



English

INSTRUCTIONS FOR USE:

Nano-Bond is a versatile, state-of-the-art resin adhesive system whose numerous scientific advancements make it superior to previous 5th generation bonding systems. The components contained in the *Nano-Bond* kit accommodate either direct or indirect bonding.

Nano-Bond Kit offers the clinician a number of features and benefits:

- An Advanced Adhesive: "Cage-shaped", surface functional, nano-particulate structures. These have been added to the *Nano-Bond* Adhesive to reinforce the resin for a stronger bond. Unlike conventional nano-particles, this "cage-shaped" structure contains a functional group that can be used to improve the properties of the resin. Examples include, improved hardness, improved elastic modulus, improved viscosity, etc.
- A Self Etch Primer: It has been clinically demonstrated that eliminating phosphoric acid etching of the dentin results in markedly reduced levels of post-operative sensitivity.
- A Dual Cure Activator: *Nano-Bond* will enable you to bond with confidence when self or dual cured materials are used or where the ability to light cure is limited.
- An Etching Gel: **Important Note for Uncut Enamel:** The use of phosphoric acid etchant is required if enamel surfaces are uncut. This highly thixotropic 37% phosphoric acid etchant facilitates precise placement of the etchant on enamel margins. See Section C for instructions.

A. Direct Bonding Technique with Enamel Margins

1. After the tooth has been prepared, clean the surface to remove any loose debris.
2. Rinse the tooth with a stream of warm water. Briefly air dry the tooth for about 2 seconds. (Do not desiccate the tooth.)
3. Apply two (2) coats of *Nano-Bond* Self Etch Primer onto the prepared dentin and enamel surfaces and leave in place for about 30 seconds. Agitate the primer into the surface during this period using the applicator brush.
4. Remove excess primer with a dry applicator brush, but leave the surface with a very wet appearance.
5. Dispense enough *Nano-Bond* Adhesive into the mixing well to saturate the brush tip. Apply two (2) coats of *Nano-Bond* Adhesive to cover the entire prepared tooth surface, so that it has a shiny, resin rich look. (Agitate the *Nano-Bond* Adhesive to ensure a good mix of the residual self etch primer with the adhesive while brushing it on the tooth surface.) Leave in place for a few seconds.
6. Gently air dry for a minimum of 10 seconds to remove the solvent completely. (Start with the air syringe one inch away from the tooth and gradually move closer as you dry it.) The resin on the surface should not be moveable and the surface should have a shiny, resin rich appearance after drying. If not, repeat Step 5.
7. Light cure for 10 seconds with a standard halogen light, with the tip as close to the surface as possible.
8. A light cured restorative material may be applied at this point.

B. Indirect Bonding Technique

1. After the tooth has been prepared, clean the surface to remove any loose debris.
2. Rinse the tooth with a stream of warm water. Briefly air dry the tooth.
3. Apply two (2) coats of *Nano-Bond* Self Etch Primer onto the prepared dentin and enamel surfaces and leave in place for a minimum of 30 seconds. Agitate the primer into the surface during this period using the applicator brush. (Visually, the tooth should appear very wet.)
4. Remove excess primer with a dry applicator brush, but leave the surface with a very wet appearance.
5. Dispense one (1) drop of *Nano-Bond* Dual Cure Activator and two (2) drops of *Nano-Bond* Adhesive into the mixing well and briefly mix with the applicator brush tip.
6. Apply two (2) coats of the mixture to cover the entire prepared tooth surface, so that it has a shiny, resin rich look. (Agitate the *Nano-Bond* Adhesive to ensure a good mix of the residual self etch primer with the adhesive while brushing it on the tooth surface.) Leave in place for a few seconds.
7. Gently air dry for a minimum of 10 seconds to remove the solvent completely. (Start with the air syringe one inch away from the tooth and gradually move closer as you dry it.) The resin on the surface should not be moveable and the surface should have a shiny, resin rich appearance. If not, repeat step 6.
8. Apply a self cured or dual cured luting cement (e.g., Lute-It® or Cement-It® Universal C&B™) or core build-up material (e.g., Build-It® F.R.™ Core Build-up Material) directly onto the bonding agent surface and allow it to set.
9. Optionally, you may attempt to light cure the material for 10 seconds with a standard halogen light, where possible. In any event, allow for the material to chemically set before proceeding any further.

C. Etching Uncut Enamel Before Self-Etching the Dentin

1. Place the phosphoric acid etchant on the surface of the uncut enamel. Leave in place for 20 seconds.
2. Rinse the etchant away from the dentin surface with a copious amount of water and gently air dry the enamel using a light 2-second stream of air.

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