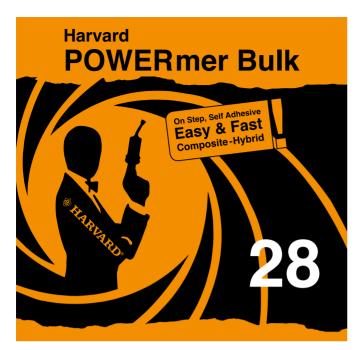
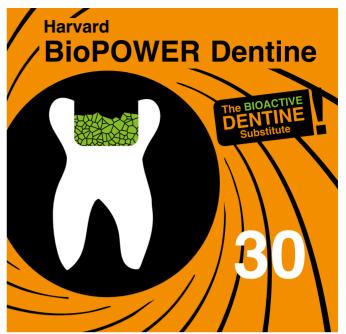
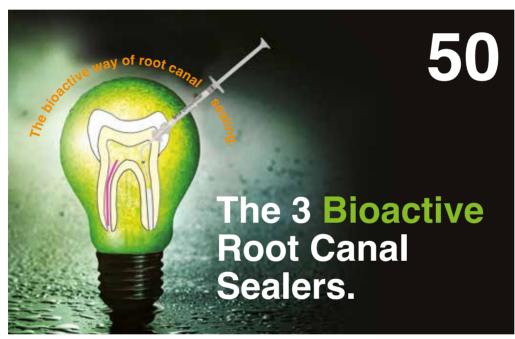
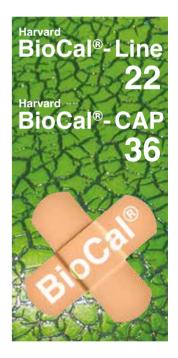
# **HARVARD®**

















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# experts

Your opinion counts – because it is YOU who makes the difference!
In the daily practice routine, you always have to be up to date.
Our experts have created specialized information on the Harvard products.
And it is really helpful ...





Dentist Dr. Basel Houri Damascus, Syria Specialist area: Restoratives



Dentist MSc. Andreas Kluschke Gelting, Germany

Specialist area: Restoratives



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Specialist area: Endodontics



Kay Zischow Zischow Dental Hamburg GmbH,

Hamburg, Germany

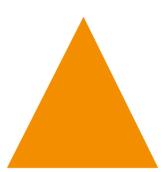
Specialist area: Prosthetics



Dr. Mohammed Sac Dentex Clinic,

Riadh, Saudi Arabia

Specialist area: Prosthetics



#### **HARVARD**

# RESTORATIVES

A large selection of composite restoratives, cavity liners, adhesives and filling cements in classic or resin reinforced versions makes up the comprehensive Harvard range in the area of restoration.

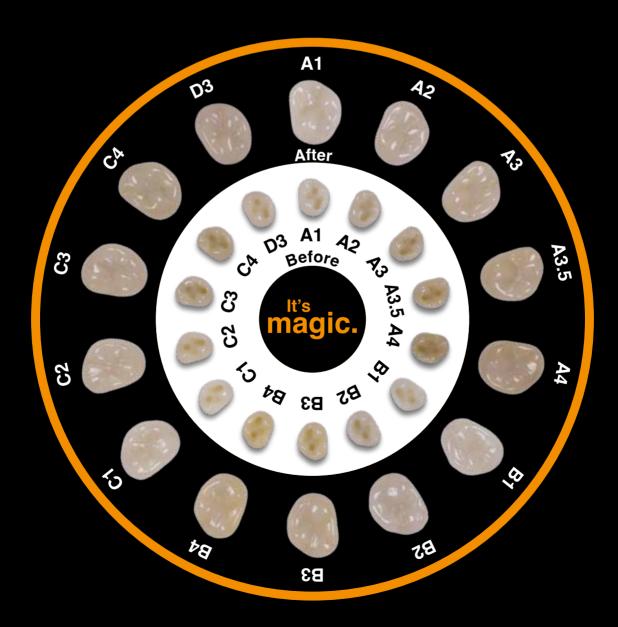
- >> Filling Composites
- >> Liners
- >> Light Cure Adhesives
- >> Filling Cements
- >> Pulp Protection

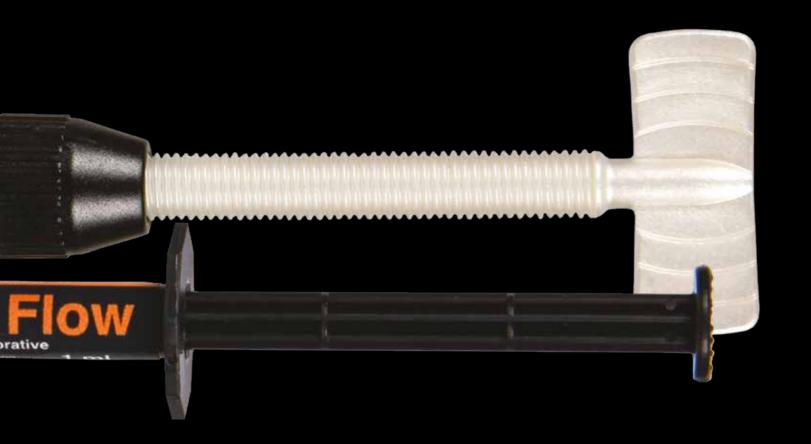


# Multi-Shade Restorative

Multi-Shade Restorative







# Marvard Chrome It's magic.

# Shade-adaptive composite for almost all tooth shades.

- >> Hyper-Nano technology, spherical fillers
- Without any color pigments
- Light-optical chameleon effect for perfect match with natural tooth substance
- Simple storage logistics

# Filling Composites Restoratives



Dentist Dr. Basel Houri





### "Easy to use and excellent results."

"Patient came to the office having an old composite restoration from canine to canine. And you can see old dull not shine composite filling with discoloration."





- 1: Sharps and broken edges with open margins.
- 2: After applying the wedges and the retraction cord for pushing the gingiva, removed the old composite fillings and made new preparations, excavation of the decays, have a sound dentine to get an optimal place for dentine shade.
- **3:** Applying on interproximal areas Harvard MultiChrome composite.
- 4: Restoration before polishing.
- 5: Restoration after polishing.
- 6: MultiChrome restoration.





"Broken incisal edge 21. Apply Harvard Block 'n Mask then Harvard MultiChrome Multi-Shade Restorative."











Optimal shadeadaptation for almost all tooth shades after light polymerization.

**Order Details** 

Harvard MultiChrome
3 g syringe

20 x 0.25 g OptiTips®

Harvard MultiChrome Kit

Harvard Block 'n Mask

20 x 0.25 g OptiTips®

Harvard Applier OptiTips®

3 g syringe

3 syringes ea. 3 g Harvard MultiChrome, 1 syringe 3 g Harvard Block 'n Mask 7100001

7100002

7100009

7100005

7100007

7095200

## Harvard MultiChrome

#### Light cure, multi-shade, composite restorative

- >> Shade-adaptive composite for almost all tooth shades
- >> Invisible transition between enamel, dentine and composite
- >> Spherical fillers
- >> Hyper-Nano technology
- >> Without any color pigments
- >> Light-optical chameleon effect
- >> Superior handling properties
- >> Non-sticky consistency, stays where placed
- >> Permanent high gloss after polishing
- >> Low shrinkage
- >> High abrasion resistance
- >> Excellent physical strength
- >> Radiopaque
- >> Opalescent
- >> Simple storage logistics



#### Harvard Block 'n Mask

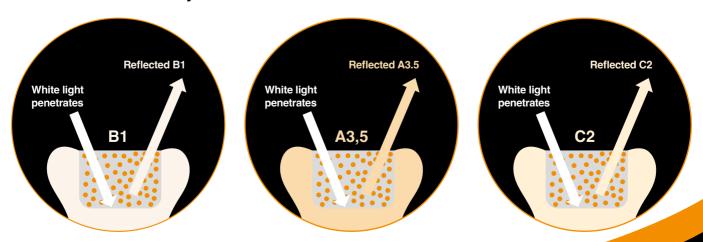
Composite for blocking and masking

Corrects the background for shade matching in difficult situations (e.g. when the dark oral cavity shines through) and in case of strong discolourations





**Harvard MultiChrome** with round Hyper-Nano fillers. White light is refracted and reflected in cavity color.



# MultiChrome Flow

#### **Perfect for** small enamel restorations.

- Hyper-Nano technology, spherical fillers
- Shade-adaptive composite for
   Without any color pigments
   Light-optical chameleon effect
   Simple storage logistics Shade-adaptive composite for almost all tooth shades

- Simple storage logistics



# Filling Composites Restoratives

Order Details

2 x 1 ml syringe incl. 8 needle tips H18

2 x 1 ml syringe

incl. 8 needle tips H18

Harvard NeedleTips H18

Harvard MultiChrome Flow

Harvard Block 'n Mask Flow

7100003

7100006

#### Harvard

#### **MultiChrome Flow**

#### Light cure, multi-shade, flowable composite restorative

- >> Shade-adaptive flowable composite for almost all tooth shades
- >> Invisible transition between enamel, dentine and composite
- >> Spherical fillers
- >> Hyper-Nano technology
- >> Without any color pigments
- >> Light-optical chameleon effect
- >> Excellent handling
- >> Optimal flow consistency, thixotropic
- >> Permanent high gloss after polishing
- >> Low shrinkage
- >> High abrasion resistance
- >> Excellent physical strength
- >> Radiopaque
- >> Opalescent
- >> Simple storage logistics



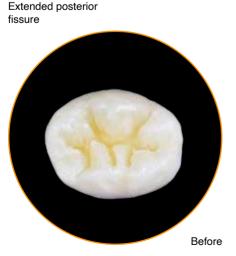
#### Harvard Block 'n Mask Flow

Flowable composite for blocking and masking

Corrects the background for shade matching in difficult situations (e.g. when the dark oral cavity shines through) and in case of strong discolourations



#### with chameleon effect.



Restoration with Harvard MultiChrome Flow



Optimal shadeadaptation for small enamel restorations.

#### **Filling Composites Restoratives**



Dentist MSc. Andreas Kluschke





"Perfect esthetic results with the Harvard UltraFill Multi Opacity layering technique."



# **Multi Opacity Cases**



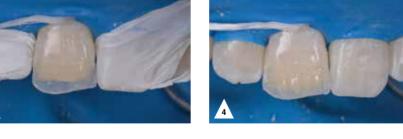


Dr. Pawel Paszkiewicz













#### "For this demanding case I decided to use Harvard UltraFill."

- 1: Initial situation with incisor tooth fracture
- 2: Removal of the old composite, Silicone impression
- 3: A palatal shell was cast on as a basis for the restoration
- 4: Mamelons were prepared with dentine composite (90% opacity - Harvard UltraFill A1 D)
- 5: Final layer was applied to the mamelons with enamel opacity (80% opacity - Harvard UltraFill A1 E) and an incisal edge of Harvard UltraFill INC
- 6: After the 3D anatomical correction

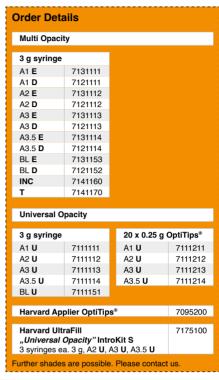


# Harvard UltraFill

Ultra gloss, opalescent, high performance composite for anterior and posterior restorations

- >> Permanent high gloss
- >> Opalescence
- >> Tooth-like fluorescence
- >> Easy to work with
- >> Superior handling properties
- >> Low polymerization shrinkage
- >> High abrasion resistance
- >> Optimal physical properties
- >> Radiopaque





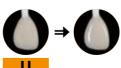


#### Multi Opacity layering technique



- >> Multiple shades in various opacities
- >> Excellent permanent esthetics
- >> Chameleon effect

#### Universal Opacity easy technique



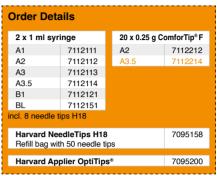
- >> Selected shades in **one** opacity
- >> In 80 % of clinical cases best compromise of opacity

# Harvard

**UltraFill Flow** 

Ultra gloss, opalescent, flowable composite for anterior and posterior restorations

- >> Easy polishability, permanent high gloss
- >> Opalescence
- >> Optimal flow consitency
- >> Thixotropic
- >> Tooth-like fluorescence
- >> Reduced polymerization shrinkage
- >> High abrasion resistance
- >> Optimal physical properties
- >> Easy to work with
- >> Radiopaque
- >> Available in ComforTip®F



No stock item, please contact the Harvard sales team.







ComforTip®F 0.25 g



Dentist MSc. Andreas Kluschke



1: Tooth 14 and 15 Wedge-shaped defects



2: Class V restorations after high gloss polish

"Easy and quick to polish, durable high gloss."



#### **Filling Composites Restoratives**

#### Harvard **PremiumFill®**

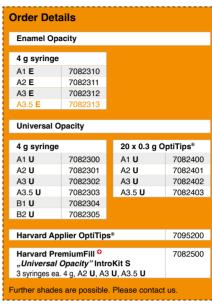
Nano-optimized hybrid composite for posterior and anterior restorations

- >> Excellent esthetics
- >> Superior handling properties
- >> Non-sticky consistency and highly sculptable
- >> Low polymerization shrinkage
- >> Tooth-like fluorescence
- >> Excellent high gloss polishability
- >> High abrasion resistance
- >> Optimal physical properties
- >> Nano-filler technology



\* HARVARD

4 g



No stock item, please contact the Harvard sales team.



