Clearfil® Photo Bond

Dual-Cure Total-Etch Dental Adhesive

A successful relationship since 1984

The world's only bonding agent that can bond to Enamel, Dentin, Metal, Porcelain[1] and Cured Composite[1]

...Simultaneously in a Single Application!

Features & Benefits

- High bond strength to enamel and dentin
- Dual-cure
- Bonds to multiple surfaces in a single application
- Simple and very easy to use

[1]Clearfil Photo Bond is a dual-cure dentin and enamel bonding agent used in a total-etch-technique. It was developed for use with light & self-cure restorative materials. It adheres to metal and amalgam, as well as to porcelain and cured composite when mixed with ***Clearfil Porcelain Bond Activator***.

Multiple Applications!

- **Porcelain, Cured Composite and PFM Repair** *High bond strength with no hydrofluoric acid and no separate silane step.*
- **Porcelain Veneer Bonding** *High enamel bond strength with dual-curing reassurance.*
- **Post & Core Bonding** *Use with dual or self-cure composite or core paste (Clearfil DC Core Automix).*
- **Amalgam Bonding**
- **Ortho** *Bonding brackets to porcelain crowns or cured composite restorations.*

Optional Components

K-Etchant Gel (KA-013)

40% phosphoric acid

SA Primer (KA-063)

Adhesion primer for dentin to fix exposed collagen fibers after total-etching.

Porcelain Bond Activator (KA-061)

Silane coupling agent to be mixed with Photo Bond.

Alloy Primer (KA-064)

Metal Primer for semi-precious and precious metals before bonding.

DC Core
(KA-362) White
(KA-363) Dentin

Dual-cure core material.

Popular Photo Bond Technique

Direct Shrinkage Technique for Posterior Composite Placement

by Raymond Bertolotti, DDS

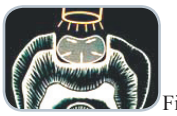

Figure 1

Figure 2

*During light curing of composites, it is well known that light initiated polymerization tends to pull composite toward the light and away from the composite-tooth interface (Figure 1). In the "Directed Shrinkage" technique for composite placement, the composite polymerization is initiated by the bonding agent (**Clearfil Photo Bond**) in the prepared cavity. The polymerization shrinkage is initiated directed toward the tooth-composite interface (figure 2). This initially polymerized layer resists the further tendency for the composite to pull away from the interface, influenced by light curing. Chemical cure is generally the preferred mode of cure for the initial stages of polymerization. A reduced rate of cure reduces stress in the composite and results in better margins. Dual cure is generally believed to result in better polymerization and enhanced properties.*

1. Etch preparation with a 37% phosphoric acid (***K-Etchant Gel***). Wait 15-30 seconds. Wash and dry.
2. ***<Recommended Optional Step>*** Apply desensitizer agent to prevent sensitivity. Wait 30 seconds. Gently air dry.
3. Mix ***Clearfil Photo Bond*** (Catalyst & Universal). Apply mixture to restorative surface and leave for 5 seconds. Gently air thin for 2-3 seconds to evaporate the ethanol contained in the mixture. Light cure.
4. Apply the matrix.
5. Apply a self-cure or dual-cure flowable composite (***Bisfil™ 2B*** or ***Starfill 2B™***). Fill and let self-cure.
6. Apply final layer of light-cure restorative composite. Finish and polish.

References and full technique article available upon request. Bisfil is a trademark of Bisco. Starfill 2B is a trademark of Danville Materials.

Note: Please read manufacturers instructions for use thoroughly before using referenced products.