sandblast using a **MicroEtcher** to clean tooth. Wash and dry.
3	Choose Etching Technique **a**. Self-etch (go to step 5) **b**. Selective-etch (go to step 4)
4	Apply **K-etchant Gel** to enamel margin for 5 sec. Wash and dry.
5	Apply **SEP Primer** with a rubbing motion 20 seconds. Dry with mild air flow.
6	Mix **SEP Bond** with **DC Activator** and apply. Air flow gently. Do not light cure.
!	Metal or composite abutment **Sandblast** using a **Microetcher**.
	Using **Panavia SACU** No primers required on abutment. If tooth structure is present proceed with steps 3-6.
	Using **Panavia V5** ***Metal:*** Proceed with steps 3-6. ***Composite:*** Proceed with steps 3-6, and at step 5 mix **PB Activator** with the **SEP Primer**.

CEMENTATION:

7	Place your choice of **Panavia** in the restoration and seat.
8a or	Tack-cure for 2 to 5 sec, then remove the excess cement with a dental explorer.
8b	Remove excess cement with a small brush.
9	Maintain isolation for 5 minutes or light cure for 10 seconds around margin for translucent restorations.

Core Bulid-up
Using Clearfil DC Core PLUS

POST TREATMENT AFTER TRY-IN:
(no post, skip to step 7)

1a	***Glass Fiber Post:*** Apply **SureEtch Liquid** for 5 seconds, rinse and dry. Apply **SEP Primer** + **PB Activator.** Air Dry.
1b	***Metal Post:*** Sandblast post using a **MicroEtcher**. Blow with air. Apply **SEP Primer**. Air Dry.
1c	***Ice Post or IceLight Post:*** Posts are super silanted, wipe with alcohol. Apply **SEP Primer**. Air Dry.

POST CEMENTATION:

2	If you wish to selective-etch the enamel margins and or post canal apply **SureEtch Liquid** for 10 seconds. Rinse and air dry.
3	***Canal and occlusal surface:*** Apply **SEP Primer** with a rubbing motion 20 seconds. Dry with mild air flow.
4	Mix **SEP Bond** with **DC Activator** and apply. Air flow gently. Do not light cure.
!	For a loose post space use **DC Core PLUS**.
5a	Inject **Panavia SACU** / Inject **Panavia V5**
5b	Inject **Clearfil DC Core PLUS**
6	Insert the treated post into the canal. Light-cure for 10 seconds. Go to step 8

TOOTH PREPARATION:

7	If you wish to selective-etch the enamel margins apply **SureEtch Liquid** for 10 sec. Rinse and air dry.
8	Apply **SEP Primer** with a rubbing motion 20 seconds. Dry with mild air flow.
9	Mix **SEP Bond** with **DC Activator** and apply. Air flow gently.
10	Air dry for 5 sec. Light-cure 10 sec.

CORE BUILD-UP:

11	Place **DC Core PLUS**, a matrix can be used to stabilize or tack cure for 5 seconds.
12	Light-cure for 20 seconds both lingual and buccal sides. Allow to self-cure for 6 minutes if thicker then 2mm.
13	After determining the paste is cured prepare the abutment.

Cervical Desensitization
Class V

TOOTH SURFACE

!	Self-etch primers (generally two step sytems) may be used for desensitizing cervical areas. They do not require anesthesia for application so the result can be immediately tested. Clearfil SE Protect has shown a 100% retention rate after 5 years in a clinical evaluation on Class-V restorations.
1	Wipe area clean with gauze (avoid procedures that hurt)
2	Apply **SEP Primer** with a rubbing motion 20 seconds. Dry with mild air flow.
3	Apply **SEP Bond**. Air flow gently. Light cure 10 seconds.
!	The bond layer will stop sensitivity in nearly every case.

COMPOSITE PLACEMENT:

!	If desired to fill in the contour, apply a microfill flowable composite. The composite functions only to re-contour. When applying the composite, apply to the gingival area first and cure it, then the incisal portion and cure it separately. This is known as decoupling, minimizing the stresses on the dentin bond.
4	Place flowable microfill composite (**Aria** or **Clearfil Majesty ES Flow**). Light-cure for 10 sec.
5	Finish and polish.

Broken Anterior Tooth
Bonding a broken anterior tooth fragment

TOOTH SURFACE

!	Do not sandblast or do any adjusting, it will modify the perfect fit. Cement and composite will not be used for luting. The thickness of the bond will be the luting cement. These steps should be done quickly.
1	Try-in for fit and position.
2	Wash and dry. (both sides)
3	Apply **SEP Primer** to tooth and fragment with a rubbing motion 20 seconds. Dry with mild air flow.
4	Apply **SEP Bond** to tooth and fragment. Air flow gently.
5	Seat the treated tooth piece.
6	Light cure thoroughly.
7	If there is a chip or other defect, use a flowable microfill composite after re-attaching the fragment (**Aria** or **Clearfil Majesty ES Flow**). Light-cure for 10 sec.
8	Finish and polish.