Dentist MSc. Andreas Kluschke





"Very nice esthetic results."

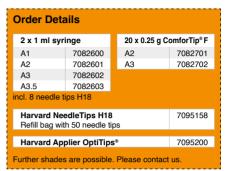
1: Defective large composite filling on tooth 46 2: New excellent high gloss filling with Harvard PremiumFill •



# PremiumFlow<sup>6</sup>

Nano-optimized hybrid flowable composite for posterior and anterior restorations

- >> Optimal flowable consistency
- >> Thixotropic
- >> Excellent high gloss polishability
- >>> Beautiful esthetic restorations
- >> Low polymerization shrinkage
- >> Low abrasion
- >> Improved mechanical properties













Dentist MSc. Andreas Kluschke









"Perfect flow properties for the construction of sophisticated anatomical shapes (e.g. incisal and cervical restorations)."

- 1: Defective filling
- 2: After removal etching and bonding
- 3: Application of

Harvard PremiumFlow •

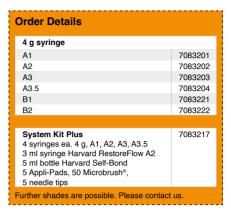
4: Polished filling



#### Harvard Restore

Universal light cure microhybrid composite

- >> Suitable for anterior and posterior restorations
- >> Nice non-sticky consistency
- >> Low abraison
- >> Good polishability
- >> Tooth-like fluorescence
- >> Good price / performance ratio



HARVARD

Restore



#### Harvard

#### **RestoreFlow**

Universal flowable light cure microhybrid composite

- >> Suitable for anterior and small posterior restorations and for lining of cavities
- >> Controlled flow
- >> Good mechanical properties
- >> Tooth-like fluorescence
- >> Good price / performance ratio







#### Use your prefered composite to restore the enamel.

Bulk fill up to 4 mm with Harvard IonoSphere Bulk Flow



Finalized restoration with your trusted moldable composite e.g. Harvard UltraFill or Harvard PremiumFill •



Order Details

2 x 1 ml syringe

Universal 7100011

Harvard NeedleTips H18

Refill bag with 50 needle tips

Harvard Applier OptiTips®

20 x 0.25 g OptiNeedleTips

Universal 7100012

7095158

7095200

#### **Harvard** IonoSphere Bulk Flow

Flowable composite with bioceramic fillers for a fast bulk dentine filling

- >> Bulk dentine filling up to 4 mm layer thickness
- >> Good flow properties
- >> Very low shrinkage
- >> Very low shrinkage stress
- >> Acid-inhibiting
- >> Ion-active
- >> Radiopaque



#### With bioceramic fillers for precise and fast bulk dentine filling.

The layer thickness of up to 4 mm enables efficient bulk filling. The flowable material is self-leveling at the surface and thus easy and quick to apply, with excellent adaptation on the cavity walls. The final layer can be carried out with the desired shade of a moldable composite. Harvard IonoSphere Bulk Flow exhibits a very low shrinkage and very low shrinkage stress, is ion-active with a high fluoride release and acid-inhibiting.

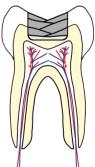


Class 2 cavity

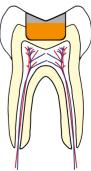


Base in cavity up to 4 mm in one layer

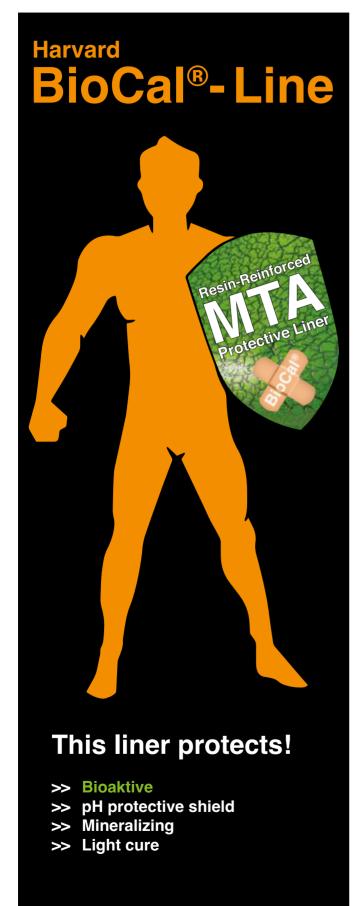
#### Increment technique



Bulk flow technique



# Liners Restoratives



Dentist MSc. Andreas Kluschke

"Maximum pulp protection with light-curing bioactive MTA liner in deep caries lesions."







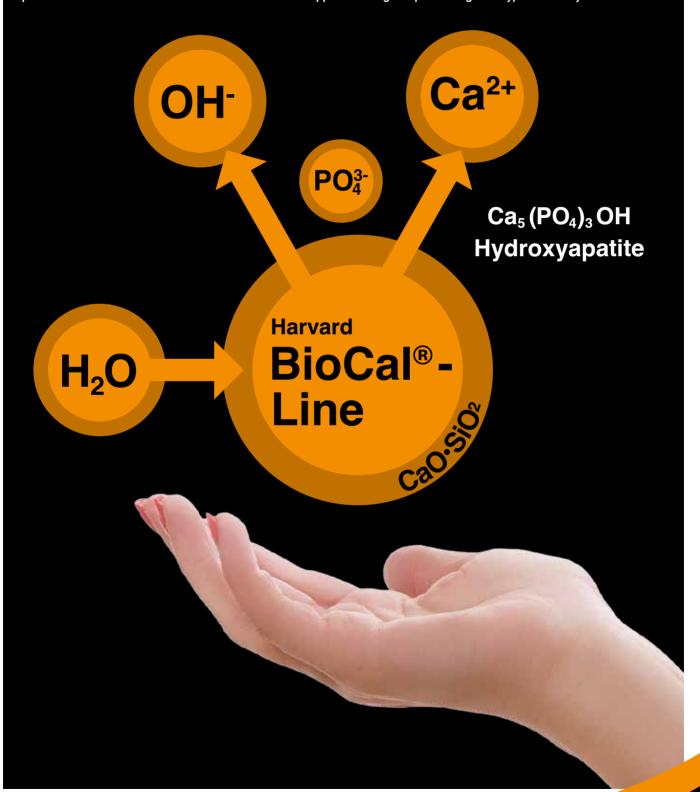


- 1: Premolar after initial preparation
- 2: Full caries excavation
- **3:** Cavity lining with **Harvard BioCal®-Line** after application of adhesive system
- 4: Composite restoration with Harvard UltraFill



Harvard BioCal®-Line ia a bioactive, light cure, resin-reinforced MTA protective liner. The good strength and the protective effect of the MTA components (high alkalinity and mineralization) ensure pulp protection with sufficient stability for subsequent filling at the same time. Harvard BioCal®-Line is moisture-tolerant, insoluble and exhibits high radiopacity. Harvard BioCal®-Line can be applied very precisely, even in deep cavities. Light cure ensures a controlled curing.

The release of calcium and hydroxyl ions promotes mineralisation. A safe and gap-free pulp protection. The high alkaline pH creates an environment hostile to bacteria and thus supports healing and protects against hypersensitivity.



# Harvard BioCal®-Line

#### Bioactive, light cure, resin-reinforced MTA protective liner

- >> Perfect as a thin-layer, protective liner in deeper cavities
- >> Also suitable for indirect and direct pulp capping
- >> Environment hostile to bacteria (pH 11)
- >> Mechanically stable
- >> Short setting times due to light cure
- >> Mineralizing
- >> Compatible with all composite restorative materials
- >> Radiopaque

Technical data		
Flexual strength	76	MPa
Compressive strength	187	MPa
Calcium release (24 h)	204	μg / cm²
pH value (24 h)	11	



**Order Details** 

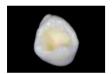
1 g syringe, 12 needle tips

Harvard NeedleTips H22

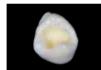
Refill bag with 50 needle tips

7081554

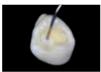
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Class I cavity



Class I cavity after application of an adhesive



Application of Harvard BioCal®-Line

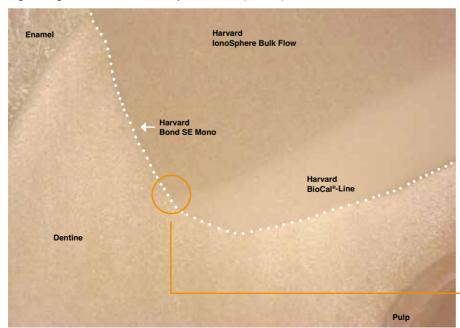


Harvard BioCal®-Line cured after 40 seconds light curing



Harvard BioCal®-Line should be used with a dentine adhesive, idealy with Harvard Bond SE Mono. Harvard Bond SE Mono does not restrict the bioactive effect. A continuous gap-free marginal seal and high alkaline bioactive MTA components protect pulp and dentine equally, especially in deep restorations.

High strength values and minimal layer thickness (≤ 1 mm) form the foundation for safe and reliable restorative therapy.



Laser microscopic image (magnification: 5x / 0.13)

Deep composite restoration close to the pulp Experimental Tooth. Preparation (cross section) after one-week storage in artificial saliva (37  $^{\circ}\text{C}$  / 98,6  $^{\circ}\text{F}$ , thermocycling)



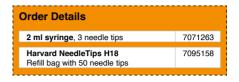
Image detail (magnification: 50x / 0.95)
Interface: Dentine / Harvard IonoSphere
Bulk Flow & Dentine / Harvard BioCal®-Line
In between: Harvard Bond SE Mono

#### Harvard

#### CalciumHydroxide LC

Calcium hydroxide liner, light cure, resin-based with calcium release, pH 11

- >> Suitable for indirect pulp capping
- >> High pH level with antimicrobial effect
- >> Optimal flow
- >> Radiopaque
- >> Good price / performance ratio







# Harvard IonoLine

Glass ionomer liner, light cure, resin-modified with fluoride release

- >> Suitable as liner or base
- >> Containes fluoride
- >> Perfectly flowing
- >> Radiopaque
- >> Good price / performance ratio





# InterLock® ONE

#### **Universal** Adhesive

- Universal: suitable for all tooth conditioning techniques: with or without etching gel, wet or dry
- >> Only one thin layer necessary
- >> High and reproducible bond strength to enamel and dentine even under long term stress
- >> Effective marginal seal for low risk of postoperative sensitivity
- >> Excellent performance also with self or dual cure composites
- Convenient and precise application with the triangle ergonomic bottle with defined drop size

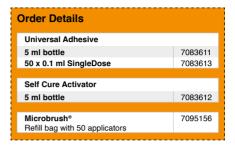
If light curing of Harvard InterLock® ONE cannot be achieved, please mix with Harvard InterLock® ONE Self Cure Activator.

#### Harvard InterLock® ONE Self Cure Activator

- Activator for safe adhesion in indications, where light curing of Harvard InterLock® ONE cannot be ensured (e.g. in the root canal)
- >> Ideal for cementing of posts with dual and self cure composites









# Harvard InterLock®

Very strong, self-etch, light cure bonding within two steps

- >> Long-term, strong and safe adhesion to enamel and dentine
- >> High and even bond strength
- >> Extremely reliable
- >> Easy and fast application
- >> Excellent seal
- >> Not technique and moisture sensitive
- >> Hydrophilic for wet bonding technique
- >>> For perfect margins to protect against secondary caries

#### The gold standard





# Bond SE Mono

Self-etch, light cure bonding; etching, priming and bonding in one step

- >> Strong and long-lasting adhesion to enamel and dentine
- >> Only one layer necessary
- >> Hydrophilic for wet bonding technique
- >> Good price / performance ratio



Order Details	
5 ml bottle	7083601
Microbrush® Refill bag with 50 applicators	7095156

# Harvard Self-Bond

Self-etch, light cure bonding

- >> For bonding of composites on dentine and enamel
- >> No extra etching necessary
- >> Only one layer necessary
- >> Easy application
- >> Hydrophilic for wet bonding technique
- >> Good price / performance ratio





5 m

## Harvard Bond TE Mono

Light cure one bottle adhesive for total-etch technique

- >> Strong bonding to enamel and dentine
- Strong bonding of light cure composites, non-precious and precious metals
- >> Hydrophilic for wet bonding technique
- >> 2 bonding layers necessary; very strong adhesion
- >> Good price / performance ratio



Order Details
5 ml bottle 7083607

## Harvard **Etch**

Thixotropic etching gel for etching of enamel and dentine

- >> Selective enamel etching or total-etch technique for:
  - >> Composite restorations
  - >> Sealing of fissures
  - >> Adhesive cementation of inlays, onlays, crowns and bridges
- >> Optimal consistency: stays where placed
- >> Thixotropic, controlled etching
- >> Good price / performance ratio







# Harvard POWERmer Bulk

High strength, self adhesive, dual cure composite-hybrid for restorations

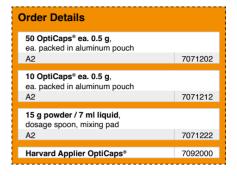
- >> Bulk fill material
- >> No increments necessary
- >> Dual cure
- >> Self-adhesive
- >> No shrinkage
- >> No adhesive necessary!
- >> Fluoride release
- >> In strength, wear, esthetics and polishing: LIKE A COMPOSITE!
- >> Translucent
- >> Radiopaque
- >> HandMix or OptiCaps®
- >> Quick and easy!
- >> An Alternative to Amalgam!

















