

DiaDent®

DiaPlus™

C E 0197

Single Composite Bonding Agent

Description

DiaPlus is a light-cured 5th generation universal single component adhesive that is designed for all types of composite resin restorations.

Indications for use

DiaPlus is a dentine/enamel total etching bonding system used in the adhesion of all direct restoration materials.

- All Direct Composite Restorations
- Composite, ceramic and amalgam restorations
- Indirection Restorations: inlays, onlays, veneers, crowns, porcelain, amalgam, composite

Composition

- Ethyl alcohol / Urethane dimethacrylate / Bisphenol-A-glycidyl methacrylate / mono-2-(Methacryloyloxy) ethyl succinate / Additives

Applications**A. Preparations prior to the use**

- 1) Check the abnormal state of the product including expiry date, presence of foreign matters and impurities, and deformation (do not use product that has hardened), etc. before the use of the product.
- 2) Comply with the application method after having familiarized with the User Manual of the manufacturer.
- 3) Remove the protective cap and prepare device for filling.
- 4) Protect the oral cavity with rubber dam.

B. Recommended procedure**[Direct adhesion of composite resin]**

1. Thoroughly clean the damaged area of the teeth with pumice and water. If the dental pulp is exposed, execute dental pulp capping with calcium hydroxide and glass ionomer in accordance with the indicant.
2. Etch enamel and dentine using an etchant such as DiaEtch. Wash off the etching gel with water and gently blot dry the surface for 1-2 seconds to remove excessive moisture, preferably with a foam pellet. Make sure to leave a small amount of moisture on the area of procedure. (Dentin and enamel should be dried until there is no pooling of water, leaving a moist, shiny surface. Avoid excessive drying as it can become the cause of degradation in the adhesion strength.)
3. Put 2 drops of DiaPlus adhesive in the mixing well and wet the brush tip with sufficient quantity of the adhesive to coat the area of procedure twice and wait for 10 seconds after the coating. Dry lightly for 2-5 seconds to allow evaporation of volatile solvent (if there is no luster on the surface of the area of procedure, apply the adhesive by repeating the above procedures).
4. Cure DiaPlus for 20 seconds using a curing light.
5. Place restorative material over the cured DiaPlus in accordance with manufacturer's directions of the restoration material applied.

[Composite, ceramic, and amalgam restorations]

1. Isolate the area to be treated with a rubber dam.
2. Roughen the surface of the existing amalgam or composite resin with a diamond bur or sand blaster.
3. Etch enamel and dentine using an etchant such as DiaEtch. Wash off the etching gel with water and gently blot dry the surface for 1-2 seconds to remove excessive moisture, preferably with a foam pellet. Make sure to leave a small amount of moisture on the area of procedure. (Dentin and enamel should be dried until there is no pooling of water, leaving a moist, shiny surface. Avoid excessive drying as it can become the cause of degradation in the adhesion strength.)
4. Put 2 drops of DiaPlus adhesive in the mixing well and wet the brush tip with sufficient quantity of the adhesive to coat the area of procedure twice and wait for 10 seconds after the coating. Dry lightly for 2-5 seconds to allow evaporation of volatile solvent (if there is no luster on the surface of the area of procedure, apply the adhesive by repeating the above procedures).
5. Cure DiaPlus for 20 seconds using a curing light.
6. In the case of hardened existing amalgam, thinly apply appropriate masking agent color onto the metal surface with brush prior to subjecting each layer to 20 seconds of light-curing.
7. In the case of filling in of restoration material, cure the material in accordance with manufacturer's directions of the material applied.

