

**General Information**  
Filtek™ Universal Restorative is a visible-light activated restorative composite optimized to create esthetic anterior and posterior restorations. The shades are body like opacity enabling up to a 2 mm depth-of-cure. The pink opaque can be placed in 1 mm thick increments. The shade is radiopaque. Filtek Universal Restorative is offered in the following shades: A1, A2, A3, A3.5, A4, B1, B2, D3, XW, and PO. The pink opaque shade option can be used to mask discolored or stained tooth structure, metal, and amalgam stains.

The fillers are a combination of a non-agglomerated/non-aggregated 20 nm silica filler, a non-agglomerated/non-aggregated 4 to 11 nm zirconia cluster (comprised of 20 nm zirconia and 4 to 11 nm zirconia particles), and a ytterbium trifluoride filler consisting of agglomerated 100 nm particles. The inorganic filler loading is about 76.5% by weight (58.4% by volume). Filtek Universal Restorative contains AUDMA, AFM, diurethane-DMA, and 1,12-dodecano-DMA. Filtek Universal Restorative is applied to the tooth following use of a methacrylate-based dental adhesive, such as manufactured by 3M ESPE, which permanently bonds the restoration to the tooth structure. Filtek Universal Restorative is packaged in traditional syringes and single-dose capsules.

**Indications**  
• Direct anterior and posterior restorations (including occlusal surfaces)  
• Core build-ups  
• Splinting  
• Indirect restorations including inlays, onlays, and veneers

**Precautionary Information for Patients**  
This product contains substances that may cause an allergic reaction by skin contact in certain individuals. Avoid use of this product in patients with known acrylic allergies. If prolonged contact with oral soft tissue occurs, flush with large amounts of water. If allergic reaction occurs, seek medical attention as needed, remove the product if necessary and discontinue future use of the product.

**Precautionary Information for Dental Personnel**  
Capsules may be warmed (Do not warm syringes).

This product contains substances that may cause an allergic reaction by skin contact in certain individuals. To reduce the risk of allergic response, minimize exposure to these materials. In particular, avoid exposure to uncured product. If skin contact occurs, expose the margins so they can be easily worked. Mark and a no-touch technique is recommended. Acrylicates gloves and a no-touch technique is recommended. Acrylicates gloves penetrate commonly used gloves. If product contacts glove, remove and discard glove, wash hands immediately with soap and water and then re-glove. If allergic reaction occurs, seek medical attention as needed.

3M SDS information can be obtained from [www.3M.com](http://www.3M.com) or contact your local subsidiary.

**Instructions for Use**  
**Preparation**  
1. Prophy: Teeth should be cleaned with pumice and water to remove surface stains and debris.  
2. Shade Selection: Before isolating the tooth, select the appropriate shade(s) of restorative material.

3. Isolation: A rubber dam is the preferred method of isolation. However, other isolation systems can be used by following their appropriate instructions for use.

**Direct Restorations**  
1. Cavity Preparation:  
1.1. Anterior restorations: Use conventional cavity preparations for all Class III, IV, and V restorations.

1.2. Posterior restorations: Prepare the cavity. Line and point angles should be rounded. No residual amalgam or other base material should be left in the internal form of the preparation that would interfere with light transmission and therefore, the hardening of the restorative material.

2. Pulp Protection: If a pulp exposure has occurred and if the situation warrants a direct pulp capping procedure, use a minimum amount of calcium hydroxide on the exposure followed by an application of Vitrebond™ Plus Light Cure Glass Ionomer Liner/Base, manufactured by 3M ESPE. Vitrebond liner/base may also be used to line areas of deep cavity excavation. See the Vitrebond liner/base instructions for details.

3. Placement of Matrix:  
3.1. For Anterior & Posterior restorations: Place the matrix system of choice by following the manufacturer's instructions for use.

