

# Oxford Bond TE Dual



## Directions for Use

### Total Etch Adhesive – Dual Cure

Oxford Bond TE Dual is a simple to use dual cure bonding system consisting of the two components Oxford Bond TE Dual Part A and Oxford Bond TE Dual Part B. It is designed for strong bonding of **light cure, self cure and dual cure composites** to etched **enamel and dentine and to nonprecious and precious metals**. Oxford Bond TE Dual can be also used for priming the root canals before cementation of endodontic posts with self- or dual cure composites.

The strong adhesion of Oxford Bond TE Dual to etched enamel or dentine proceeds on principles similar to that occurring with glassionomer cements. Good, long lasting adhesive strength and good biocompatibility are attained by polycarboxylic acids.

Oxford Bond TE Dual can be used on slightly moist dentine surfaces (wet bonding technique).

### Contraindications

Do not use Oxford Bond TE Dual if the recommended working technique is not possible or if the patient is known to be allergic to any of the ingredients.

### Side effects

In singular cases, Oxford Bond TE Dual may cause a sensitizing reaction in patients with a hypersensitivity to any of the ingredients. In these cases, the material should not be used.

Irritations resulting from direct contact with the pulp cannot be ruled out. Therefore for pulp protection the cavity floor in cases of deep excavations should be covered with a thin layer of calcium hydroxide material.

### Incompatibility with Other Materials

Do not use in combination with substances containing eugenol because eugenol inhibits the polymerization of Oxford Bond TE Dual. Neither store the material in proximity of eugenol containing products, nor let the material allow coming into contact with materials containing eugenol.

## Application

### 1. Isolation

Rubber dam is the recommended method of isolation.

### 2. Cavity Preparation

Clean the tooth with flour of pumice and water prior to preparation. Prepare the cavity with minimal tooth reduction. Margins should have a slight (**0.5 - 1.0 mm**) bevel placed in the enamel to increase the surface area for greater bond strength.

### 3. Pulp Protection

Cavity floor of deep excavations should be covered with a thin layer of calcium hydroxide material.

### 4. Enamel and Dentine Conditioning

Recommended is the total etch technique. Apply an etching gel (e.g. Oxford Etch) onto the enamel and dentine surfaces beginning with the enamel bevels. Condition **the enamel for at least 15 seconds and the dentine for 15 seconds**. Deciduous teeth are etched correspondingly longer. Rinse for 20 seconds with water. Dry it in a water and oil-free airstream, but **do not** desiccate. A slightly wet dentine surface is

important for the function of Oxford Bond TE Dual. The etched enamel bevel should have a chalky white appearance.

### Etching precaution:

It is essential, that etched areas are not contaminated by anything. If contamination occurs, re-etch, rinse with water and dry as above. Avoid etching gel contact with oral soft tissues, eyes and skin. If accidental contact occurs, flush immediately with copious amounts of water.

## 5. Application of Oxford Bond TE Dual

### For light cure composites:

Apply Oxford Bond TE Dual Part A generously with a brush onto the enamel and dentin surfaces for **30 seconds** with agitation. The material should build a homogeneous layer. Remove excess material carefully. Dry cautiously with oil free air for about 15 seconds to remove all volatile components and to disperse the adhesive to an even layer. Do not desiccate the dentine.

Cure the Oxford Bond TE Dual Part A coating by exposing its entire area to a dental halogen light unit for **20 seconds** before application of a second layer of Oxford Bond TE Dual Part A.

**Notes:** Do not rinse off the Oxford Bond TE Dual Part A! If not used immediately, place dispensed Oxford Bond TE Dual Part A in subdued light to prevent premature polymerization by incident light. The Oxford Bond TE Dual Part A will **not** self cure.

Apply again the Oxford Bond TE Dual Part A generously with a brush onto the adhesive surfaces as described above. before placement of a light cure composite.

### For self cure and dual cure composites:

One drop of Oxford Bond TE Dual PART A and one drop of Oxford Bond TE Dual PART B were combined in a mixing pallet and mixed for 5-10 seconds under subdued light.

### Note:

Do not interchange lids of the bottles, because this can lead to a cross-contamination of the liquids.

Apply the Oxford Bond TE Dual mixture generously with a brush onto the enamel and dentine surfaces for **30 seconds** with agitation. The material should build a homogeneous layer. Remove excess material carefully. Dry cautiously with oil free air for about 15 seconds to remove all volatile components and to disperse the adhesive to an even layer. Do not desiccate the dentine.

Cure the Oxford Bond TE Dual coating by exposing its entire area to a dental halogen light unit for **20 seconds** before application of a second layer of Oxford Bond TE Dual.