Universal, self-adhesive resin-modified high-performance glass ionomer cement. Bulk Fill.

Harvard POWERmer Bulk is a tooth-coloured bulk filling material with the high mechanical strength of composite and the esthetic appearance of composite. No adhesive required. This makes Harvard POWERmer Bulk an ideal alternative to amalgam.



Dr. Amir Ibrik D.D.S, N.D.B, E.R.B, MSc

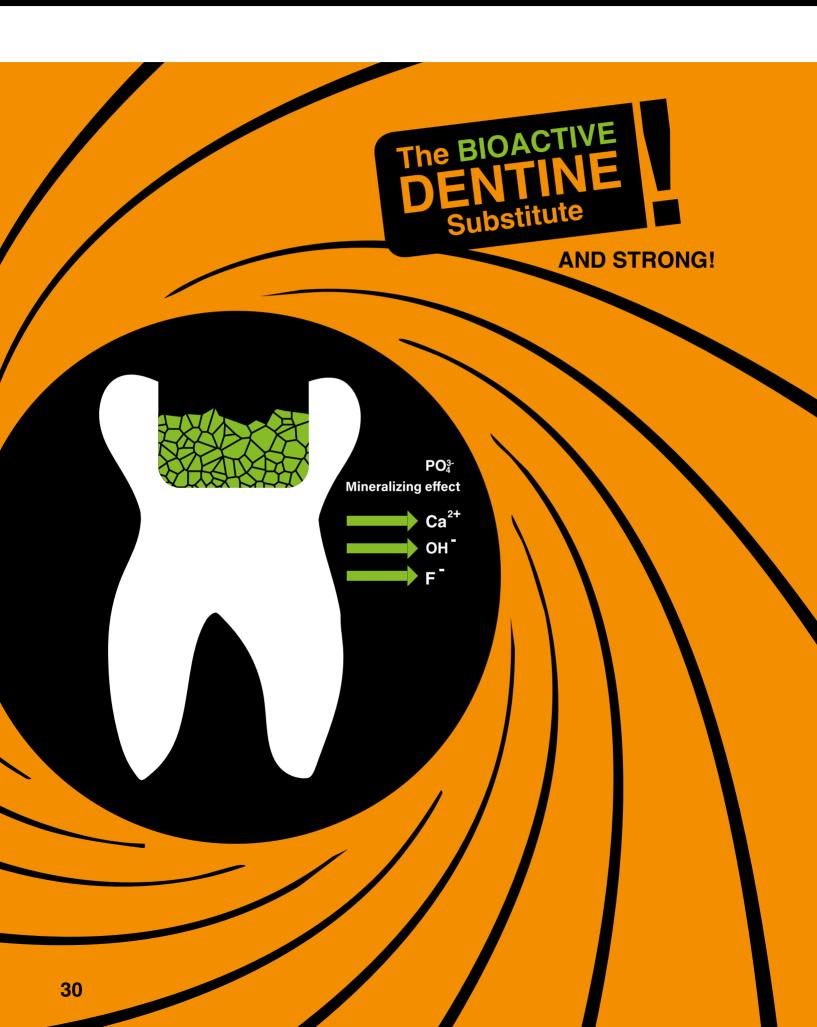






"This is an alternative to amalgam? Amazing!"

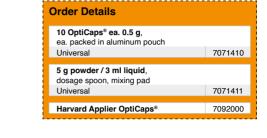
- 1: Mixing for 10 seconds 2: Harvard POWERmer Bulk is applied without adhesive
- 3: Finished restoration after 20 seconds of light cure



#### **Harvard BioPOWER Dentine**

Bioactive, dual cure MTA-modified composite-hybrid dentin substitute

- >> pH value: 12
- >> Calcium release
- >> Fluoride release
- >> Bioactive
- >> Dual cure
- >> Self-adhesive
- >> No shrinkage

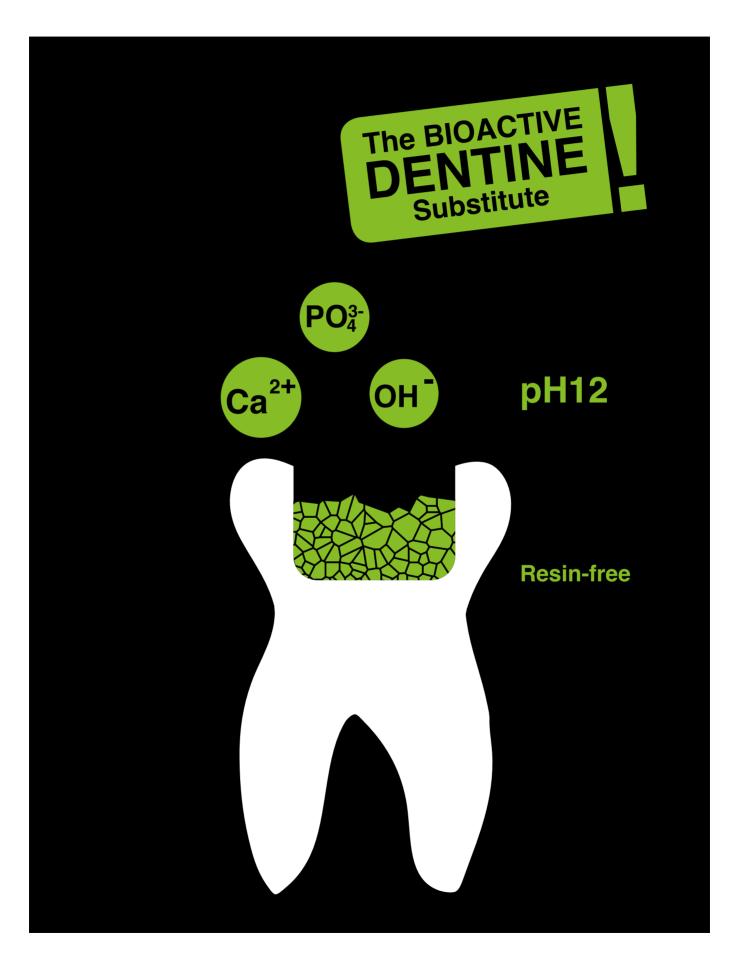




Harvard BioPOWER Dentine is an opaque dentine substitute based on MTA glass ionomer cement with calcium and fluoride release. In addition, the material can be light-cured on the surface to enable quick continuation of restoration.

The high compressive strength and a bacteriophobic environment, thanks to a high pH value of 12, ensure long-lasting results. Harvard BioPOWER Dentine shows no shrinkage and is self-adhesive.

A final enamel filling layer can be carried out by Harvard POWERmer Bulk directly, or - with a little more effort - with selective etch of the enamel, followed by an universal adhesive (e.g. Harvard InterLock® ONE), and followed by a suitable composite like e.g. Harvard PremiumFill+.



# BioPhosphate Dentine

Bioactive MTA zinc phosphate dentine substitute, self cure



MTA zinc phosphate dentine substitute
 pH value: 12
 Calcium release
 Bioactive
 Self cure
 Very low solubility
 Strong
 Opaque

>> Radiopaque

>> HandMix

PO<sub>4</sub>Mineralizing effect
OH
Ca<sup>2+</sup>



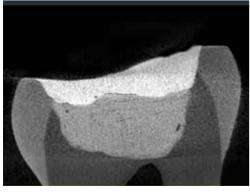
Close in composition / reaction to dentine!

Harvard BioPhosphate Dentine is an opaque dentine substitute based on MTA zinc phosphate cement with calcium release.

The high compressive strength and an environment hostile to bacteria, thanks to a high pH value of 12, ensure long-lasting results. **Harvard BioPhosphate Dentine** is volume stable and self-adhesive.

The reaction of MTA and phosphoric acid is mostly described to lead to calcium phosphate compounds e.g. apatite.

A final filling layer can be carried out by Harvard POWERmer Bulk directly, or – with a little more effort – with selective etch of the enamel, followed by an universal adhesive (e.g. Harvard InterLock® ONE), and followed by a suitable composite like e.g. Harvard PremiumFill+.





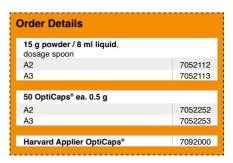
Harvard BioPhosphate Dentine covered with Harvard PremiumFill+ in an extracted tooth.

#### Harvard

#### IonoGlas Fill Extra

Esthetic classical glass ionomer cement for fillings, self cure

- >> Esthetics and natural translucency
- >> Convenient to apply and easy to handle
- >> Easy finishing
- >> Low solubility
- >> High fluoride release
- >> Radiopaque
- >>> HandMix or OptiCaps®







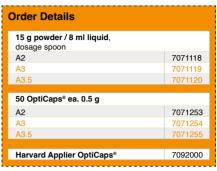


#### Harvard

#### IonoResin Fill Extra (LC)

Resin-reinforced glass ionomer cement for fillings, light cure

- >> Esthetic natural transparency
- >> Fine fillers
- >> Light- and self cure
- >> Good polishability
- >>> Very good mechanical properties, practically no shrinkage
- >> Practically insoluble
- >> Fluoride release
- >> Radiopaque
- >> HandMix or OptiCaps®



No stock item, please contact the Harvard sales team.





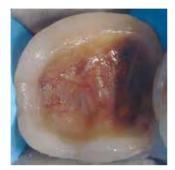




Prof. Angelo Itri

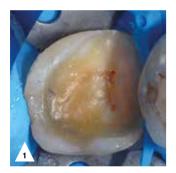
#### Case



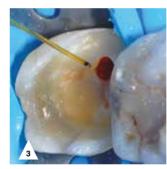


"The patient presented with secondary caries under the old restoration. The photo shows the typical active caries discoloration (brown-orange). The periapical radiograph (taken a few weeks earlier) showed no signs of apical rarefaction. According to the clinical rationale for the endodontic diagnosis, the radiographic distance between the caries and the pulp chamber was 0.67 mm, while the cold test had an intensity of 1 and a transit time of less than 30 seconds; there was no spontaneous pain. If we summarize these data, we are dealing with a probable "PULPAR HYPEREMIA" or "REVERSIBLE PULPITE", an indicative case for the implementation of Vital Pulp Therapy (direct pulp capping)."

#### "Preservation of pulp vitality"















- 1: After removal of the carious tissue, an opening of the mesial vestibular pulp horn with a diameter of less than 1 mm can be seen
- 2: To determine the quality of the bleeding, a mini-pulpotomy was performed with a spherical tungsten carbide bur
- 3 + 4: Bleeding was controlled within 30 seconds, confirming the diagnosis of reversible pulpitis. An 810 diode laser attached to a 400-micrometer fiber was used to control the gemacium to facilitate the placement of the biocompatible coating material
- 5+6: Insertion of BioCal®-CAP onto the exposed pulp
- 7: Result

#### Conclusion

"BioCal®-CAP is a viable alternative to older generation materials (MTA) for preserving the pulp when it is exposed due to carious pathology. The hybrid chemical composition of BioCal®-CAP allows the direct restoration procedure to be performed easily by reducing the time required for the procedure. The success of pulp-preserving procedures depends in advance on the clinical conditions of the case to be treated."



# Harvard BioCal®-CAP

#### Bioactive, light cure, resin-modified MTA cement

for direct and indirect pulp capping

- >> For direct and indirect pulp capping in the treatment of deciduous and adult teeth
- >> Calcium release and a high pH value (pH 11) promote the formation of hydroxyapatite as well as tertiary dentine
- >> Creates an environment hostile to bacteria
- >> Moisture tolerant
- >> Virtually no solubility
- >> Good Radiopacity
- >> Fast, after light cure treatment can be continued immediately
- >> Thixotropic properties



1 g



Direct pulp capping

1: opened pulp
2: Harvard BioCal®-CAP
3: composite filling
4: tertiary dentine

**Before** 

Significant release of bioactive calcium promotes the formation of hydroxyapatite and tertiary dentine.



