

# 3M ESPE

## Protemp™ Crown Temporization Material

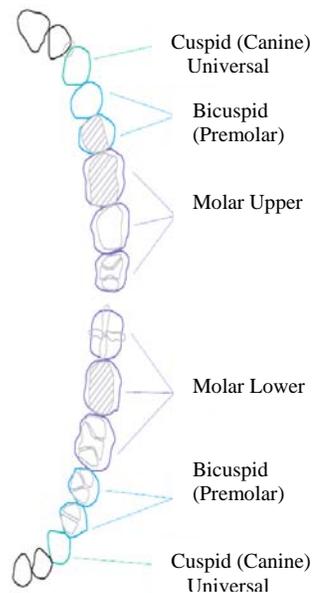
### General Information

Protemp™ Crown Temporization Material manufactured by 3M ESPE, is designed for use as a short-term temporary restoration. It is a self-supporting, malleable, visible light activated composite crown that allows for a custom fit.

### Indication

- Short-term temporary restoration  
For temporary restoration of permanent teeth prepared for single unit crowns.
  - Bicuspid (Premolar)
  - Cuspid (Canine)
  - Molar

Size Selection Chart	
Crown Name	Approximate Range Mesial Distal Width
<b>BICUSPID (Premolar) Upper</b>	
Bicuspid (Premolar) Upper S	6 - 7 mm
Bicuspid (Premolar) Upper L	7 - 8 mm
<b>MOLAR (1st &amp; 2nd) Upper</b>	
Molar Upper S	9 - 10 mm
Molar Upper L	11 - 12 mm
<b>CUSPID (Canine) Universal</b>	
Cuspid (Canine) Universal S	6 - 7 mm
Cuspid (Canine) Universal L	8 - 9 mm
<b>BICUSPID (Premolar) Lower</b>	
Bicuspid (Premolar) Lower	6 - 9 mm
<b>MOLARS (1st &amp; 2nd) Lower</b>	
Molar Lower S	9 - 10 mm
Molar Lower L	11 - 12 mm



## **Tooth Preparation**

Prepare tooth using conventional techniques.

## **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 acrylate allergies. 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:**

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 contact occurs directly with the skin, wash skin with soap and water. Use of protective gloves is recommended; however, acrylates may penetrate commonly used gloves. After product placement, remove and discard gloves, wash hands immediately with soap and water and then re-glove. If allergic reaction occurs, seek medical attention as needed.

## **Storage and Use**

- Do not expose the crowns to elevated temperatures or intense light.
- Unopened kits should be refrigerated (40° F or 4°C) to extend shelf life. Allow product to come to room temperature for use.
- Do not store materials in proximity to eugenol containing products.
- The crowns are designed for use at room temperature of approximately 21-24°C or 70-77° F.
- Shelf life at room temperature is 24 months. See outer packaging for expiry date.
- Do not use product after the expiration date.

## **Instructions For Use**

### **1) Size Selection**

**Determine proper size crown.** After tooth is prepared, determine the proper Protemp Crown size.

- Measure the mesial-distal width of the prepared tooth using the 3M ESPE Crown Size Tool or a caliper. (Note: adequate tooth structure is necessary to retain crown)

**3M ESPE Crown Size Tool.** *The Crown Size Tool contains graduated widths from 7-12 millimeters. Insert the tool until contact is made with the adjacent teeth and in line with contact points and resting on the occlusal surface of the crown preparation. Slide tool between adjacent teeth (the tool will wedge). The wedging point, relative to the tool establishes the approximate mesial distal width of the Protemp Crown. The 3M ESPE Crown Size Tool is designed for single use.*

### **Select crown.**

- Select the Protemp Crown that coincides with the approximate mesial distal width range provided on the Size Selection Chart.
- Remove the Protemp Crown from the sealed crown case.
- Hold film between thumb and finger and carefully remove film from Protemp Crown.

#### *Note:*

- *Measure carefully, once removed from sealed package, the crown cannot be placed back into the package for re-use at a later date.*
- *Protemp Crowns are light sensitive and precaution should be taken to minimize ambient and operatory light exposure.*

## **2) Protemp Crown Preparation**

- Gently roll crown in gloved fingers to pre-warm and straighten axial walls.