4. Adhesive System: To bond Filtek Universal Restorative to tooth structure, use of a 3M ESPE dental adhesive (for example 3M™ ESPE® Scotchbond™ Universal Adhesive) is recommended. Refer to adhesive system product instructions for full instructions and precautions for the products. After curing the adhesive, continue to maintain isolation from blood, saliva, and other fluids and proceed immediately to placement of Filtek Universal Restorative.

5. Opaque Placement (Optional): If staining or discoloration of the tooth structure has occurred, we recommend placing 3M PO. Because of the higher opacity, it is important to apply the paste in layers with a maximum thickness of 1 mm to ensure complete curing of the material. Follow the dispensing, placement, and light curing instructions below for proper use.

6. Dispensing the Composite: Follow the directions corresponding to the dispensing system chosen.

6.1. Syringe: Dispense the necessary amount of restorative material from the syringe onto the mix pad by turning the handle slowly in a clockwise manner. To prevent oozing of the restorative when dispensing is completed, turn the handle counterclockwise a half turn to stop paste flow. Immediately replace the syringe cap. If not used immediately, the dispensed material should be protected from light with an appropriate cover.

6.2. Single-Dose Capsule: Insert capsule into 3M™ ESPE™ Restorative Dispenser, manufactured for 3M ESPE. Refer to separate restorative dispenser instructions for full instructions and precautions. Extrude restorative directly into cavity.

6.3. Placement & Light Curing: Place in increments and light cure the composite as indicated in Step 8.

7. Placement:  
7.1. Place and light cure restorative in increments as indicated in Step 8.

7.2. Contour and shape with appropriate composite instruments.

7.3. Avoid intense light in the working field.

7.4. Posterior placement hints:  
7.4.1. To aid in adaptation, the first 1 mm layer may be placed and adapted to the proximal box.

7.4.2. A condensing instrument (or similar device) can be used to adapt the material to all of the internal cavity aspects.

8. Curing: This product is intended to be cured by exposure to a halogen or LED light with a minimum intensity of 550mW/cm² in the 400-500 nm range. Cure each increment by exposing its entire surface to a high intensity visible light source, such as a 3M ESPE curing light. Hold the light guide tip close to the restorative as possible during light exposure.

**DEUTSCH**

**Allgemeine Informationen**

Filtek™ Universal Restorative ist ein lichthärtendes Füllungsmaterial, das für die klinische restorative Feste- und Gummiezahntechnik entwickelt wurde. Dieses Produkt entspricht einer Body-Masse und ermöglicht eine Durchhärtingstiefe von bis zu 2 mm. Der rosa Opaker kann in 1 mm starken Inkrementen appliziert werden. Alle Farbtöne sind röntgenaktiv. Filtek™ Universal Restorative wird in den folgenden Farbtönen angeboten: A1, A2, A3, A3.5, A4, B1, B2, D3, XW und PO. Mit dem rosafarbenen Opaker können verfärbte Zahnsstrukturen, Metall- und Amalgamverfärbungen abgedeckt werden.

Die Füllstoffe sind eine Kombination aus einem nicht agglomerierten/nicht aggregierten 20 nm Kieselsäurefüllstoff, einem nicht agglomerierten/nicht aggregierten 4 bis 11 nm Zirkoniumdioxidfüllstoff, einem aggregierten Zirkoniumdioxid/Siliziumdioxid-Clusterfüllstoff (bestehend aus 20 nm Kieselsäure und 4 bis 11 nm Zirkoniumdioxidpartikeln) und

		Cure Time	
Shades	Increment Depth	All halogen lights (with output 550-1000 mW/cm²)	LED lights (with output 1000-2000 mW/cm²)
Body	2.0 mm	20 sec.	10 sec.
Pink Opaker	1.0 mm	40 sec.	20 sec.

9. Konturierung: Contour restoration surfaces with fine finishing diamonds, burs or stones. Contour proximal surfaces with Sof-Lex™ Finishing Strips, manufactured for 3M ESPE.

10. Adjust Occlusion: Check occlusion with a thin articulating paper. Examine centric and lateral excursive contacts. Carefully adjust occlusion by removing material with a fine polishing diamond or stone.

