

## INDICATION

PermaCem-Dual is a dual cure compomer cement for permanent luting of e. g.

- crowns and bridges
- inlays and onlays

## ADVANTAGES

- Especially suited for all-ceramic restorations
- Automatic mixing
- Excellent fit owing to its low film thickness
- Isolates against thermal influences
- Radiopaque
- Fluoride release

## APPLICATION

### Preparation

1. Thoroughly wash and dry internal surface of restoration before cementation.

For ease of clean-up, place separating medium (e.g. Vaseline, glycerine) on external aspect of restoration.

Cementation of all-ceramic restorations: Etch and silanize internal aspect of restoration. Please refer to the respective instructions for use.

2. Thoroughly remove all provisional cement from the tooth.
3. Rinse and dry with air syringe or cotton pellets, being careful to avoid pooling. Do not desiccate.

### Preparation of Application

PermaCem-Automix Dual: see page 8

PermaCem-Smartmix Dual: see page 9

### Bonding

Use a suitable bonding agent if a parallel sided preparation is not possible. Without a bond PermaCem-Dual's adhesion will be achieved by classical cement retention.

Do not use PermaCem- Dual with One-Bottle-Bonding systems. For application of a hydrophilic primer and a bond (2- or 3-Bottle-Bonding system), please refer to the respective instruction for use.

### Cementation of Restoration

1. Dispense PermaCem-Dual either into the restoration or directly onto the restoration from the cannula.

**Working time from start of mixing = 2 minutes**

2. Seat the restoration under light pressure. Verify complete seating, then have the patient bite slowly into occlusion. A bite stick may be used.

3. After placement, PermaCem-Dual will set under conditions of the mouth within 1:30 to 2:00 minutes, to a doughy state that allows clean-up.

**Clean-up: 1:30 - 2:00 minutes after placement**

4. Light cure the material with a usual dental halogen lamp for at least 20 seconds. After that the restoration is initially fixated. Highly opaque ceramic materials, e.g. with aluminium oxide cores, may inhibit an effective light curing.

**Fixation of restoration: Light cure 20 seconds**

The restoration is fully functional after 5:00 minutes.

**Complete setting: 5 minutes after placement**

## CLEAN-UP

Removal of excess material should be done during the doughy state (1:30 - 2:00 minutes after application). Easy removal of excess material in interproximal areas is only possible during this phase.

1. Remove all excess cement from around margins with a scaler. Begin with interproximal areas.
2. Floss interproximal areas gently.

## PLEASE NOTE

- **Do not use PermaCem-Dual together with Eugenol-containing materials.** We recommend the use of eugenol-free temporary cements (e.g. DMG's TempoCemNE-Automix).
- Cementation of telescopic crowns and bridges: Please

make sure, that PermaCem-Dual cannot get between the primary and secondary crown, by using a suitable separating agent.

## COMPOSITION

Ionomer glass in a Bis-GMA based matrix of dental resins, activator, catalyst and additives.

## SIDE EFFECTS

There are no known systemic side effects to date; however, do not use PermaCem-Dual

- in cases where known allergies to the components exist,
- if in some cases individual contact allergies may exist.

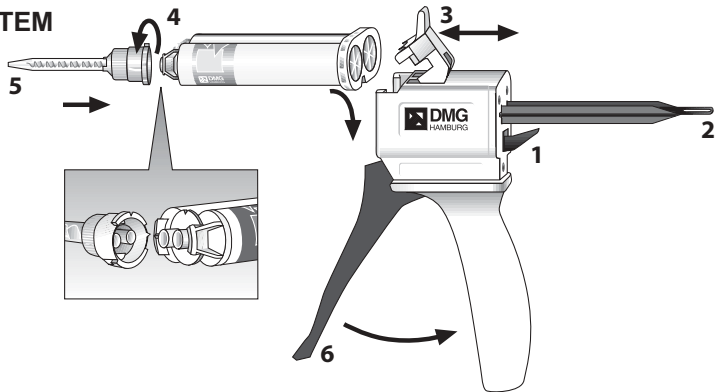
## STORAGE

- Store and use at room temperature 18 - 23 °C/64 - 73 °F (refrigerated material is more viscous and cures more slowly).
- Do not use after expiration date.

Federal law (USA) restricts this device to sale by, or on the order of a dentist, or other practitioner licensed by law of the state in which he or she practices to use or order the use of this device.

**Keep away from children! For dental use only!**

## CARTRIDGE SYSTEM



- 1 Inserting a cartridge:** Push up lever (1) in back of the dispenser and make sure slide (2) is inserted completely into the dispenser. Lift plastic lever (3) on top of dispenser and insert cartridge. Push down firmly on lever (3) to lock in cartridge.

Notch on bottom of the cartridge aligns with the notch on the dispenser.

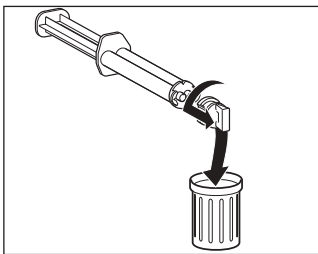
- 2 Attaching a mixing tip:** Before attaching a mixing tip, remove cartridge cap (4) by turning 90° counter clockwise and pull. Line up the notch on the mixing tip (5) with the corresponding notch on the cartridge. Push a new mixing tip (5) onto the cartridge and turn it clockwise 90° until it locks into position.

- 3 Dispensing material:** The material is dispensed through the mixing tip by pulling the trigger (6) of the dispenser and can be applied directly.

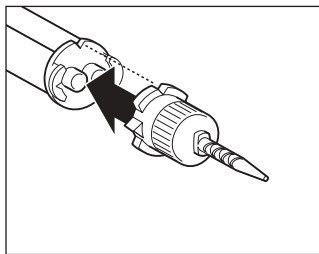
When using a cartridge for the first time, express a "pea" size amount of material and discard. Leave an used cannula on the cartridge until next use. It serves as a cap.

- 4 Removal of cartridge:** Push up lever (1) and pull slide flush (2). Lift plastic lever (3) on the top of gun and remove cartridge.

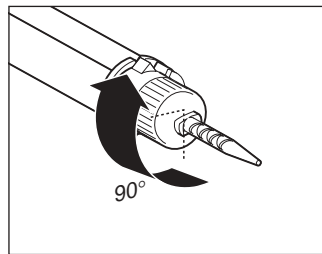
## SMARTMIX-SYSTEM



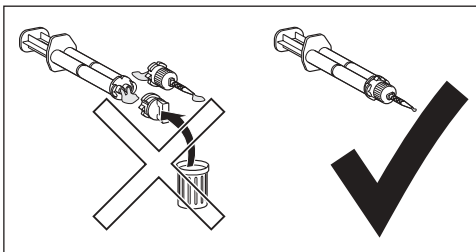
**1** Before attaching the Smartmix-Tip, remove syringe cap by turning 90° counter clockwise, pull and remove it.



**2** Push a Smartmix-Tip onto the syringe. Line up the notch on the tip with the corresponding notch on the syringe.



**3** Turn the tip 90° clockwise until it locks into position. The material is mixed in the tip and can be directly applied.



Leave the used tip on the syringe. It serves as a cap.