#### *Note:*

- *If the Protemp Crowns are stored in a cool environment, gently rolling the axial wall of the crown will make it more malleable and less prone to fracture during placement.*
- *Gently rolling eliminates the flare at the margin and reduces the circumference of the crown at the margin.*

*As the crown is placed onto the tooth preparation it will expand and hug the preparation.*

### **Trim Protemp Crown.**

- Determine the amount of excess to be removed from the Protemp Crown by measuring the approximate height of the adjacent teeth. This can be done by using the 3M ESPE Crown Size Tool, perio-probe, or by placing the Protemp Crown on the preparation.
- Follow the gingival contour when trimming excess material to establish proper crown length using a crown scissor.
- Be conservative in removing excess material.

## **3) Adaptation**

### **Adapt Protemp Crown.**

- Seat trimmed Protemp Crown to verify length.
- Adapt, shape and establish interproximal contacts and preparation margins for a snug fit onto the moist preparation.
- Have patient gently close to establish occlusion, open to adapt occlusal surface.

### **Adapt buccal margin.**

- While patient is in occlusion adapt the facially accessible margin.

*Note:*

- *After the crown is adapted to the prepared tooth a tack-cure is required to reduce the possibility of distortion upon removal. Do Not Over Tack Cure.*

- Tack cure the buccal surface using a dental curing light for 2-3 seconds.

### **Adapt lingual margin.**

- Have patient open, holding crown in place.
- Adapt lingual margin. While adapting the lingual margin apply finger pressure to the adapted buccal surface to prevent dislodging.
- Tack cure the lingual surface for 2-3 seconds.
- Tack cure the occlusal surface for 2-3 seconds.

*Note:*

- *A dental curing light with a wavelength range 420-500 nm and a minimum light intensity of 400 mW/cm<sup>2</sup> is recommended*
- *Avoid looking directly at the light guide and do not stare at the light reflection from the crown surfaces while curing*
- *The use of an eye shield or protective glasses that effectively block light below 500 nm wavelength is recommended*

#### **4) Final Light Cure**

- Carefully remove the Protemp Crown.
- Light cure adapted Protemp Crown outside of the mouth for a total of 60 seconds.
- Fully light cure by exposing all surfaces of the Protemp Crown to the light.

#### **5) Finish and polish**

- Trial fit cured Protemp Crown and make necessary adjustments.
- Check occlusion.
- Use a standard method to finish and polish.
- Finish using a fine carbide bur and/or 3M ESPE Sof-Lex™.
- Polish using a dry muslin rag wheel or polishing brush.

#### **6) Temporary Cementation**

- Isolate the tooth.
- Clean preparation.
- Lightly air dry. **DO NOT OVER DRY THE TOOTH**

#### **Prepare temporary cement.**

- Prepare temporary cement following manufacturer instructions and apply cement to the internal surface of the Protemp Crown.
- Care should be taken to prevent air entrapment during mixing and seating.

#### **Place crown.**

- Using gentle thumb pressure, slowly seat crown into place.
- Have patient gently close into occlusion and allow excess cement to flow out.

**Remove excess cement.**

- Follow cement manufacturer’s instructions for proper set time.
- Carefully check the sulcus of the treated teeth and the surrounding areas: remove any cement residue that remains in the sulcus and along the Protemp Crown margin.
- Clean the interproximal areas by drawing a piece of knotted floss back and forth under the contact points.

**Custom Characterization and Repair**

Use a flowable; for example a 3M ESPE flowable, Protemp™ AddOn Material or Sinfony™ Magic Stain for custom characterization. Make custom characterization, correction or repair with no need for a bonding agent. If you intend to use other products, refer to the pertinent manufacturer’s instructions for use.

**3M ESPE Flowable / Protemp AddOn / Sinfony Magic Stain to Protemp Crown**

The composite materials can be applied to the final and clean surface of the Protemp Crown.

- Roughen the bonding surface of the Protemp Crown with a rotary instrument.
- Protemp Crown should be free from contamination – e.g. saliva or polishing dust. Use alcohol to clean surface.
- Thoroughly dry with a stream of air.
- Apply the composite materials in increments to the Protemp Crown.
- Follow recommended light cure times for composite materials.
- Finishing and polish as recommended in the “Finish and Polish” instructions.

The finished crown should approximate, as nearly as possible, the original tooth in terms of space occupied in the arch, proper relationship with adjacent teeth and functional occlusion with the opposing dentition.

### Warranty

**3M ESPE warrants this product will be free from defects in material and manufacture. 3M ESPE 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 exclusive remedy and 3M ESPE's sole obligation shall be repair or replacement of the 3M ESPE product.**

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