**INSTRUCTIONS**

**IMPORTANT:** READ ALL INSTRUCTIONS THOROUGHLY BEFORE USE. KEEP THIS LEAFLET AND REFER TO IT PERIODICALLY.

Bonding Agent for Resin-based Dental Restorations and Protective Coat for Dentin

**AQ Bond Plus**

**FOR DENTIST USE ONLY**

1. **What is AQ Bond Plus?**

AQ Bond Plus is a single-bottle, self-etching, self-priming, light-cured dentin bonding system. It does not require acid-etching of dentin or cut enamel surfaces before use.* It is suitable for use with directly applied composite resins and can be cured by any light-curing devices. AQ Bond Plus can also be used as the adhesive agent for indirectly fabricated restorations. It contains 4-META**, a high performance adhesive monomer that decalcifies tooth substrate and penetrates through the smear layer to form a hybrid layer, creating excellent bonds to dentin and enamel. It forms a fortified resin coat on dentin, which blocks mechanical and biological stimuli to dentin-pulp-complex.

2. **Contents of the kit:**

- **Base** 5mL
- **Sponge Activators** 1 (approx. 175 pcs)
- **Plastic Dispensing Dish**
- **Base** 15mL

3. **Precautions:** Read all instructions thoroughly before use.

3.1 **Safety**

- **Sensitivity**
  AQ Bond Plus should not be used by clinicians or on patients who are methacrylate monomer-sensitive. If signs of irritation such as redness appear, stop using it immediately and consult a physician.

- **Precautions**
  AQ Bond Plus contains acidic methacrylate monomer. Avoid contact of the AQ Bond Plus components with soft tissue, skin or eyes. Use of rubber dam is recommended. Contaminated skin or mucosa should be wiped off immediately with alcohol and then rinsed thoroughly with copious amounts of running water. In some cases contaminated mucosa or gingiva may whiten, which will usually disappear in a few days. To minimize contamination during blowing or coating, place an evacuator near the treated tooth. If Sponge Activators contact wet skin, the odor may remain. If the AQ Bond Plus components enter the eye, immediately rinse the eye thoroughly with running water. Then the patient should be examined by an ophthalmologist. Clinicians should use dental protective gloves. Base contains approx. 40% acetone. Inhalation of a large amount of concentrated vapor may cause headache; therefore the area should be well ventilated. In case of such severe inhalation, move to fresh air.

- **Pulp protection**
  If the preparation approaches the pulp, apply a protective liner or base.

- **Flammability**
  Base is flammable. AVOID OPEN FLAME in use and storage.

- **Applications**
  Use AQ Bond Plus only for the applications recommended in the instructions.

3.2 **To get the best results**

- **Sponge Activators**
  Sponge Activators contain a bonding promoter and are an important component of AQ Bond Plus. Always apply AQ Bond Plus using Sponge Activators and do NOT substitute any other sponges.

4. **How to use AQ Bond Plus**

4.1 **Surface Preparation**

Prepare tooth using an instrument such as fine-grit point so that the smear layer becomes minimal. After tooth preparation, wash and blow-dry the surface.

**Note:** The bond strength to enamel can be further improved by pretreatment of enamel for 5 – 10 seconds with a phosphoric etchant such as Super-Bond C&B Red Activator but do NOT use silica-thickened phosphoric etchant which will compromise the bond strength. Fluorinated enamel should be always etched as above.

4.2 **Application of the Base**

- **a)Dispensaton**
  - Dispense one drop (up to 2 drops for a larger surface) of Base in the well of a Plastic Dispensing Dish and firmly recap the bottle immediately.
  - Stir the expressed liquid in the well with a Sponge Activator for a few seconds.
  **Note:** The liquid in the mixing well should be used within 3 minutes to minimize evaporation.

- **b)Application**
  - After stirring with the Sponge Activator, apply onto the prepared tooth surfaces and keep it moist for 20 seconds.
  - Evaporate the solvent using a very gentle air blow for 5–10 seconds, then another 5 – 10 seconds to dry the surface using strong air.

4.3 **Light-curing**

Irradiate light with a visible light curing unit. With an ordinary halogen lamp irradiate 5 seconds for direct restorations, and 10 seconds for indirect restorations.

**Note:** AQ Bond Plus is compatible with any currently available curing lights. With a fast light, the irradiation time should be shortened according to the instruction of the manufacturer and reflecting the above shorter irradiation time for direct restorations.

**4.4 Restoration**

- **a)Direct restoration with a composite**
  Place a composite and light-cure according to the manufacturer's instructions. For deep cavities use incremental composite placement and, where applicable, line with a flowable resin.

- **b)Indirect restoration**
  - Second coating is recommended to avoid the hypersensitivity. (OR/ Repeating the application of AQ Bond Plus makes the coat stronger.)
  - Wipe the surface of the light-cured AQ Bond Plus with an alcohol cotton pellet to remove the air-inhibited layer. Where necessary, re-shape the margin.
  - Take an impression using a material of your choice.
  - Temporize and fabricate the prosthesis. If a temporary resin is used, apply a separating agent beforehand to avoid inadvertent bonding to the tooth.
  - Remove the temporary, wash and dry the cavity.
  - Apply a luting agent of your choice and place the prosthesis.

**Storage**

Store AQ Bond Plus in a dark location between 4°C and 15°C, preferably in a refrigerator, but do NOT freeze AQ Bond Plus. If frozen, phase separation will occur. High temperature, direct sunlight and high humidity should be avoided. Sponge Activators are slightly hydroscopic.

**Volatility**

Base is highly volatile. Firmly recap the bottle immediately after use.

**Contamination**

To avoid contamination, do not mix the components with those of other materials, nor mix the bottle caps. Particularly, do not mix Sponge Activators with other sponges. After use, dispose of leftover material. Once dispensed, do not return the materials to their original container.

As in any dental treatment, the patient’s individual constitution and the unique requirements of clinical case at hand must be considered before selecting materials and conditions for use.