# Harvard MTA-CAP

#### Flowable fast setting MTA cement in capsules

- >> Particularly suitable for pulp capping
- >> Calcium release and a high pH value (pH 12) promote the formation of of hydroxyapatite and tertiary dentine
- >> Flowable consistency
- >> Extra fast setting
- >> Mixing time: 30 sec
- >> Working time: 2:00 min (from start of mixing at 23 °C (73 °F))
- >> Next treatment step: 3:00 min

Set also in humid conditions





# Harvard CalciumHydroxide

Calcium hydroxide paste

- >> Suitable for direct and indirect pulp capping
- >> Paste with perfect consistency
- >> Good price / performance ratio





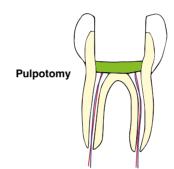


# Harvard MTA-PT

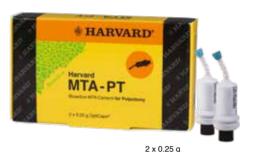
Fast cure, reinforced radiopaque MTA cement in capsules

- >> Particularly suitable for pulpotomy
- Calcium release and a high pH value (pH 12) promote the formation of hydroxyapatite as well as tertiary dentine
- >> Flowable consistency
- >> Particularly radiopaque
- >> Fast setting
- >> Mixing time: 30 sec
- >> Processing time: 2:00 min (from start of mixing at 23 °C (73 °F))
- >> Next treatment step: 3:00 min

Set also in humid conditions



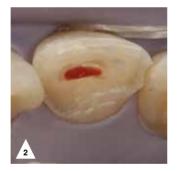


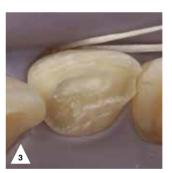


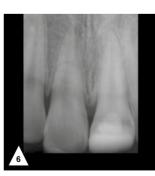


Clinical case with Harvard MTA-PT (MTA XR Flow Fast) Source: Thonemann/Federlin, University Regensburg, Germany









"Product solutions that are increasingly adapted to the individual situation in terms of technology and material consistency make work in endodontics much easier."





- 1: Initial situation: Anterior tooth trauma, complicated crown fracture 21 2: Partial Pulpectomy 3: Application of Harvard MTA-PT
- 4: Covering with glass ionomer cement 5: 4 months after trauma: 21 vital 6: 1 year after trauma: 21 vital

### **HARVARD**

# **ENDODONTICS**

You want perfectly coordinated products for your Endo Treatment? Our reliable and easy-to-use materials will help you to provide a patient-oriented and successful treatment and thus ensure long-lasting success. Harvard has the perfectly matched product for every indication.

Then take a look here:

- >> Root Canal MTA Universal
- >> Root Canal MTA Specialities
- >> Root Canal-Preparation & -Dressing
- >> Root Canal Sealer



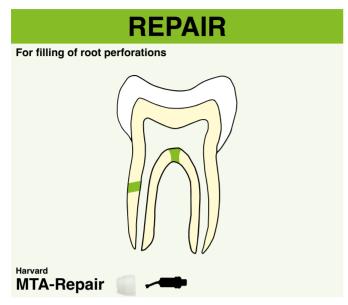


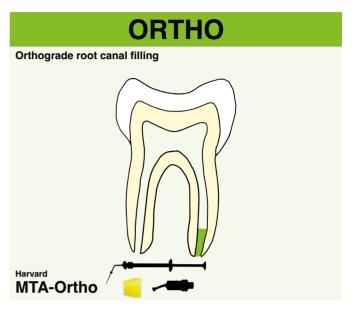
## Discover ...

- $\dots$  all Harvard products for the endotontic treatment.
- >> Repair an MTA cement in the capsule; designed for the closure of root perforations. (Harvard MTA-Repair)
- >> Ortho for direct and simple closure of the apex with a particularly thin-bodied and long-setting MTA cement in the capsule.

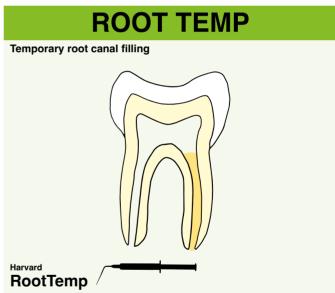
  The enclosed EndoDirect syringe has a very flexible application cannula, so that even in the case of strongly curved root canals can be applied at full working length. (Harvard MTA-Ortho)
- >> Retro MTA materials for retrograde root canal filling in capsule. (Harvard MTA-Retro)
- >> Root Seal for definitive root canal sealing in combination with a master point in the automix syringe, direct application syringe ready to use or in the capsule. (Harvard MTA-DirectSeal; Harvard MTA-RootSeal; Harvard BioCal®-RootSeal)

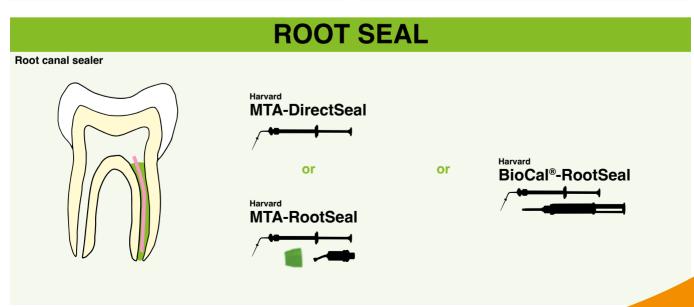
The Harvard MTA Universal cements for mixing or in the capsule are suitable for most endodontic indications. Harvard MTA cements and BioCal® materials are also very well suited for the treatment of children.



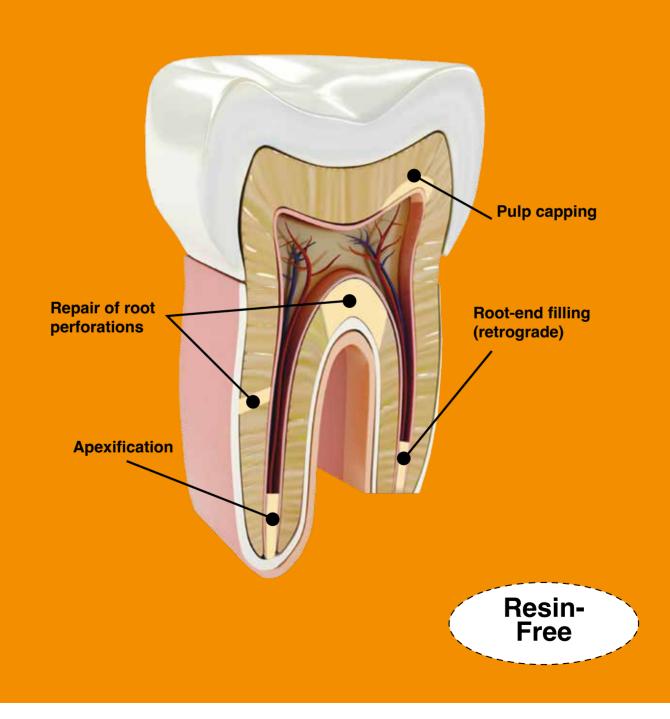








## (Mineral-Trioxide-Aggregat)



# Root Canal MTA Universal Endodontics

# MTA Universal OptiCaps®

Endodontic repair cement in capsules based on MTA

- >> Highly biocompatible material
- >> Excellent bond to dentine
- >> Radiopaque
- >>> Firm and homogenous consistency directly from the capsule
- >> Promotes tertiary dentine formation
- >> Setting not affected by humidity
- Suitable for pulp capping, sealing root perforations, root end fillings (retrograde)
- >> Mixing time: 30 sec
- >> Working time: 2:00 min (from start of mixing at 23 °C (73 °F))
- >> Next clinical step: 5:00 min

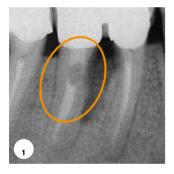
Set also in humid conditions

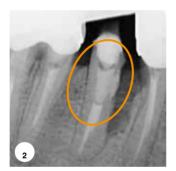






Dentist Dr. Oxana Hilfer







"Due to MTA, good long term prognosis."

1: Initial situation: Damaged root canal wall and demineralized bone 2: After treatment: Root canal perforation sealed with Harvard MTA Universal 3: After one year: Perfect seal of the application areas, new remineralized bone and better retention of the tooth



Order Details	
1 g powder, 3 ml liquid, dosage spoon, mixing pad, spatula	7081507
2 g powder, 4 ml liquid, dosage spoon, mixing pad, spatula	7081508



1 g / 3 ml 2 g / 4 ml



## **Root Canal MTA Specialities**

**Endodontics** 



# Harvard MTA-Repair

Extra radiopaque MTA cement in capsules

- >> Specially recommended for filling of root perforations
- >> Firm consistency
- >> Extra radiopaque
- >> Mixing time: 30 sec
- >> Working time: 2:00 min (from start of mixing at 23 °C (73 °F))
- >> Next clinical step: 5:00 min

Set also in humid conditions

Order Details	
2 OptiCaps® ea. 0.25 g, ea. packed in aluminum pouch	7081505
Harvard Applier OptiCaps®	7092000



# MTA-Ortho plus EndoDirect

Flowable MTA cement in capsules with extended working time

- >> Particularly suitable for direct and easy closure of the apex
- >> Flowable consistency
- >> Extra long working time (4:00 min)
- >> Mixing time: 30 sec
- >> Working time: 4:00 min (from start of mixing at 23 °C (73 °F))
- >> Next treatment step: after only 10:00 min

Set also in humid conditions

#### Easy to use:

- 1. Mix the MTA capsule
- 2. Fill the endo syringe with the material directly from the capsule
- 3. Thanks to the flexible endo tip and the endo-stop, controlled MTA application up to the apex of the root canal





## For the perfect application of **MTA-Ortho** into the root canal a special EndoDirect syringe is available.



Bended needle tip with individual working length



Filling of the Harvard EndoDirect syringe



Bring piston into the Harvard EndoDirect syringe



Application of Harvard MTA-Ortho into the root canal



## **Root Canal MTA Specialities**

**Endodontics** 

# Harvard MTA-Retro

Fast setting, extra radiopaque MTA cement in capsules

- >> Specially recommended for root end filling (retrograde)
- >> Firm consistency
- >> Extra radiopaque
- >> Fast setting
- >> Mixing time: 30 sec
- >> Working time: 2:00 min (from start of mixing at 23 °C (73 °F))
- >> Next clinical step: 3:00 min

Set also in humid conditions









Harvard MTA-Retro Fast setting, extra radiopaque MTA cement in capsules





Dentist Dr. med. Klaus Herrligkoffer









# "Harvard has the perfect material for this treatment."

#### Infected tooth 25

"Pain swollen on the upper left second premolar 25. From the diagnostic X-ray, a radiolucency around the tip of the root, clinical examination reveals movement of the tooth and an old root canal with post and core plus crown."

- 1: First clinical image
- 2: First X-ray before treatment
- 3: X-ray after placement of Harvard MTA-Retro
- 4: X-rax after 12 months



## Harvard Glide & Clean

Order Details

2 ml syringe, 6 flexible tips 7081560

Harvard Glide & Clean is a carbamide peroxide and EDTA containing gel in syringes for the effective and facilitated cleaning of the root canal

- >>> Facilitated removal of pulp tissue, dentine chips and debris
- >> Removal of the smear layer
- >> Chemical preparation
- >>> Lubricant for rotary instruments for root canal preparation, reduction of the risk of fracture



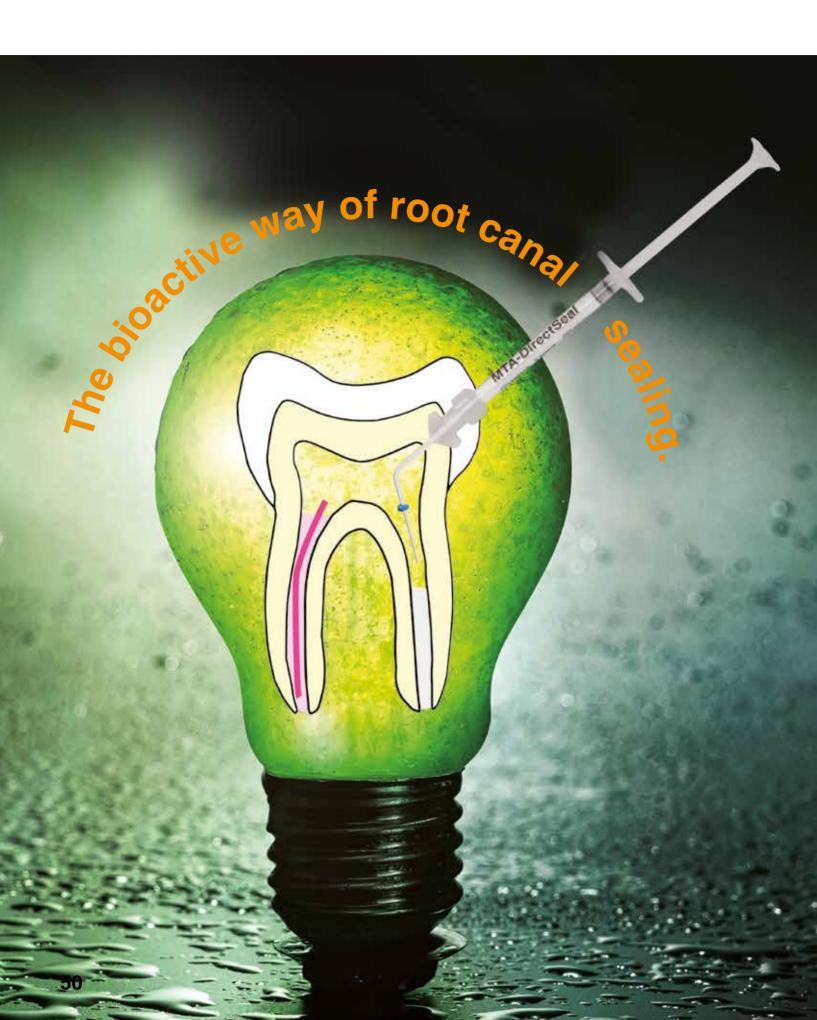
# RootTemp

Harvard RootTemp is calcium hydroxide for temporary root canal dressing



- >> Bacteria hostile environment (pH 12)
- >> Mineralizing
- Good radiopacity
- >> Easy application directly into the root canal
- >> Flexible, curved EndoTip





# The 3 Bioactive Root Canal Sealers.

>> Harvard MTA-DirectSeal

Ready-to-use, bioactive, MTA root canal sealer

>> Harvard MTA-RootSeal

Bioactive MTA root canal sealer in capsules

>> Harvard BioCal®-RootSeal

Bioactive, resin-modified MTA root canal sealer



### Harvard **MTA-DirectSeal**

Ready-to-use, bioactive MTA root canal sealer

Harvard MTA-DirectSeal is a bioactive MTA root canal sealer that can be applied directly from the syringe into the root canal in combination with gutta-percha points. The root canals are sealed without any marginal gap. MTA-DirectSeal is particularly favourable in use with a Mastercone. The high pH value of 12 shows hostile effect against bacteria. The material hardens by absorbing moisture from the tooth.