11. Finishing and Polishing: Polishing with the Sof-Lex™ Diamond Polishing System, or Sof-Lex™ Finishing and Polishing System is recommended.

**Indirect Procedure for Inlays, Onlays, or Veneers**

1. Dental Operatory Procedure

1.1 Shade selection: Choose the appropriate shade(s) of Filtek Universal Restorative prior to isolation.

1.2 Preparation: Prepare the tooth.

1.3 Impressioning: After preparation is complete, make an impression of the prepared tooth by following the manufacturer's instructions of the impressioning system chosen. A scanning system, such as one manufactured by 3M ESPE, may be used.

1.4 Digital Scanning Systems: Alternatively, a digital scan may be taken to replace the impressioning step above. Follow the manufacturer's instructions of the scanning system chosen. A scanning system, such as one manufactured by 3M ESPE, may be used.

2. Laboratory Procedure

2.1 Pour the impression of the preparation with the die stone. Place pins at the preparation site at this time if a "triple tray" type of impression was used.

2.2 Separate the cast from the impression after 45 to 60 minutes. Place pins in die and base the cast as for a typical crown and bridge procedure. Mount or articulate the cast to its counter model on an adequate articulator.

2.3 If a second impression was not sent, pour a second cast using the same impression registration. This is to be used as a working cast.

2.4 Section out the preparation with a laboratory saw and trim away excess or, expose the margins so they can be easily worked. Mark the margins with a red pencil if needed. Add a spacer at this time if one is required.

2.5 Soak the die in water, then with a brush, apply a very thin coat of a separating medium to the preparation, let it dry somewhat, and then add another thin layer.

2.6 Add the first increment of composite to the floor of the preparation, stay sharp of the margins, and follow the cure recommendations described in the Direct Restorations (Step 8).

2.7 Place and cure additional increments of composite. Allow for the last increment (incisal) to include the contact areas.

2.8 Place the die back into the articulated arch. Add the last increment of composite to the occlusal surface. Overfill very slightly mesially, distally, and occlusally. This will allow for the mesiodistal contacts and the proper occlusal contact when the opposing arch is brought into occlusion with the uncured increment. Light cure for only ten seconds, then remove the die and prevent adhering to adjacent surfaces. Finish the curing process following the cure times in the Direct Restorations (Step 8).

2.9 With the occlusal contacts already established, begin removing the excess composite from around the points of contact. Develop the inclines and ridges as per remaining occlusal anatomy.

2.10 Care must be taken when removing the prosthesis from the die. Break off small amounts of the die from around the restoration, the die should break away cleanly from the cured restoration, until all of the restoration is recovered.

2.11 Using the master die, check the restoration for flash, undercuts, and fit. Adjust as necessary, and then polish as noted above in Direct Restorations (Steps 9 – 11).

3. Dental Operatory Procedure

3.1. Roughen the interior surfaces of the indirect restoration.

3.2 Clean the prosthesis in a soap solution in an ultrasonic bath and rinse thoroughly.

3.3 Cementation: Cement the prosthesis using a 3M ESPE resin cement system, manufactured by 3M ESPE following manufacturer's instructions.

**Cleaning & Disinfection**

3.1. Für anteriore und posteriore Restaurierungen: Platzieren Sie das Matrizensystem Ihrer Wahl, indem Sie die Gebrauchsanweisung des Herstellers befolgen.

3.2. Gussabreitung: Gießen Sie die Kavität vorbereitet aus.

3.3. Absetzung: Befestigen Sie die indirekte Restauration mit einem 3M Composite-Befestigungszement, gemäß den Anweisungen des Herstellers.

**Reinigung und Desinfektion**

Der Mehrweg-Dispenser ist nicht für den direkten Patientenkontakt vorgesehen. Verwenden Sie beim Umgang mit dem Dispenser neue, nicht kontaminierte Handschuhe. Anweisungen zur Reinigung und Desinfektion des Dispensers sind unten aufgeführt:

**Schritt 1 (Reinigung):**

Verwenden Sie ein CaviWipes™, oder ein gleichwertiges Reinigungstuch, und wischen Sie die gesamte Oberfläche des Geräts mindestens 30 Sekunden lang gründlich ab, bis kein sichtbarer Schmutz mehr auf dem Gerät vorhanden ist.

