

**General Information**

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

**Indications**

Protemp Crown temporization material is indicated for use as a temporary pre-formed crown to cover a single permanent tooth abutment.

Protemp Crown temporization material can be used to model pre-existing tooth structure and anatomy for use in digital imaging applications.

**Note:**

- The clinician's decision to restore a tooth using Protemp Crown temporization material should be based upon optimal clinical needs of the patient. A professional assessment of oral health, chewing habits, and patient concerns should be factored into the decision.

**Size Selection Chart**

Crown Name	Approximate Range Mesial Distal Width
BICUSPID (Premolar) Upper	6 - 7 mm Bicuspid (Premolar) Upper S Bicuspid (Premolar) Upper L
MOLAR (1st & 2nd) Upper	9 - 11 mm Molar Upper S Molar Upper L
CUSPID (Canine) Universal	6 - 8 mm Cuspid (Canine) Universal S Cuspid (Canine) Universal L
BICUSPID (Premolar) Lower	6 - 9 mm Bicuspid (Premolar) Lower
MOLARS (1st & 2nd) Lower	9 - 11 mm Molar Lower S Molar Lower L

**Abutment Preparation**

Prepare abutment using conventional techniques. (Note: adequate abutment structure is required to retain crown). In case of small abutment dimensions (e.g. narrow cast post and core), relining is recommended to obtain optimal fit and retention.

**Precautionary Information for Patients:**

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 the uncured product. If contact occurs directly with the skin, wash skin with soap and water. Use protective gloves if 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, remove the product if necessary and discontinue future use of the product.

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3M ESPE MSDSs can be obtained from www.3MESPE.com/MSDS or contact local subsidiary.

**Instructions For Use****1 Size Selection**

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

Measure the mesial-distal width of the prepared tooth using the 3M ESPE Crown Size Tool or a caliper.

**3M ESPE Crown Size Tool**

The 3M ESPE Crown Size Tool contains graduated widths from 7-12 millimeters. Insert the tool until contact is made with the adjacent tooth and in fine 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 tooth 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.

When in doubt about the size, use the smaller sized crown.

• Remove the Protemp Crown from the sealed crown case.

• Hold film between thumb and finger and carefully remove film from Protemp Crown.

• Remove the Protemp Crown from the sealed crown case.

• 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 Crown is 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, peri probe, or by placing the Protemp Crown on the preparation.

• Follow the gingival contour when trimming excess material to establish proper crown length using cross scissors.

Make sure to trim enough material. If too little material is trimmed before checking occlusion, the occlusal surface of the crown can be damaged which can lead to fracturing when the crown is cemented.

**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 facial 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 facial 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 facial surface to prevent dislodging.

• Tack cure the lingual surface for 2-3 seconds.

• Tack cure the occlusal surface for 2-3 seconds.

After tack curing, remove the crown and reseat several times to check fit before final cure.

Notas:

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.

5 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<sup>TM</sup> Contouring and Polishing Discs.

• Polish using a dry muslin rag wheel or polishing brush.

• Check all adapted margins of the finished and polished crown prior to cementation, and make further adjustments if necessary.

**Note:**

- Finish and polish steps help to maintain shine and stain resistance.

- Proper adaptation of the margin is needed for optimal marginal integrity. Adaptation and smooth finishing of the crown margin (facial, lingual, interproximal) are needed to reduce the likelihood of leakage and gingival tissue irritation.

**6 Cementation**

• Isolate the tooth.

• Clean preparation.

• Lightly air dry. DO NOT 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 entrainment during mixing and seating.

For longer term applications, use a stronger cement per manufacturers instructions.

**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.

**Note:** It is important to follow the instructions for use very closely.

In addition, for optimal performance:

• When in doubt, select the smaller crown size

• Make sure to trim enough material.

- If too little material is trimmed before checking the occlusion, the occlusal surface of the crown may be damaged which can lead to fracturing upon cementation.

• After tack curing, remove the crown and reseat several times to check the fit before final cure.

**Protemp Crown for Digital Imaging**

In its uncured state, Protemp Crown temporization material is soft and moldable. In this malleable stage, the crown can be reshaped to model pre-existing tooth structure and anatomy. Once the desired shape is achieved, the crown is fully cured for 60 seconds. This crown can then be placed and scanned to produce a digital image.

**Custom Characterization and Repair**

Use a flowable, for example 3M ESPE Filtek<sup>TM</sup> Supreme XT Flowable, or Protemp<sup>TM</sup> Plus for custom characterization. Custom characterization using either of these materials does not require the use of a bonding agent. If you intend to use other products, refer to the pertinent manufacturer's instructions for use.

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composite, fotopolimerizable y maleable que permite un ajuste personalizado.

#### Indicaciones de uso

El material para provisoralización de coronas Protemp Crown está indicado para provisionalizar coronas unitarias sobre dientes tallados/muñones.

El material para provisoralización de coronas Protemp Crown puede utilizarse para modelar dientes y anatomía preexistentes en aplicaciones de imágenes digitales y CAD/CAM.

**Nota:**

La decisión del clínico para restaurar un diente con el material para provisoralización de coronas Protemp Crown debe basarse en las necesidades clínicas óptimas del paciente. En dicha decisión se debe considerar la evaluación por parte de un profesional de la salud oral, hábitos de masticación y las preocupaciones del paciente.

Tabla de selección de tamaño

Nombre de la corona	Intervalo aproximado de anchura mesio-distal
BICÚSPIDE (premolar) superior	
Bicúspide (premolar) superior S	6 - 7 mm
Bicúspide (premolar) superior L	7 - 8 mm
MOLAR (1º y 2º) superior	
Molar superior S	9 - 11 mm
Molar superior L	11 - 12 mm
CUSPIDE (canino) universal	
Cúspide (canino) universal S	6 a 8 mm
Cúspide (canino) universal L	8 a 9 mm
BICÚSPIDE (premolar) inferior	
Bicúspide (premolar) inferior	6 a 9 mm
MOLARES (1º y 2º) inferiores	
Molar inferior S	9 a 11 mm
Molar inferior L	11 a 12 mm