## The performance features of Harvard MTA-DirectSeal at a glance: No mixing necessary – ready to use

- >> Easy application from the syringe with flexible EndoTip and silicone stopper
- >> High pH value of 12 has an anti-bacterial effect
- >> Working time approx. 1 hour
- >> Material is mineralising
- >> Gap-free sealing between root canal and gutta-percha
- >> Highly radiopaque
- >> Resin-free
- >> Strong calcium release

#### Indication:

>> Root canal sealing

#### Technical data:

- >> Working time: approx. 60 minutes
- >> Setting time: approx. 4 5 hours
- >> X-ray visibility: 350% Al
- >> Strong calcium release









MTA-DirectSeal

# Root Canal Sealers Endodontics



Dr. med. dent. Maximilian Donges









"The patient presented at the practice with an insufficient root canal filling with apical radiolucency at tooth 22. The tooth was asymptomatic and was found to be insufficiently preserved during a routine check-up. In addition to the carious lesions at the margins of the fillings, an osteolysis was visible in the apical area.

- 1: The image shows insufficient fillings and an apical radiolucency with a diameter of 6 mm
- 2: A revision of the root canal filling with nickel-titanium files was performed, visible in the image as a master point image with gutta-percha
- 3: The root filling was performed with gutta-percha and Harvard MTA-RootSeal as a sealer
- 4: A significant improvement in the apical situation is visible just six months after the repeat root filling with gutta-percha and MTA

Conclusion: The handling and user-friendly application of the MTA-Sealer make the workflow much easier. In addition, the tissue-friendly material can be expected to produce predictably good results."





PD Dr. Johannes Ebert

## "Investigation of microleakage of bioactive root canal sealers."

"University Erlangen, Germany. Kopecka M, Opperskalski L, Zorzin J, Petschelt A, Lohbauer U, Ebert J

The aim of this study was to measure microleakage of this new sealer at two different time points (one week and 6 months) and to compare them with two well-established sealer materials.

Additionally, the amount of material pressed beyond the apex (overfilling) was measured.

Excerpt from the study Erlangen, Germany 2022

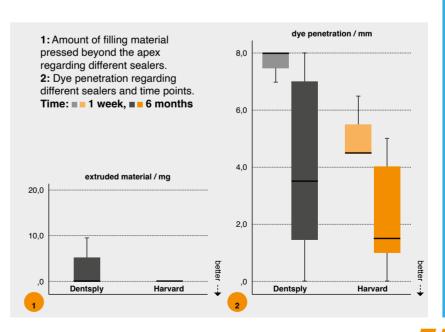
#### Conclusion

The new materials under investigation showed less leakage and slightly less material overfilling than the well-established material AH Plus that was used for comparison.

Thus, regarding the parameters tested, the new material Harvard MTA-RootSeal can be recommended for clinical use."

#### Uniklinikum Erlangen





## MTA-RootSeal

Bioactive MTA root canal sealer in capsules

- >> Excellent seal
- >> Apatite formation through reaction of released calcium and hydroxide with endogenous phosphate
- >> Mineralizing
- >> Bacteria-hostile environment (pH 12)
- >> Self cure
- >> Easily removable with Mastercone/Guttapercha
- >> Radiopaque
- >> OptiCaps® capsule for consistent consistency and convenient mixing
- >> Optional with EndoDirect syringe: direct application into the root canal
- >> Mixing time: 30 sec
- >> Working time: > 10:00 min (from start of mixing at 23 °C (73 °F))
- >> Next clinical step: after 60:00 min

Set also in humid conditions











Dr. Amir Ibrik D.D.S, N.D.B, E.R.B, MSc

#### "Harvard MTA-RootSeal for me the first choice."

Harvard MTA-RootSeal is a pure MTA, easy to use, hydrophilic, has a very good consistency and offers a very good adaptation and sealing of the root canal wall. Further advantages are: a high pH value (antibacterial effect) biocompatibility, fast setting time, no postoperative pain and easy revisability.





#### Optional: The EndoDirect Syringe for perfect application.



Flexible endo-tip with individual working length



Filling the EndoDirect syringe

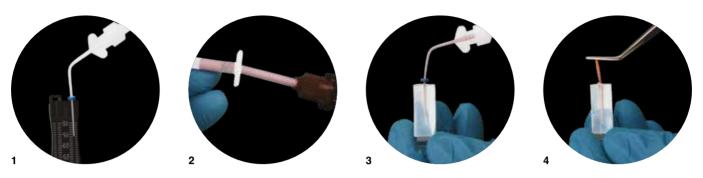


Insertion of the plunger into the EndoDirect syringe



Application of the material into the root canal

#### **Application with the EndoDirect syringe:**



- 1: Set of the working length with the endo stop

  2: Transfer the required amount of Harvard BioCal®-RootSeal into the EndoDirect syringe 3: Injection of Harvard BioCal®-RootSeal into the root canal 4: Insertion of gutta-percha up to the working length into the root canal





PD Dr. Johannes Ebert

#### "Investigation of microleakage of bioactive root canal sealers."

#### "University Erlangen, Germany. Kopecka M, Opperskalski L, Zorzin J, Petschelt A, Lohbauer U, Ebert J

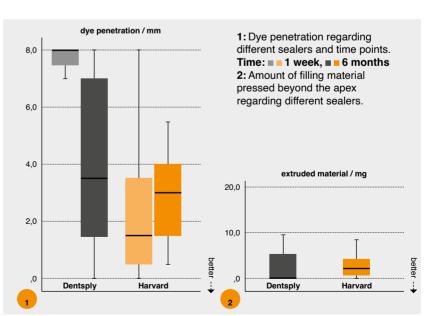
The aim of this study was to measure microleakage of this new sealer at two different time points (one week and 6 months) and to compare them with two well-established sealer materials. Additionally, the amount of material pressed beyond the apex (overfilling) was measured.

#### Conclusion

The new materials under investigation showed less leakage and slightly less material overfilling than the well-established material AH Plus that was used for comparison. Thus, regarding the parameters tested, the new material Harvard BioCal®-RootSeal can be recommended for clinical use."

#### Uniklinikum **Erlangen**





## Harvard BioCal®-RootSeal

#### Bioactive, resin-modified MTA root canal sealer

- >> Excellent seal
- >> Apatite formation through reaction of released calcium and hydroxide with endogenous phosphate
- >> Mineralizing
- >> Environment hostile to bacteria (pH 11)
- >> Self cure and additional light cure for faster setting of the surface
- >> Easy to remove and revise, e.g. for subsequent post placement with fiber posts
- >> Convenient application from the minimix syringe
- >> Radiopaque
- >> Optional: for optimal, bubble-free, direct application into the root canal also available with **EndoDirect syringes** (Harvard BioCal®-RootSeal plus EndoDirect)

Order Details	
4 g minimix syringe, 10 EndoDirect syringes with flexible endo-tip 10 mixing tips (S-Brown)	7081552
4 g minimix syringe, 10 mixing tips (5 x S-Brown, 5 x O-Brown) 5 intra tips long, mixing pad	7081553
Harvard Mini 4:1 / 10:1 S-Brown Refill bag with 50 mixing tips	7093050
Harvard Mini 4:1 / 10:1 O-Brown Refill bag with 50 mixing tips	7091100
Harvard IntraTips long Refill bag with 50 intra tips	7083620





Dentist Dr. Nihad Hababat

#### "Best results with Harvard BioCal®-RootSeal."

"I recommend **Harvard BioCal®-RootSeal** to every dental professional because it is easy to use, safe and cost-effective, no matter what technique is used. Since we started working with **Harvard BioCal®-RootSeal**, we no longer have to fear possible negative consequences of exceeding the material through the apex (foramen apicale)."









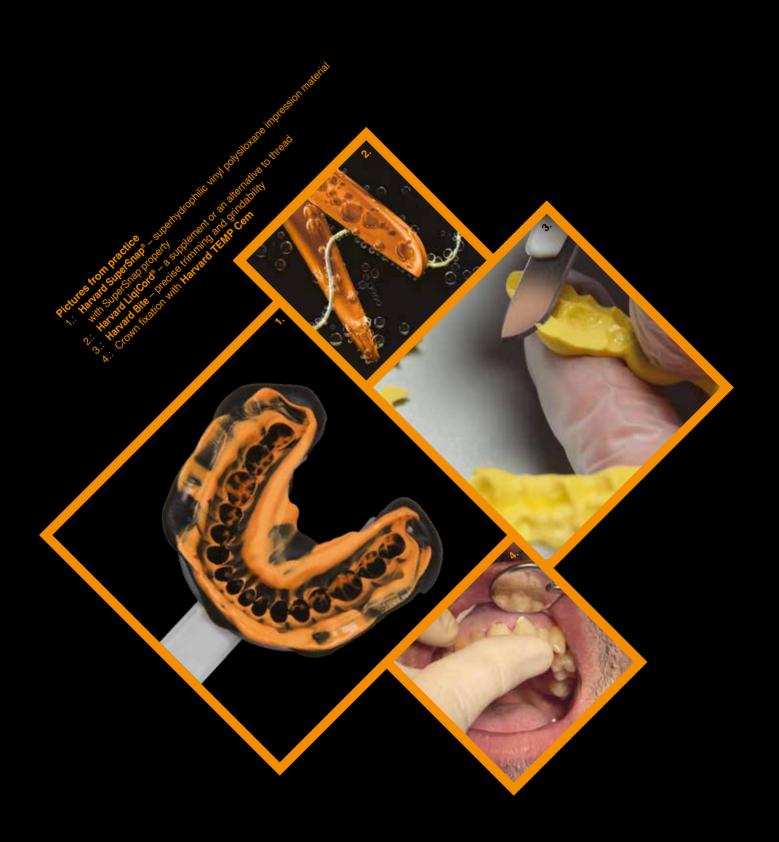
1: Chronic periapical abscess tooth 14
a: Before: The patient came in with an abscess with fistula formation in the upper right premolar region (tooth 14). X-ray with inserted gutta-percha point in the fistula tract b: After: X-ray of the final obturation with Thermafil® and Harvard BioCal®-RootSeal
2: Deep filling near the pulp, tooth 47
a: Before: The patient came in with severe and constant pain in the right lower molar (tooth 47 / diagnostic pulpitis).
X-ray: Tooth 47 – deep filling near the pulp b: After: X-ray of the final obturation with Thermafil® and Harvard BioCal®-RootSeal

### **HARVARD**

# **PROSTHETICS**

Harvard offers a wide range of products for dental prosthetics. Discover the right products for a range of applications over the next few pages.