**Schritt 2 (Desinfizieren):**

Verwenden Sie ein CaviWipes™, oder ein gleichwertiges Desinfektionsmittel mit Alkohol-quaternären Ammoniumverbindungen, um die gesamte Oberfläche des Geräts zu desinfizieren. Dabei unbedingt die Anweisungen zur Desinfektion des Dispensers befolgen.

**3. Application des Komposit: Folgen Sie den Anweisungen für das jeweilige Applikationssystem.**

3.1. Spritze: Applizieren Sie zunächst etwas Füllungsmaterial aus der Spritze auf ein Mixpad, indem Sie den Griff langsam im Uhrzeigersinn drehen. Um ein Mixpad mit dem Füllungsmaterial zu füllen, das mit dem Polymerisationslicht interferiert und damit die Aushärtung verhindert wird, müssen Sie die Spritze auf den Kontaktzeitpunkt des Füllungsmaterials verzögern.

3.2. Einzeldosis-Kapsel: KapSEL in 3M™ ESPE™ Dosierspender eingesetzen. Ausführliche Anweisungen und Vorsichtsmaßnahmen finden Sie in den Anweisungen für den Dispenser. Applizieren Sie das Füllungsmaterial direkt in die Kavität.

3.3. Applikation und Lichthärtung: Platzieren Sie das Material schichtweise und lassen Sie das Komposit wie in Schritt 8 aushärten.

3.4. Reinigung: Reinigen Sie die Innenflächen der indirekten Restauration an.

3.5. Reinigen Sie die Restauration in einer Seifenlösung im Ultraschallbad und spülen Sie sie gründlich ab.

3.6. Befestigung: Befestigen Sie die indirekte Restauration mit einem 3M Composite-Befestigungszement, gemäß den Anweisungen des Herstellers.

**Reinigung und Desinfektion**

Der Mehrweg-Dispenser ist nicht für den direkten Patientenkontakt vorgesehen. Verwenden Sie beim Umgang mit dem Dispenser neue, nicht kontaminierte Handschuhe. Anweisungen zur Reinigung und Desinfektion des Dispensers sind unten aufgeführt:

**Schritt 1 (Reinigung):**

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**Schritt 2 (Desinfizieren):**

Verwenden Sie ein CaviWipes™, oder ein gleichwertiges Desinfektionsmittel mit Alkohol-quaternären Ammoniumverbindungen, um die gesamte Oberfläche des Geräts zu desinfizieren. Dabei unbedingt die Anweisungen zur Desinfektion des Dispensers befolgen.

**3. Application:**

3.1. Platzieren Sie das Füllungsmaterial in Schichten und lassen Sie es aushärten, wie in Schritt 8 angegeben.

3.2. Konturieren und formen Sie das Material mit geeigneten Instrumenten zur Kompositüberarbeitung.

3.3. Vermeiden Sie intensive Licht im Arbeitsbereich.

3.4. Hinweise zur Anwendung im Seitenzahnbereich:

3.4.1. Um die Adaption zu erleichtern, kann die erste 1-mm-Schicht platziert und an die proximale Box angepasst werden.

3.4.2. Ein Plan- oder Kugelstopfer (zweiter, eine ähnliches Instrument kann verwendet werden, um alle Unterschriften und Hohlräume auszufüllen.

**Customer Information**

No person is authorized to provide any information which deviates from the information provided in this instruction sheet.

**Disposal – See the Safety Data Sheet (available at [www.3M.com](http://www.3M.com) or through your local subsidiary for disposal information).**

**7. Placement:**

7.1. Place and light cure restorative in increments as indicated in Step 8.

7.2. Contour and shape with appropriate composite instruments.

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7.4.1. To aid in adaptation, the first 1 mm layer may be placed and adapted to the proximal box.

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