[Cementing of porcelain and adhesion of indirect restoration materials]

1. After removal of the temporary restoration material, thoroughly clean the area to be restored with pumice and water. If necessary, trial-fit to evaluate the shade.
2. Etch enamel and dentine using an etchant such as DiaEtch. Wash off the etching gel with water and gently blot dry the surface for 1-2 seconds to remove excessive moisture, preferably with a foam pellet. Make sure to leave a small amount of moisture on the area of procedure. (Dentin and enamel should be dried until there is no pooling of water, leaving a moist, shiny surface. Avoid excessive drying as it can become the cause of degradation in the adhesion strength.)
3. Put 2 drops of DiaPlus adhesive in the mixing well and wet the brush tip with sufficient quantity of the adhesive to coat the area of procedure twice and wait for 10 seconds after the coating. Dry lightly for 2-5 seconds to allow evaporation of volatile solvent (if there is no luster on the surface of the area of procedure, apply the adhesive by repeating the above procedures).
4. Cure DiaPlus for 20 seconds using a curing light (If the intensity of the output of the curing light is less than 400mW/cm², extend the curing time.)
5. After having applied Silane on the inner aspect of the restoration material processed with acid or sand blast, allow it to be dried (in the case of composite resin, apply sealant as needed).

5. Apply the area treated with sealant with DiaPlus adhesive once by using a brush.
6. Evaporate the volatile solvent of DiaPlus adhesive. There is no need for light-curing/polymerization.
7. After having mixed the dual polymerization type cement with the appropriate shade well, apply it onto the inner aspect of the area of restoration. It is easy to remove excessive cement if partial hardening (roughly 2-3 seconds) is used.
8. Comply with the User Manual of the manufacturer for settlement and polymerization of restoration material.

C. Storage and management after the use

- Inappropriate storage of the product can induce degradation of the performances and shorten the expiry date of the product.
- 1) Avoid high temperature and direct sunlight.
- 2) Keep it in dry and cool location (store at room temperature range of 2°C - 27°C).
- 3) Do not store in close vicinity of product that contains eugenol.
- 4) Since the product is volatile as it contains ethanol ingredient, make sure to put the cover on tightly immediately after use.
- 5) Keep it out of reach of children.
- 6) Do not store near fire.

Caution**A. Contraindication**

- 1) This product contains substance that can induce allergy depending on the person if it comes in contact with skin. Do not use this product on patients with acrylate allergy.

B. General Precautions

- 1) Product must be used by dental professionals only and should be used in accordance with the instructions and precautions for use.
- 2) Use of the product for purposes other than the prescribed purpose of use is prohibited.
- 3) This product cannot be prescribed for internal use.

C. Interaction

- 1) It is presumed that curing light is used at the time of the use of DiaPlus adhesive. The appropriateness of the curing light output must be checked frequently by using a reliable light intensity measurement device.

- **Recommended condition:** Light intensity = 400 mW/cm²
Wavelength = 460 nm

D. Precautions for Using

- 1) Protective eyewear and gloves are recommended.
- 2) Do not use the product after expiration.
- 3) Take precaution to avoid contact with product that has not been hardened. If exposed to skin, wash the product off immediately with plenty of water.
- 4) If etching agent is used for enamel and dentine, remove excessive moisture on the teeth after having removed etching agent by blotting with a cotton pellet or a foam pellet.
- 5) If the product has been in contact with oral soft tissue for a prolonged period of time, rinse off with plenty of water. If there is allergic reaction, seek medical attention and, if necessary, remove the product and stop using this product thereafter.
- 6) Since manifestation of temporary postoperative sensitivity is possible depending on the patient, make sure to use the product only after having undergone consultation with dental specialist.
- 7) Air used at the time of drying must not be polluted by oil or water.
- 8) In case of accidental contact with eyes or oral soft tissue, rinse off immediately with plenty of water and seek medical attention.
- 9) Do not mix DiaPlus with other products.
- 10) Very rarely, this product may cause hypersensitivity reactions. In such cases, discontinue use and consult a doctor.

Expiration

2 years from the manufacture date when stored according to the directions

Symbols**Warranty**

DiaDent Group International will replace product that is proven to be defective. DiaDent Group International does not accept liability for any damage or loss, direct or consequential, stemming from the use of or inability to use the product described. Before using, it is the responsibility of the user to determine the suitability of the product for its intended use. The user assumes all risk and liability in connection therewith.

**RX
Only**