- >> Impression Materials
- >> Retraction Material
- >> Bite Registration Material
- >> Core Build-Up & Post Cementation
- >> Temporary Crown & Bridge Materials
- >> Temporary Luting Cements
- >> Semi-Permanent Luting Composite
- >> Permanent Luting Composites
- >> Permanent Luting Cements
- >> Transparent Matrix Material

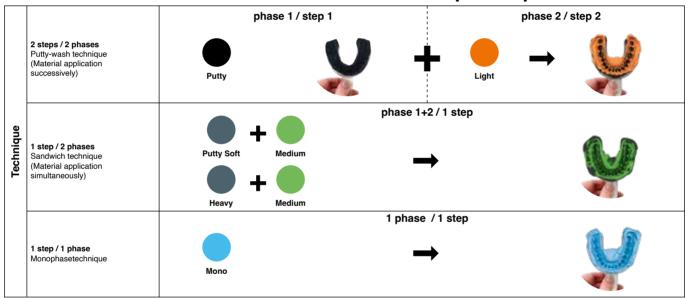




# Harvard SuperSnap®

Superhydrophilic vinyl polysiloxane impression material with SuperSnap property

#### The recommended combinations of Harvard SuperSnap®:



**\* HARVARD**\*



# Impression Materials Prosthetics

#### Harvard

## SuperSnap®

Superhydrophilic vinyl polysiloxane impression material with SuperSnap property

- Same convenient working time as Harvard PremiumSil shortened intra oral setting time
- Super hydrophilicity for perfect wettability and excellent reproduction of details
- >> Extremely user- and patient-friendly
- >> Excellent flow properties
- >> High elastic recovery, dimension stability
- >> Intensive colors for excellent legibility
- >> Available in two Snap-Set times: Regular Snap and Quick Snap
- >> Optimal kneadable consistency for the putty products
- >> Suitable for the sandwich technique and the putty-wash technique
- >> Different viscosities:
  - Putty, Putty Soft, Heavy, Mono, Medium, Light





Order Details		
Regular Snap	Color	
2 automix cartri 12 mixing tips 1:	dges ea. 50 ml, 1, 4 IntraTips yellow	
Light	orange	7083801
Medium	green	7083811
2 automix cartri	dges ea. 50 ml,12 mixing	g tips 1:1
Mono	blue	7083821
Heavy	black-grey	7083831
2 jars ea. 600 g,	2 spoons	
Putty	black	7083841
Putty Soft	black	7083851
MaxiMix cartrid	ge, 380 ml, ers, 1 bayonet ring	
Putty Soft	black	7083853
Heavy	black	7083833
Quick Snap	Color	
2 automix cartri 12 mixing tips 1:	dges ea. 50 ml, 1, 4 IntraTips yellow	
Light	orange	7083802
Medium	green	7083812
2 automix cartri	dges ea. 50 ml,12 mixing	g tips 1:1
Mono	blue	7083822
Heavy	black-grey	7083832
2 jars ea. 600 g,	2 spoons	
Putty	black	7083842
Putty Soft	black	7083852
MaxiMix cartrid	ge, 380 ml, ers, 1 bayonet ring	
Heavy	black-grey	7083834
Harvard Auto-T Refill bag with 50 Light, Medium –	) mixing tips for	7098000
Harvard Auto-T Refill bag with 50 Heavy – Regular	mixing tips for	7098010
Harvard Auto-T Refill bag with 50 Mono – Regular	1:1 O-Pink ) mixing tips for	7098020
Harvard IntraTip Refill bag with 50 Light, Medium –	os yellow ) mixing tips for	7083619
Harvard Maxi 5: Refill bag with 50	-	7091400
	ser Automix 1:1	7095100

No stock item, please contact the Harvard sales team.

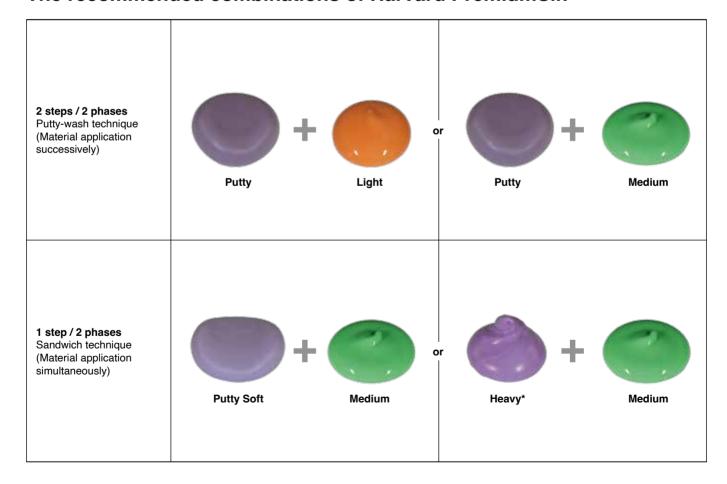




# Harvard PremiumSil

Superhydrophilic vinyl polysiloxane impression material

#### The recommended combinations of Harvard PremiumSil:



# Impression Materials Prosthetics

#### Harvard

## **PremiumSil**

Superhydrophilic vinyl polysiloxane impression material

- >> Super hydrophilicity for perfect wettability and excellent reproduction of details
- >> Long working time, short intra oral setting time
- >> Excellent flow properties
- >> Optimal kneadable consistency for the putty products
- >> Very low shrinkage
- >> Suitable for the sandwich technique and the putty-wash technique
- >> Two setting times
- >> Durable storage of impression
- >> Different viscosities: Putty, Putty Soft, Heavy, Medium, Light



Auto 1:1 O-Yellow

Auto 1:1 O-Pink

Order Details		
Normal Set	Color	
2 automix cartri		
	I, 4 IntraTips yellow	
Light	orange	7083701
Medium		7083711
4 automix cartri	dges ea. 50 ml	
Light	orange	7083703
2 automix cartri	dges ea. 50 ml, 12 mixin	g tips 1:1
Heavy	bright purple	7083731
2 jars ea. 600 g,	2 spoons	
Putty	dark purple	7083751
Putty Soft	purple	7083741
MaxiMix cartride		
10 dynamic mixe Putty Soft	purple	7083740
. atty oon	μαιριο	, 0007 40
Fast Set	Color	
2 automix cartri		
	I, 4 IntraTips yellow	
Light Fast	orange	7083702
Medium Fast	bright green	7083712
4 automix cartri	dges ea. 50 ml	
Light Fast	orange	7083704
	dges ea. 50 ml, 12 mixin	
Heavy Fast	bright purple	7083732
2 jars ea. 600 g,	·	
Putty Fast	dark purple	7083752
Putty Soft Fast	purple	7083742
MaxiMix cartridge, 380 ml, 10 dynamic mixers, 1 bajonet ring		
Heavy Fast	bright purple	7083733
ilouvy i uot	origin purple	, 000700
Harvard Auto 1:	1 O-Green	7096000
Refill bag with 50		
	nSil Heavy / Heavy Fast	700100-
Harvard Auto 1: Refill bag with 50		7091200
	nSil Mono / Mono Fast	
Harvard Auto 1:		7091300
Refill bag with 50		
	nSil Light / Light Fast Sil Medium / Medium Fast	
Harvard IntraTip		7083619
Refill bag with 50		
	nSil Light / Light Fast	
	Sil Medium / Medium Fast	7004 400
Harvard Maxi 5: Refill bag with 50	1 Dynamic dynamic mixers for	7091400
	Sil Putty Soft MaxiMix	
Harvard Premium	Sil Heavy Fast MaxiMix	
Harvard Dispen	ser Automix 1:1	7095100

No stock item, please contact the Harvard sales team.

# Harvard TraySive

Conventional tray adhesive for silicones

- >> Tray adhesive for all silicone impression materials
- >> Tacky bond between impression tray and A-silicone



Auto 1:1 O-Green

Order Details	
10 ml bottle	7083753

10 ml

## Harvard LiquiCord®

Retraction paste for temporary gingiva displacement

- >> For patients: less painfull
- >> For dentists: time saving, easy to use
- >> For a dry and expanded sulcus
- >> Neutral taste

Order Details	
10 x 0.7 g syringe, 20 needle tips	7083870
Harvard NeedleTips H18 white Refill bag with 50 needle tips	7083875



#### Application of Harvard LiquiCord®

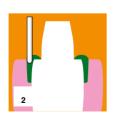
For accurate impressions the gingiva retraction is very important: after a tooth preparation the gingival sulcus normally is filled with saliva, blood or other liquids and therefore not accessible for the impression material. This requires effective retraction with Harvard LiquiCord®. It temporarily displaces the gingiva and keeps the sulcus dry and protected. In addition Harvard LiquiCord® has a hemostatic effect.

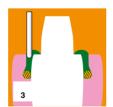
Harvard LiquiCord® can be used for all indications of temporary displacement of the marginal gingiva and to provide a dry and expanded sulcus:

- >> For digital impressions
- >> For conventional impressions

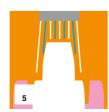
- >> Impressions for restaurations (temporary and permanent)
- >> Preparations of class II and V











- 1. Introduce the tip / needle into the sulcus, opening the sulcus
- 2. Move the top of the tip slowly and evenly around the tooth while pressing out the paste. Fill the sulcus all around with enough Harvard LiquiCord® so that an excess appears
- 3. If necessary, Harvard LiquiCord® can be used in combination with a retraction cord, that is placed before in the sulcus, to open the sulcus further
- 4. Let Harvard LiquiCord® work for at least 2 minutes and keep away all moisture during this time
- 5. After this time flush off Harvard LiquiCord® completely from the sulcus with air and water

**Order Details** 

12 mixing tips

2 x 50 ml automix cartridge,

4 x 50 ml automix cartridge,

in the shade Yellow (vanilla smell)

in the shade Yellow (vanilla smell)

7083700

7083710

7096000

7095100

## Harvard Bite

Bite registration material based on vinyl polysiloxane

- >> Precise and distortion-free
- >> Fast setting (45 sec)
- Yery low shrinkage
- >> Easy to cut, not brittle
- >> Ideal consistency
- >> Durable storage of bite registrate
- >> Vanilla smell
- >> Neutral taste



2 x 50 ml

# Experience the difference.



Kay Zischow, Managing director Zischow Dental Hamburg GmbH

#### "Harvard Bite has convinced me with its positive properties."

"The advantages of Harvard Bite for CMD registrations are that the material becomes very firm after curing, is very thin-flowing and the bite can thus be ideally fixed in a locked position. I would recommend this material to all dentists and colleagues at any time."







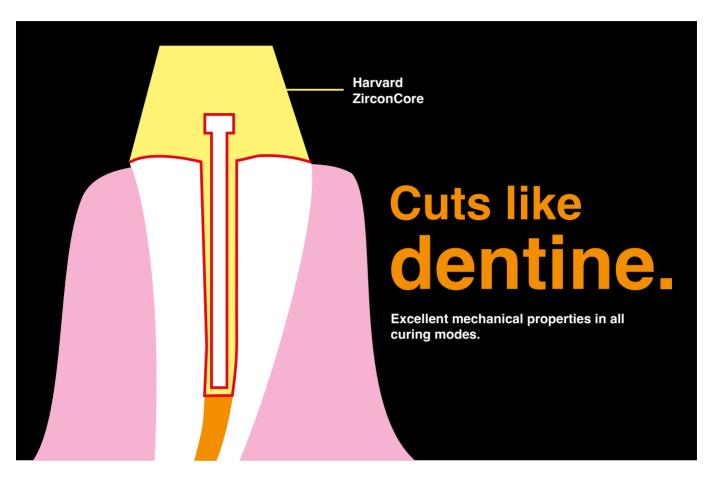




- 1: Intraoral application of **Harvard Bite**: optimal consistency
- 2: Only 45 seconds cure
- 3: Excellent reproduction of the bite situation
- 4: Bite registration
- 5: Precise trimming and grindability

## **Core Build-Up & Post Cementation**

**Prosthetics** 





Dr. Pawel Paszkiewicz

- 1: Prepared and bonded root canal
- 2: Application into the root canal
- 3: Placing the root post
- 4: Cured core build-up
- 5: Finished core build-up











"Due to the dual indication – post-cementation and core buildup – the work becomes easier, faster and more efficient."



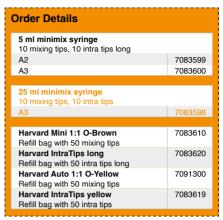
# Core Build-Up & Post Cementation Prosthetics

#### Harvard

## **ZirconCore**

Dual cure core build-up and post cementation composite

- >> Optimal consistency for two indications: Core build-up and post cementing
- >> "Cuts like dentine"
- >> Very good mechanical properties for durable restorations
- >> Contains substantial amount of nano zirconia particles
- >> Fluoride release
- >> Very good radiopacity
- >> Thixotropic properties
- >>> For optimal results: To be used with Harvard Bond SE Dual



No stock item, please contact the Harvard sales team.



#### Harvard

## **Bond SE Dual**

Dual cure self-etch bonding

- >> Etching, priming and bonding after mixing in one step
- >> Only one layer necessary
- >>> Strong and long-lasting adhesion to enamel and dentine
- >> Hydrophilic for wet bonding technique
- >>> For use with dual cure composites e.g. **Harvard ZirconCore**
- >> Good price / performance ratio





## **Temporary Crown & Bridge Materials**

**Prosthetics** 

#### Harvard

## TEMP C&B Ultra

**Semi-permanent** crown and bridge material, ratio 10:1

- >> Highgloss polishability
- >>> Perfect shine even without polishing, no additional gloss varnish necessary
- >> Natural esthetics and fluorescence
- >> Reduced smear layer
- >> Very low polymerization temperature
- >> Very high mechanical strength & excellent elasticity
- >> High color stabi

Order Details	
50 ml automix cartridge 10:1, 10 mixing	tips
A2	7081662
A3	7081663
Harvard Auto 4:1 / 10:1 S-Blue Refill bag with 50 mixing tips	7094000
Harvard Dispenser Automix 4:1 / 10:1	7095000





# Gloss? Just wipe!

Simply wipe the smear layer off – DONE!
Very good lasting high gloss.
Perfect semi-permanent esthetic results.
Resilient.