Ceramic Repair
Composite Repair
Zirconia Repair 1

SURFACE PREPARATION:

1	**Sandblast** restoration using 50 micron aluminum oxide in a **MicroEtcher**. Blow with air.
!	***Zirconia:*** skip step 2 and do not mix the **PB Activator** in step 3
2	Apply **K-etchant Gel** for 5 sec. Wash and dry.
3	Mix and apply **SEP Primer** + **PB Activator** with a rubbing motion 5 seconds. Dry with mild air flow.
4	Apply **SEP Bond**. Air flow gently. Light cure 10 seconds.

COMPOSITE PLACEMENT:

5	Place flowable composite (**Clearfil Majesty Flow**), light-cure for 10 seconds.
6	Place sculptable composite (**Clearfil Majesty ES-2**) light-cure for 10 seconds.
7	Finish & Polish.

CLEARFIL SILANE

1	Apply **K-etchant Gel** for 5 sec. Wash and dry.
2	Mix and apply **SEP Primer** + **PB Activator** with a rubbing motion 5 seconds. Dry with mild air flow.

PFM Repair 1
Using aluminum oxide and Alloy Primer

SURFACE PREPARATION:

1	**Sandblast** restoration using 50 micron aluminum oxide in a **MicroEtcher**. Blow with air.
2	Apply **K-etchant Gel** for 5 sec. Wash and dry.
3	If precious or semi-precious metal is exposed apply **Alloy Primer** and air dry.
!	Mystery metal apply **Alloy Primer**.
4	Mix and apply **SEP Primer** + **PB Activator** to entire surface with a rubbing motion 5 sec. Dry with mild air flow.
5	Apply **SEP Bond**. Air flow gently. Light cure 10 seconds.

COMPOSITE PLACEMENT:

6	Exposed metal; apply composite opaquer such as **Accolade OP Mask**. Light cure 30+ seconds.
7	Place flowable composite (**Clearfil Majesty ES Flow**), light-cure for 10 seconds.
8	Place sculptable composite (**Clearfil Majesty ES-2**) light-cure for 10 seconds.
9	Finish & Polish.

PFM Repair 2
Zirconia Repair 2
Using SilJet

SURFACE PREPARATION:

!	**SilJet** is a 30 micron silicating media comprised of encapsulated alumina that embeds silica into impacted inorganic surfaces. The metal becomes a porcelain surface. Great for mystery metal.
1	Affix the **SilJet** Powder to a **MicroEtcher**. Surface should be clean and dry.
2	Direct the **SilJet** powder stream perpendicularly onto the target surface from a distance from 5-10mm. Coat entire restorative surface evenly. Blasting time is usually 15 seconds.
3	Apply air for 5 seconds to remove residual powder.
4	Mix and apply to entire surface **SEP Primer** + **PB Activator** with a rubbing motion 5 seconds. Dry with mild air flow.
5	Apply **SEP Bond**. Air flow gently. Light cure 10 seconds.

COMPOSITE PLACEMENT:

6	Exposed metal; apply composite opaquer such as **Accolade OP Mask**. Light cure 30+ seconds.
7	Place flowable composite (**Clearfil Majesty ES Flow**), light-cure for 10 seconds.
8	Place sculptable composite (**Clearfil Majesty ES-2**) light-cure for 10 seconds.
9	Finish & Polish.

Bonding Failed Crown
With post and core inside

SURFACE PREPARATION:

!	Visually inspect the failure to avoid another. Many failures similar to these are because of weak adhesives/cements, compromised tooth structure, going beyond limitations or steps that were poorly exucuted during the bonding procedure. If tooth structure and the core in the crown is sound then continue with the following steps.
1	Try-in for fit and position.
2	Wash and dry. (both sides)
3	**Sandblast** the internal of the restoration (post, core and crown margin) and tooth using 50 micron aluminum oxide in a **MicroEtcher**. Blow with air.
4	Apply **K-etchant Gel** to the enamel of the tooth and porcelain margin of the crown for 5 seconds. Wash and dry. Also etch the post space.
!	Do not apply **K-etchant Gel** on Zirconia.
5	Mix and apply **SEP Primer** + **PB Activator** with a rubbing motion for 20 seconds to the tooth and 5 seconds on the internal of the crown including post and core. Dry with mild air flow.
6	Mix **SEP Bond** with **DC Activator** and apply to both surfaces. Air flow gently. Do not light cure.

CEMENTATION:

!	For a loose post space or large void in crown use **Bulk EZ PLUS**. Choose your cement for step 7.
7a	Inject/apply **Panavia SACU**
7b	Inject/apply **Panavia V5**
7b	Inject/apply **Bulk EZ PLUS**
8	Seat the crown and remove excess cement with a small brush.
9	Maintain isolation for 5 minutes and/or light cure thoroughly.

Review all manufacturers instructions and precautions before using this cheat sheet.

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