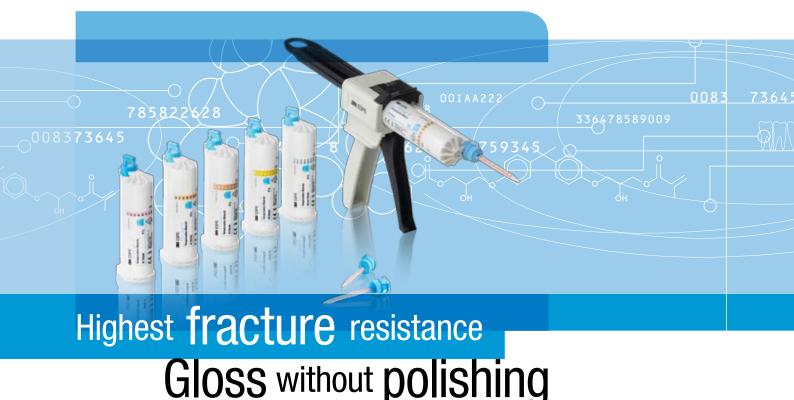
Protemp™ 4

Temporization Material



Key features

- Record-breaking toughness and fracture resistance
- Sophisticated filler technology provides strength and beauty
- Easier and faster handling and fabrication
- Smooth, glossy surface requires no polishing or glaze
- Easy plaque removal to support gingival health

Indications

- Crowns
- Bridges
- Inlays and onlays
- Veneers
- Long-term temporaries

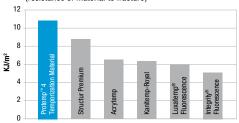
The benchmark in strength and aesthetics.

With Protemp™ 4 Temporization Material, 3M ESPE has applied its leading expertise in temporization and nanotechnology to set another milestone in temporary crown and bridge materials.

Record-breaking toughness and high fracture resistance.

In vitro tests prove Protemp 4 material is tougher than all temporary materials on the market — making it also suitable for long-term temporization. Toughness is defined by flexural strength and deflection/flexibility which indicates the amount of energy that can be absorbed before fracture.

Material toughness/fracture work (resistance of material to fracture)



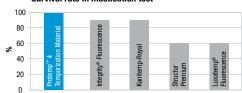
In a test measuring material toughness, Protemp™ 4 Temporization Material showed greater resistance to fracture than other tested temporization materials.

Source: V. Babcic, R. Perry and G. Kugel, Tufts University, Boston, MA, U.S.A., AADR 2008, #0371

Greater mechanical strength means a higher survival rate of temporary restorations.

In an in vitro test, 3-unit bridge temporaries made of Protemp 4 material and other competitive materials were subjected to mastication simulations that closely simulated the in vivo situation. Various toughness measurements indicated a higher chance of survival in real life for Protemp 4 temporization material.

Survival rate in mastication test



Survival of 3-unit bridges in mastication tests: 10 samples of each product tested with 450,000 loading cycles (100N) and 3,000 thermocycles (5-55°C).

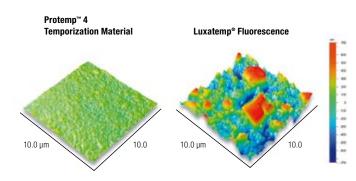
Source: 3M FSPF internal data



Gloss without polishing or glazing – a benchmark in surface quality.

Enhanced by 3M ESPE nanotechnology, Protemp™ 4 Temporization Material produces a smooth, glossy surface from the beginning, as below topography pictures show. Simply cleaning the temporary with ethanol results in a brilliant, natural-looking gloss - eliminating the need for polishing or glaze. Other advantages include:

- · Better colour stability
- Easy plaque removal to support gingival health during the wear time of the temporary restoration



Surface topology of Protemp™ 4 and Luxatemp® Fluorescence after removing of the inhibition layer with alcohol and no further polishing.

Source: 3M ESPE internal data – Atomic Force Microscopy (AFM) images by 3M Corporate Research Analytical Laboratory – (CRAL)

Patient-pleasing aesthetics and fluorescence close to nature.

ProtempTM 4 Temporization Material's fluorescence pigments match very well with the fluorescence of natural teeth, creating temporaries that look naturally beautiful in all lighting conditions.

Human tooth



Protemp™ 4 Temporization Material



Comparing the fluorescence of temporization materials under ultraviolet light shows Protemp™ 4 Temporization Material looks almost the same as natural teeth.

Source: 3M ESPE internal data

The Protemp™ Temporization Family – The top-of-the-class solution in temporaries.

With Protemp™ 4 Temporization Material and Protemp™ Crown Temporization Material - the world's first malleable and lightcurable composite crown for single-unit temporaries – 3M ESPE now offers a complete line of temporization materials – providing first-rate performance, reliability and state-of-the-art quality for all temporary indications and needs.

Ordering Information

Item No.	Product Information
	Protemp™ 4 Temporization Material
46953	Protemp [™] 4 Temporization Material Intro Kit – A2 1 cartridge – 50 ml, A2; 16 Garant [™] Mixing Tips, blue; 1 Garant [™] Dispenser 10:1, technique card, instructions
	Refills
46959	Protemp [™] 4 Temporization Material Refill – Bleach 1 cartridge – 50 ml, Bleach; 16 Garant [™] Mixing Tips, blue; instructions
46954	Protemp [™] 4 Temporization Material Refill – A1 1 cartridge – 50 ml, A1; 16 Garant [™] Mixing Tips, blue; instructions
46956	Protemp [™] 4 Temporization Material Refill – A2 1 cartridge – 50 ml, A2; 16 Garant [™] Mixing Tips, blue;

instructions 46957 Protemp™ 4 Temporization Material Refill - A3 1 cartridge – 50 ml, A3; 16 Garant[™] Mixing Tips, blue; instructions 46960 Protemp™ 4 Temporization Material Refill - B3 1 cartridge – 50 ml, B3; 16 Garant™ Mixing Tips, blue; instructions



Protemp™ 4 shades match Filtek™ Supreme XT Flowable Restoratives from 3M ESPE. For high-precision preliminary impressions we recommend Position™ Penta™ (Quick) VPS Alginate Replacement and the single-use Position™ Tray from 3M ESPE.



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