# Temporary Crown & Bridge Materials Prosthetics

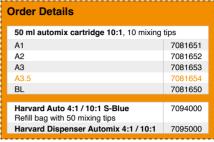
## TEMP C&B

Temporary crown and bridge material, ratio 10:1

- >> Reliable and easy to use
- >> Final processing after 5:00 min
- Very good fracture resistance and hardness specially for veneers and longer bridge spans
- >> Low polymerization temperature
- >> Natural esthetics and fluorescence
- >> High color stability







No stock item, please contact the Harvard sales team.



#### Harvard TEMP Glaze LC

Gloss varnish for temporary crowns and bridges

- Highly esthetic and shiny surface without polishing
- Ideal for crowns and bridges in the visible area

Order Details	
30 ml bottle	7081730

#### Harvard

## **TEMP C&B Pro**

Temporary crown and bridge material, ratio 4:1

- >> Reliable and easy to use
- >> Good fracture resistance and hardness
- >> Natural esthetics and fluorescence
- >> Color stability
- >> Good price / performance ratio

Order Details	
50 ml automix cartridge 4:1, 10 mixing tips A1	7081641
<b>50 ml automix cartridge 4:1</b> , 10 mixing tips A2	7081642
<b>50 ml automix cartridge 4:1</b> , 10 mixing tips A3	7081643
Harvard Auto 4:1 / 10:1 S-Blue	7094000
Refill bag with 50 mixing tips	7094000
Harvard Dispenser Automix 4:1 / 10:1	7095000

No stock item, please contact the Harvard sales team.



## **Temporary Luting Cements**

TEMP Cem

5 ml

**Prosthetics** 

#### Harvard

## **TEMP Cem**

Eugenol-free temporary luting cement in a minimix syringe

>> Optimal adhesion

>> Easy removal of the temporary

- >> No residual cement on the core
- >> Contains zinc oxide
- >> Excellent flow
- >> Eugenol-free
- >> Easy removal of excess material



**Order Details** 

5 ml minimix syringe, 10 mixing tips

Harvard Mini 1:1 S-Brown

10 ml minimix syringe, 20 mixing tips

7081100

7081200

7091050



Dentist Dr. Oxana Hilfer

#### "Harvard TEMP Cem saves precious working time and keeps patients happy."

"Harvard TEMP Cem is a temporary cement of the latest generation. The minimix syringe saves valuable working time and is easy to use. Depending on the application, the cement can hold the restoration reliably for several days to several months. Excess can be easily removed and cleaned without leaving any residue. I save valuable working time and my patients are very satisfied."

- 1: Preparation
- 2: Crown fixation with Harvard TEMP Cem
- 3: Removal of excess material
- 4: Temporary











#### Harvard

## TEMP Cem EasyDose®

Eugenol-free temporary luting cement in a dosing syringe

- >> Handmix more economic
- >> Optimal adhesion
- >> Easy removal of the temporary
- >> No residual cement on the core
- >> Contains zinc oxide
- Excellent flow behavior
- >> Eugenol-free
- >> Easy removal of excess







10 ml

# Temporary Luting Cements Prosthetics

#### Harvard

## **TEMP Cem Esthetic**

Translucent zinc oxide cement for temporary luting

- >> Translucent and esthetic material
- >> Easy removal of excess material
- >> Easy removal of the restoration
- >> No residual cement on the core
- >> Eugenol-free

Order Details	
5 ml minimix syringe, 10 mixing tips	7081104
Harvard Mini 1:1 S-Brown Refill bag with 50 mixing tips	7091050



## Semi-permanent Luting Cement Prosthetics

#### Harvard

## Implant Semi-permanent

Dual cure composite cement for semi-permanent cementation of implant based crowns and bridges

- >> Safe fixation, easy removal, easy re-cementation
- >> Elastic polymer film to minimize chewing pressure on the bone
- >> Excellent sealing, no shrinkage
- >> Easy removal of the crown
- >> Easy removal of excess material
- >> Contains zinc oxide







Dentist Dr. Oxana Hilfer

#### "The safe, semi-permanent cementation."

"Harvard Implant Semi-permanent allows by the self-mixing minimix syringe an exact dosage of needed amount of cement. Excess material can be removed effortless and completely after a short light curing with LED light. Even bigger restorations can be easily removed at any time. Long and cumbersome trimming after removing is avoided."

## **Permanent Luting Composites**

**Prosthetics** 

# Harvard LuteCem SE

Self-adhesive dual cure resin-modified luting cement

- >> Suitable for:
  - 1. Luting of posts made of fiber-reinforced materials, metal and ceramics
  - 2. Luting of crowns and bridges made of ceramics, zirconia, composites and metal
- >> Dual cure
- >> Fluoride release
- >> High color stability



Order Details	
5 ml minimix syringe, 10 mixing tips Harvard Mini 4:1 / 10:1 S-B 5 mixing tips Harvard Mini 4:1 / 10:1 O-Bro 5 intra tips long	
Translucent	7081101
A2	7081105
White opaque	7081107
Harvard Mini 4:1 / 10:1 S-Brown Refill bag with 50 mixing tips	7093050
Harvard Mini 4:1 / 10:1 O-Brown Refill bag with 50 mixing tips	7091100
Harvard IntraTips long Refill bag with 50 intra tips	7083620

No stock item, please contact the Harvard sales team.

2 x 1 ml syringe, incl. 8 needle tips H18 7100020

7095158

#### Harvard

## **VeneerCem**

Shade-adaptive, light cure composite cement for the cementation of translucent veneers

- >> Shade-adaptive for a good adaption to the existing restoration
- >> Precise application
- >> Easy excess removal
- >> Permanent result
- >> Very high polishability
- >> Natural fluorescence
- >> No try-in paste required (time saving)
- >> High color stability



**Order Details** 

Harvard NeedleTips H18

Refill bag with 50 needle tips



Dr. Amir Ibrik D.D.S, N.D.B, E.R.B, MSc

#### "Simple logistics – no more headache!"

A very nice and convenient veneer cement. What is different in this cement to others? Harvard Veneer Cem is adapting the shade between veneer and tooth automatically. Thanks to Harvard with its hyper-nanotechnology spherical fillers we cemented different shade porcelain veneers with only one shade.





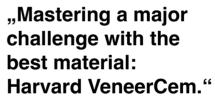




Dr. Mohammed Saggal











### Clinical case tooth 12 and 22



"A patient came to me complaining about the appearance of his smile due to a gap in his upper incisors. I decided to fabricate ceramic veneers made of highly translucent lithium disilicate that had the same color and layering as his natural teeth.





The biggest challenge was to match these veneers perfectly to the neighboring teeth."

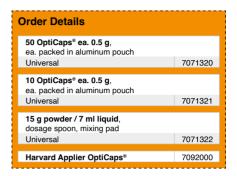


# Permanent Luting Cements Prosthetics

### POWERmer Cem

High strength, self adhesive, dual cure composite-hybrid for Luting of crowns and bridges, inlays, onlays and veneers

- >> Stress-bearing
- >> Good adhesion to tooth, zirconia and metal
- >> No shrinkage
- >> No adhesive necessary!
- >> Fluoride release
- >> Acid neutralisation ability
- >> Insoluble
- >> Translucent
- >> Color stable
- >> In strength, esthetics and polish: LIKE A LUTING COMPOSITE CEMENT!
- >> Radiopaque
- >> HandMix or OptiCaps®





**Harvard POWERmer Cem** is an **translucent esthetic** composite-hybrid luting cement with high fluoride release. In addition, the material can be light-cured on the edge of the crown or bridge to enable quick primary fixing.

The high compressive strength, good adhesion and an acid neutralisation ability ensure long-lasting results. **Harvard POWERmer Cem** has no shrinkage and is self-adhesive, to tooth, zirconia and metal.

### **Permanent Luting Cements**

**Prosthetics** 

# Harvard BioPOWER Cem

Bioactive, dual cure MTA-modified composite-hybrid for luting of crowns and bridges

- >> High pH 12
- >> Calcium release
- >> Fluoride release
- >> Bioactive
- >> Dual cure
- >> No shrinkage
- >> No adhesive necessary!
- >> Good adhesion to tooth, zirconia and metal
- >> Strong
- >> Opaque
- >> Radiopaque
- >> HandMix or OptiCaps®





**Harvard BioPOWER Cem** is an composite-hybrid cement with calcium and fluoride release. In addition, the material can be light-cured on the edge of the crown or bridge to enable quick primary fixing.

The high compressive strength and a bacteriophobic environment, thanks to a high pH value of 12, ensure long-lasting results. **Harvard BioPOWER Cem** has no shrinkage and is self-adhesive, to tooth, zirconia and metal.

# Permanent Luting Cements Prosthetics

# Harvard BioPhosphate Cem

Bioactive, self cure MTA zinc phosphate cement for luting of crowns and bridges

- >> High pH 12
- >> Calcium release
- >> Bioactive
- >> Self cure
- >> No shrinkage
- >> Self-adhesive
- >> Good adhesion to tooth, zirconia and metal
- >> No adhesive necessary!
- >> Very low solubility
- >> Strong
- >> Opaque
- >> Radiopaque
- >> HandMix



 $\textbf{Harvard BioPhosphate Cem} \ \text{is an opaque luting cement based on MTA zinc phosphate cement with calcium release}.$ 

The reaction of MTA and phosphoric acid is mostly described to lead to calcium phosphate compounds e.g. apatite.

The high compressive strength and a bacteriophobic environment, thanks to a high pH value of 12, ensure long-lasting results. **Harvard BioPhosphate Cem** has no shrinkage and is self-adhesive, to tooth, zirconia and metal.

2.5 ml



### **Harvard**

### IonoResin Cem Extra (LC)

Esthetic light and self cure resin-reinforced glass ionomer cement for luting of crowns and bridges, inlays, onlays and as a liner under composite fillings (with additional light curing)

Order Details	
15 g powder, Universal / 10 ml liquid dosage spoon	7061116
50 OptiCaps® ea. 0.4 g, Universal	7061251
Harvard Applier OptiCaps®	7092000

No stock item, please contact the Harvard sales team.

- >> Good esthetics
- >> Low film thickness
- >> Practically insoluble
- >> Improved mechanical properties
- >> Very low shrinkage
- Set on demand by three types of curing: self + light cure + classical cement reaction
- >> Radiopaque
- >> HandMix or OptiCaps®





### Harvard

### IonoResin Cem (LC)

Self cure resin-reinforced glass ionomer cement for luting crowns and bridges (with additional light curing)

- >> Radiopaque
- >> Moisture tolerant
- >> Easy to mix and convenient to apply
- >> Good marginal fit and seal
- >> Practically insoluble
- In clinical situations close to the pulp use Harvard BioCal®-Line (see also page 24)
- >> HandMix
- >> Good price / performance ratio



No stock item, please contact the Harvard sales team.



# Permanent Luting Cements Prosthetics

## IonoGlas Cem Extra

Classical self cure glass ionomer cement for luting of crowns and bridges, metal based inlays, onlays and as a liner under composite fillings

Order Details	
15 g powder, Universal / 10 ml liquid dosage spoon	7042115
50 OptiCaps <sup>®</sup> ea. 0.4 g – Universal	7042250
Harvard Applier OptiCaps®	7092000

No stock item, please contact the Harvard sales team.

- >> Good esthetics
- >> Radiopaque
- >> Low solubility
- >> Good adhesion to enamel and dentine
- >> High fluoride release
- >> Biocompatible
- >>> HandMix or OptiCaps®





# Harvard IonoGlas Cem

Classical self cure conventional glass ionomer cement for luting of crowns and bridges

- >> Good adhesion to dentine and enamel
- >> Fluoride release, biocompatible and radiopaque
- >> Easy to mix and to use
- >> Good marginal fit and seal
- >> HandMix
- >> Good price / performance ratio

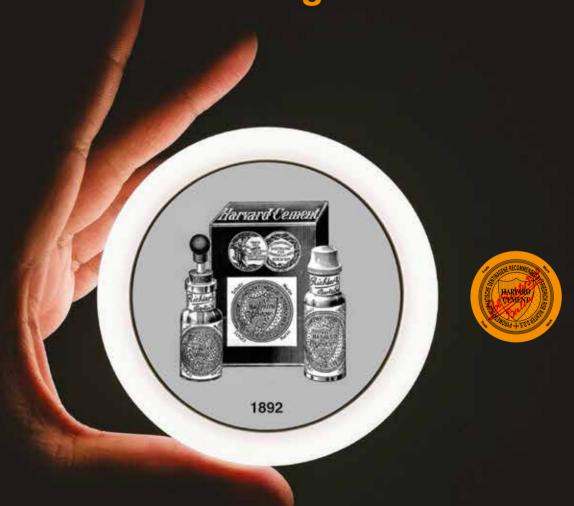


No stock item, please contact the Harvard sales team.



# Harvard Cement

The Original. Since 1892.



The cement. Timeless and contemporary.

Harvard Cement stands
for a long and successful history.
In addition, Harvard the cement inventor has
developed into a dental
specialist in almost all areas.
See for yourself ...