Without light cure apply the second layer after drying with oil free air.

Apply again the Oxford Bond TE Dual mixture generously with a brush onto the adhesive surfaces as described above before placement of a composite.

It is essential that the primed dentine and enamel surfaces are dry and contaminant free for the application of the composite. The self cure or dual cure composite can be applied immediately.

## 6. Application of the Composite

### 6.1. Direct Restorations

Apply the restorative material according to the instructions of the manufacturer.

### Light cure restorative materials:

Best results are obtained with application of a thin layer of a light cure flowable composite followed by the application of a moldable composite. Light cure each composite layer separately according to the corresponding user instructions.

### **Self or dual cure restorative materials:**

Apply a self cure or dual cure composite according to the user instructions. Light cure in case of dual cure composites shortens setting time.

### **6.2. Indirect Restorations**

Refer to manufacturers instructions for application of **indirect restorations**.

For cementing of the indirect restoration a self cure or dual cure composite cement is applied according to the user instructions.

## **7. Application of Oxford Bond TE Dual in Root Canals**

### **7.1. Isolation**

Use of a rubber dam to isolate the tooth is strongly recommended.

### **7.2. Root Canal Preparation**

Prepare and clean the root canal according to the instructions of the selected post manufacturer. Dry the root canal but do not desiccate.

Etch the root canal with an etching gel (e.g. Oxford Etch) for **15 seconds** and rinse with water using an endodontic irrigation syringe. Blot the canal dry with soft paper tips, leaving the dentin visibly moist. A slightly wet dentine surface is important for the function of Oxford Bond TE Dual.

#### **Etching Precaution:**

It is essential, that etched areas are not contaminated by anything. If contamination occurs, re-etch, rinse with water and dry as above. Avoid etching gel contact with oral soft tissues, eyes and skin. If accidental contact occurs, flush immediately with copious amounts of water.

### **7.3. Application of Oxford Bond TE Dual**

One drop of Oxford Bond TE Dual PART A and one drop of Oxford Bond TE Dual PART B were combined in a mixing pallet and mixed for 5-10 seconds under subdued light.

#### **Note:**

Do not interchange lids of the bottles, because this can lead to a cross-contamination of the liquids.

Apply Oxford Bond TE Dual generously with a suitable brush on the prepared root canal walls for **30 seconds** with agitation. The material should build a homogeneous layer.

Remove excess material carefully e.g. with paper points. Dry cautiously with oil free air to remove all volatile components and to disperse the adhesive to an even layer. Do not desiccate.

Optional cure the Oxford Bond TE Dual coating by exposing its entire area to a dental halogen light unit for **20 seconds** before application of a second layer of Oxford Bond TE Dual.

### **7.4. Application of a 2nd Layer of Oxford Bond TE Dual**

Apply again the Oxford Bond TE Dual generously with a brush onto the adhesive surfaces as described under **7.3.** Optional light cure.

It is essential that the primed dentine and enamel surfaces are dry and contaminant free for the application of the composite. Proceed immediately with placement of the post.

### **7.5. Post Cementation**

Prepare the post according to manufacturer instructions.

Place the post with a flowable dual cure or self cure composite (e.g. Oxford Zircore NANO) into the root canal. For post stabilization light cure the coronal part of the cemented post for **20 seconds**.

### **Warnings**

- Unpolymerized material may have an irritating effect and may lead to a sensitizing reaction against methacrylates
- Avoid contact with skin, mucous membrane and eyes
- If the material comes into contact with skin, immediately wash with water and soap. If the material comes into contact with eyes, immediately rinse with copious amounts of water and seek medical advice if required.
- Commercial medical gloves do not protect against the sensitizing effect of methacrylates.

### **Storage**

Do not store above 25 °C (77 °F)!

Avoid storage in direct sunlight.

Do not use after expiration date (see expiration date on label/packaging)

### **Warranty**

First Scientific Dental Materials GmbH warrants this product will be free from defects in material and manufacture. First Scientific Dental Materials makes no other warranties including any implied warranty of merchantability or fitness for a particular purpose. User is responsible for determining the suitability of the product for user's application. If this product is defective within the warranty period, your exclusively remedy and First Scientific Dental Materials' sole obligation shall be repair or replacement of the First Scientific Dental Materials product.

### **Limitation of Liability**

Except where prohibited by law, First Scientific Dental Materials GmbH will not be liable for any loss or damage arising from this product, whether direct, indirect, special, incidental or consequential, regardless of the theory asserted, including warranty, contract, negligence or strict liability.

### **Keep away from children!**

**For dental use only!**

### **Caution:**

**Federal law restricts the sale of this device to or by the order of a dentist.**



**Manufacturer:**

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