## Harvard MTA Universal

# Endodontic bioactive repair cement based on diverse mineral oxides

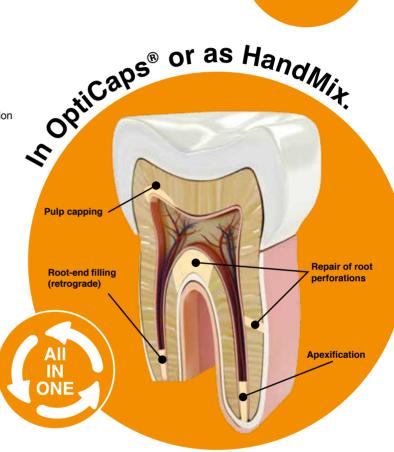
1892 \* HARVARD

(Mineral-Trioxide-Aggregat)

#### **Properties**

- Highly biocompatible material
- Formation of tertiary dentin over the pulp ("dentin bridge")
- Formation of a protective layer preventing bacterial penetration with the formation of calcium hydroxid and apatite
- Excellent bond to dentin
- Dimensional stability (no shrinkage)
- Excellent seal
- Comfortable application with guttapercha and other root canal sealers
- Setting not affected by humidity
- Bacteriostatic with its high pH-value
- Radiopaque, easy readable at radiographs
- Next clinical step possible after 5 min





#### Indications

- Repair of root perforations
- Root-end filling (retrograde)
- Apexification / orthograde root-end filling
- Direct and indirect pulp capping
- Repair of internal resorption
- Pulpotomy







#### Avdantages of powder / liquid

- Flexible and economical.
- · Adapt the consistency based on the procedure.
- Can easily be mixed to a nice creamy consistency.

#### Avdantages of OptiCaps®

- Easy handling and reproducible.
- Nice creamy consistency: fast and consistent.

Technical Data		Technical Data
Mixing ratio Powder / liquid (by weight)	2/1 2.6/1 3/1	Mixing time (23 °C / 73 °F)

Working time

(23 °C / 73 °F) 3 min 2 min 1 min (23 °C / 73 °F) 2 min

Next clinical step after 5 min 5 min 5 min Next clinical step after 5 min



#### Due to MTA, good long term prognosis.

Working time







30 sec

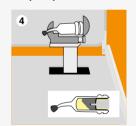
- 1. Initial situation: Damaged root canal wall and demineralized bone.
- 2. After treatment: Root canal perforation sealed with Harvard MTA Universal.
- After one year: Perfect seal of the application areas.New remineralized bone and better retention of the tooth.

### Click before you mix. Instructions for activating and mixing Harvard OptiCaps®

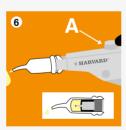












- 1. OptiCaps® before activation.
- 2. Activation: press the plunger to the end into the capsule.
- Insert the OptiCaps<sup>®</sup> into the applier and click once to standardize.
- 4. Mix the OptiCaps®.
- 5. Insert the OptiCaps® into the applier. Remove the pin. Pull the lever twice (2 clicks) to prime the OptiCaps®.
- **6.** Unlock the gun (push button A) and remove the OptiCaps®.

Article Information	Order no
Harvard MTA Universal OptiCaps®	7081502
2 OptiCaps® ea. 0.3 g,	
ea. packed in an aluminium pouch	

Article Information	Order no.
Harvard MTA Universal HandMix	7081507
1 g powder, 3 ml liquid, dosing spoon, mixing pad, spatula	



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