# Harvard Cement

Zinc phosphate cement for permanent luting of restorations and for lining. **The classic – well-proven since 1892.** 

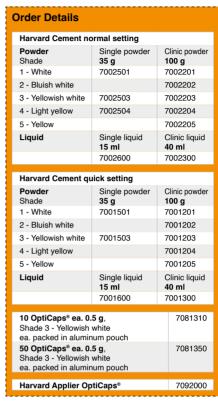
- >> High compressive strength and low film thickness
- >> Good biocompatibility
- >> Easy and safe application
- >>> Unmatched price / performance ratio for luting and lining materials
- >> Applicable for:
  - >> Zircon oxide
  - >> Silicate ceramic
  - >> Aluminium oxide
  - >> Gold and non precious-metals
- >> Cement according to DIN EN ISO 9917-1
- >> Available in two setting times: normal and fast setting
- >> Well-proven since 1892

(Mixing advice see page 86)

Also available in OptiCaps®

- >> For permanent luting of crowns and bridges
- >> Quantity for 1 to 2 crowns
- >> Mixing time: 10 sec
- >> Working time: 1:30 min from start of mixing







# Harvard Polycarboxylat Cement

Zinc polycarboxylate cement for permanent luting and lining

- >> Non-irritant for sensitive teeth
- >> Cement according to DIN EN ISO 9917-1
- >> Easy and safe application
- >> Unmatched price / performance ratio for luting materials

(Mixing advice see page 86)



**Order Details** 

### **Transparent Matrix Material**

**Prosthetics** 

### **Harvard TransMatrix**

Transparent matrix and bite registration material based on vinyl polysiloxane

- >> Transparent to allow perfect light cure of composite through the matrix
- >> Appropriate final hardness and good detail reproduction
- >> Original shape remains unaltered
- >> Dimensionally stable over time and after disinfection
- >> Perfect consistency and thixotropy
- >> Fast setting time (1:20 min in mouth)
- >> Comfortable for the patient with neutral taste and flavor
- >> Time-saving direct application in the mouth
- >> Also usable as transparent bite registration material

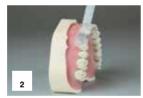






Dr. Amir Ibrik D.D.S, N.D.B, E.R.B, MSc

























### "Easy application of Harvard TransMatrix."

- 1: Initial situation
- 2: Application of Harvard TransMatrix to the surface to be prepared and adjacent teeth
- 3: Fast curing time (1:20 min intraorally)
- 4: Complete matrix
- 5: Tooth preparation
- 6: Etching of the prepared surface with **Harvard Etch**
- 7: Application of adhesive system,
- e.g. Harvard InterLock® ONE
- 8: Application of a moldable composite into the matrix, e.g. Harvard UltraFill
- 9: Correct repositioning of the filled matrix into the oral cavity
- 10: 40 sec light curing through the matrix, repeat the procedure after removing the matrix
- 11: Excess removal and polishing with suitable rotary instruments and, if necessary, finishing
- 12: Finished direct composite restoration



# Transparent Matrix Material Prosthetics

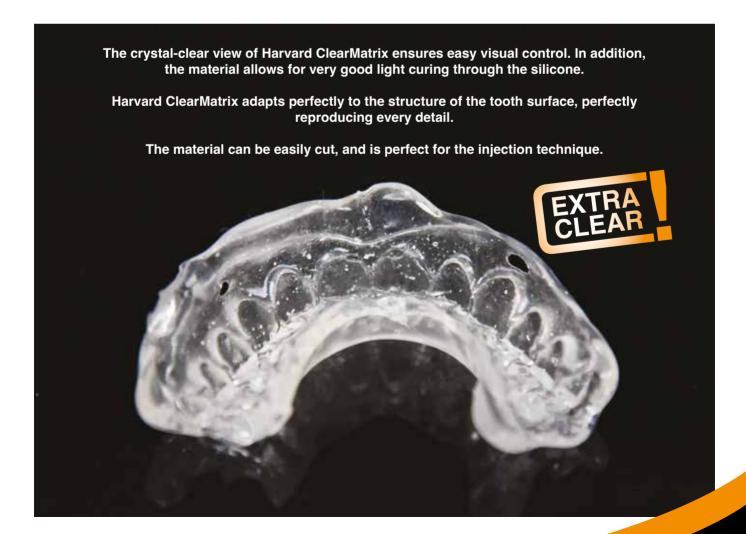
# Harvard ClearMatrix

Crystal-clear matrix material based on vinyl polysiloxane

- >> Very high transparency, allows perfect light cure of composite through the matrix
- >> Optimal flow behavior
- >> High tear resistance and stability with simultaneous flexibility
- >> Time saving for veneers created using the chariside technique
- >> Working time: 45 seconds
- >> Setting time in the mouth: approx. 2 minutes
- >> Especially suitable for:
  - >> Injection molding technique
  - >> Temporary crowns and bridges
  - >> Composite layering technique
- >> Dimensionally stable over time and after disinfection









# Accessories Miscellaneous

Harvard NeedleTips H18	7095158
with 50 needle tips for Harvard MultiChrome Flow, Harvard UltraFill Flow, Harvard PremiumFlow <sup>9</sup> , Harvard IonoSphere Bulk Flow, Harvard CalciumHydroxide LC	
Harvard NeedleTips H18 white	7083875
with 50 needle tips for Harvard LiquiCord®	
Harvard NeedleTips H20	7091226
with 50 needle tips for Harvard IonoLine, Harvard RestoreFlow	
Harvard NeedleTips H22	7095162
with 50 needle tips for Harvard BioCal®-CAP, Harvard BioCal®-Line	
Harvard NeedleTips H25	7095126
with 50 needle tips for Harvard Etch	
Harvard Microbrush®	7095156
with 50 applicators for Harvard InterLock® ONE, Harvard InterLock®, Harvard Bond SE Mono, Harvard Restore System Kit, Harvard Bond SE Dual	
Harvard Auto-T 1:1 O-Yellow	7098000
with 50 mixing tips for SuperSnap® Light, Medium, Regular / Quick	
Harvard Auto-T 1:1 O-Green	7098010
with 50 mixing tips for SuperSnap® Heavy Regular / Quick	
Harvard Auto-T 1:1 O-Pink	7098020
with 50 mixing tips for SuperSnap® Mono, Regular / Quick	
Harvard IntraTips yellow	7083619
with 50 intra tips for Harvard PremiumSil Light, SuperSnap®, Light Fast, Medium, Medium Fast, Harvard ZirconCore 25 ml	
Harvard IntraTips long	7083620
with 50 intra tips long for Harvard Core, Harvard ZirconCore, Harvard LuteCem SE, Harvard BioCal®-Cem	
Harvard Mini 1:1 O-Brown	7083610
with 50 mixing tips for Harvard Core, Harvard ZirconCore	
Harvard Mini 4:1 / 10:1 O-Brown	7091100
with 50 mixing tips for Harvard LuteCem SE, Harvard BioCal®-RootSeal, Harvard BioCal®-Cem	
Harvard Mini 4:1 / 10:1 S-Brown	7093050
with 50 mixing tips for Harvard LuteCem SE, Harvard Implant Semi-permanent, Harvard BioCal®-RootSeal plus EndoDirect, Harvard BioCal®-RootSeal, Harvard BioCal®-Cem	
Harvard Mini 1:1 S-Brown	7091050
with 50 mixing tips for Harvard TEMP Cem Esthetic, Harvard TEMP Cem	
Harvard Auto 4:1 / 10:1 S-Blue	7094000
with 50 mixing tips for Harvard TEMP C&B, Harvard TEMP C&B Pro	
Harvard Auto 1:1 O-Green	7096000
with 50 mixing tips for Harvard Bite, Harvard ClearMatrix, Harvard TransMatrix, Harvard PremiumSil Heavy / Heavy Fast	
Harvard Auto 1:1 O-Pink	7091200
with 50 mixing tips for Harvard PremiumSil Mono / Mono Fast	7001200
Harvard Auto 1:1 O-Yellow	7091300
with 50 mixing tips for Harvard PremiumSil Light / Light Fast, Harvard PremiumSil Medium / Medium Fast, Harvard ZirconCore 25 ml	7001000
Harvard Maxi 5:1 Dynamic	7091400
with 50 dynamic mixers for Harvard PremiumSil and Harvard SuperSnap®, Putty Soft MaxiMix, Heavy Fast MaxiMix	7001400
Harvard Endo Tips	7083618
with 25 endo tips for Harvard RootTemp	7000010
Harvard Applier OptiCaps®	7092000
for all OptiCaps®	, 552500
Harvard Applier OptiTips®	7095200
for all OptiTips® and ComforTips®s	, 033200
Harvard Dispenser Automix 4:1 / 10:1	7095000
for Harvard TEMP C&B, Harvard TEMP C&B Pro	7033000
Harvard Dispenser Automix 1:1	7095100
for Harvard Bite, Harvard TransMatrix,	7000100
Harvard PremiumSil and Harvard SuperSnap®, Light / Light Fast,	
Medium / Medium Fast, Heavy / Heavy Fast, Mono / Mono Fast	
Harvard Dispenser Automix 1:1 / 2:1	7095600
for Harvard ZirconCore 25 ml	













### For Harvard Cement, Harvard BioPhosphate Cem & **Harvard BioPhosphate Dentine**



Dispense powder and liquid onto a clean and dry glass plate (at approx 23 °C (73 °F)).



Divide into 4 portions as follows: 1/2, 1/4, 1/8, 1/8.



Mixing: start first 1/8 with the whole liquid quartely within 15 seconds.



Add second 1/8 and mix for 15 seconds while spreading.



Draw 1/4 into the mixture.



Mix while pressing with flat spatula in the next 30 seconds.



Quickly mix the remaining half with the previously mixed amount for a further 30 seconds to form a homogeneous mass.



Use the entire surface of the glass plate.



Ready-for-use cement mix within 90 seconds.

**Harvard Cement normal setting:** For luting consistency: powder 1.5 g, liquid 1.0 g For cavity lining consistency: powder 2.1 g, liquid 1.0 g **Harvard Cement quick setting:** For luting consistency: powder 1.8 g, liquid 1.0 g

### For Harvard Polycarboxylat Cement

For mixing of polycarboxylate cement the whole amount of powder is divided into two equal halves. One half is further divided into two equal parts (quarter).

In 30 seconds mix one half of the powder into the liquid. Then the other two quarters are mixed in for another 15 seconds each. This will result in a total mixing time of 60 seconds.

The mixing ratio (by weight) of powder to liquid is 2.9:1 (luting cement) or 3.6:1 (liner).

# Activating and mixing OptiCaps® Miscellaneous

### "Click before you mix!"

Remove capsule (OptiCaps®) from the pouch



1. OptiCaps® before activation.

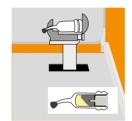


**2.** For activation of the OptiCaps® press the plunger on a hard and plain surface to the end into the OptiCaps®.



**3.** Insert the OptiCaps® into the Harvard Applier OptiCaps® and click once to standarize.

Note: The plunger must be at the same level as the bottom of the capsule.

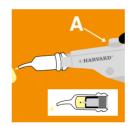


**4.** Insert the OptiCaps® into a mixer, close lid and mix immediately for the period mentioned in the instructions for use (with about 4300 oscillations / min).



**5.** Insert the OptiCaps® into the Harvard Applier OptiCaps®. Remove the pin from the nozzle. If not, capsule can burst.

Pull the lever twice (2 clicks) to prime the OptiCaps®.



**6.** Extrude the mixed material on a glass plate or apply directly. Unlock the gun (push button A) and remove the OptiCaps®.

**Only** with the Harvard Applier OptiCaps® (Order-No. 7092000) the optimal amount of mixed material is guaranteed.

For the selection of a suitable capsule mixer, our sales and marketing colleagues are gladly available to you.

### Mixing & working times of various Harvard OptiCaps® products.

Product	Mixing time	Working time*	Next cinical step	page
Harvard POWERmer Bulk	10 sec	1:00 min	n/a	28
Harvard BioPOWER Dentine	30 sec	1:30 min	n/a	30
Harvard IonoGlas Fill Extra	10 sec	1:30 min	n/a	34
Harvard IonoResin Fill Extra	10 sec	1:30 min	n/a	35
Harvard MTA-CAP	30 sec	2:00 min	3:00 min	38
Harvard MTA-PT	30 sec	2:00 min	3:00 min	39
Harvard Universal	30 sec	2:00 min	5:00 min	45
Harvard MTA-Repair	30 sec	2:00 min	5:00 min	47
Harvard MTA-Ortho	30 sec	4:00 min	10:00 min	47
Harvard MTA-Retro	30 sec	2:00 min	3:00 min	48
Harvard MTA-Root-Seal	30 sec	>10:00 min	60:00 min	55
Harvard POWERmer Cem	10 sec	2:00 min	n/a	75
Harvard BioPOWER Cem	30 sec	2:00 min	n/a	76
Harvard IonoResin Cem Extra	10 sec	2:00 min	n/a	78
Harvard IonoGlas Cem Extra	10 sec	1:30 min	n/a	79
Harvard Cement	10 sec	1:30 min	n/a	81

<sup>\*</sup> from the start of mixing at 23 °C (73 °F)

# Much more than than tolk expect.

Harvard Distributions Partner.