(EN) **ENA CEM**

Ena Cem is a dual curing radiopaque fluorescent luting composite, in dentine colour (UD2), for cementation of posts, ceramic and composite inlay, onlay veneers and crowns. It follows the standard ISO 4049.

Composition
Glass powder, Diurethane dimethacrylate, Tetramethylene dimethacrylate, Silicon dioxide, Prepolymer, Dibenzoyl peroxide
Filler content: 63% (by weight) inorganic filler (0.005-4 μm)

Indications. Ena Cem is used for:
- Cementation of Post
- Cementation of Ceramic laminated veneers, inlays, onlays, jacket crowns, crowns and bridges, made of ceramic or metal
- Cementation of Composite veneers, inlays, onlays, crowns and bridges

Contraindications
Uncured resin could cause skin allergy: User should use gloves. In case of known allergy to some of the components do not use it.

Side effects
In deep cavities we suggest to use a liner in order to avoid pulpal reactions.

Materials to be avoided
Materials containing phenolics (like eugenol) and self etching primers could inhibit composite curing. Avoid the use of these materials as liners. This also applies to self-etching primers, which could prevent a proper curing of the cement. Therefore, the use of such primers should be foregone. We recommend the use of Ena Bond + Ena Bond Catalyst.

DIRECTIONS FOR USE

1. Post cementation

A. Complete the endodontic therapy, and prepare the tooth for the restoration by evaluating if a post is necessary, based on residual quantity of intact tooth. The loss of one or both interproximal walls in anteriors, of one or both mesial or distal walls in posteriors, suggest you to use a post, in order to better stabilize the restoration.
B. Make a radiograph to determine the appropriate diameter and depth of post space preparation. The post diameter should be slightly lower than the endodontic preparation. The post should be placed at same radicular depth as the height of dentinal body (for composite aesthetic restoration) or of post and core. We recommend the use of rubber dam.
C. Remove gutta-percha to pre-planned depth with a Gates-Glidden drill, Peeso reamer and/or hot instrument. Radiographic verification is recommended.
D. Select the post drill diameter (like Ena Post) which corresponds to the last Gates-Glidden drill to begin preparing the post space.
Use Drills with a slow-speed contra-angle with water spray in order to avoid tissues overheating. The drill must be kept in continuous clockwise rotation until it has been completely removed from the tooth. This will minimize the risk of the drill seizing in the post space. Remove any tooth debris from canal by irrigating post space with water spray. Sequentially step up to the next larger post drill until the pre-planned diameter and depth are achieved.
E. Select the post (like Ena Post) that corresponds to the last drill used to prepare the post space and insert post into post space to verify if it fits correctly. For a better fitting shorten the post as necessary from either the apical or occlusal end (as clinical judgement dictates) with a Diamond separating disc, wetting the post with water to avoid fibers overheating.
F. Remove the post and gently clean it with an alcohol wipe and apply on the surface a mixture of Ena Bond with Ena Bond Catalyst (one drop + one drop). A silane (e.g. Ena Etch silane) can also be used to increase the cement adhesion to the post.
G. Etch the cavity (coronal and radicular preparation) with Ena Etch 37% phosphoric acid for 2 minutes. For ideal adhesion, before etching, a microblasting on cavity surfaces is recommended in order to clean and eliminate endodontic material debris.
H. Wash accurately the canal with a water syringe to completely remove the acid. Suck water and dry the canal with paper point; do not dry with air in order to maintain the dentine wet.
I. Apply an applicable Bonder, like a mixture of Ena Bond and Ena Bond Catalyst in the cavity and in the canal. The adhesive should be wiped on the surface with a disposable microbrush or with a paper point.
Attention: Ensure that microbrush handle reaches into the depths of the canal and that the Bonder is evenly rubbed in everywhere. Microbrush should not touch the surface or possibly get jammed. Dry with air to eliminate water and solvent residuals. Insert the post to check the canal and better push the adhesive in dentine tubules.
J. Apply a disposable automixing tip on the syringe and press Ena Cem dual composite cement out of the syringe: the two components will be automatically mixed. Always discard from the syringe the first ca. 0,5 g of material. Place the cement directly into the canal filling it from the bottom of the cavity to the surface using a disposable endodontic applicator (Ena Cem orange tip); do not use any lentulo or rotating instrument. Apply some cement on the post surface and insert slowly the post to full depth, allowing excess cement to vent. Find the right position and, maintaining the post in position, wipe away any excess of cement. See use and storage!
K. Light cure for 60 seconds and proceed to the restoration. Use a Micro-Hybrid aesthetic composite (as Enamel plus HRi), for aesthetic direct restoration, or Ena Cem for post and core.
Attention: intraoral self curing will be completed after approx. 3-4 min. Ena Cem working time (intraoral at 37°C) is approx. 2 min.

2. Composite crowns & bridges, veneer, inlay and onlay luting

A. Remove the temporary appliance and clean the cavity.
B. Apply the rubber dam. Sandblast the surface of the preparation and clean it with alcohol.
C. Etch the tooth surface with e.g. Ena Etch 37% phosphoric acid for 1 minute.
D. Apply on the preparation the mixture of Ena Bond and Ena Bond Catalyst according to the instruction manual Ena Bond Ena Etch. The adhesive should be wiped on the surface with a disposable microbrush. Dry with air to eliminate water and solvent residuals.
E. Sandblast the internal part of the composite appliance and clean it with alcohol; apply e.g. Ena Bond without curing it but dry it carefully.
F. Apply a small amount of Ena Cem in the internal side of the appliance to be luted, position it on the tooth and condense it mechanically or manually. Remove composite excess and light-cure for 60 seconds from each side of the tooth.
Attention: intraoral self curing will be completed after approx. 3-4 min. Ena Cem working time (intraoral at 37°C) is approx. 2 min.
G. Check the occlusion, finish and polish (we suggest Enamel plus Shiny system).

3. Ceramic & Metal crowns & bridges, veneer, inlay and onlay luting

A. Remove the temporary appliance and clean the cavity.

B. Apply the rubber dam. Sandblast the surface of the preparation and clean it with alcohol.
C. Etch the tooth surface with e.g. Ena Etch 37% phosphoric acid for 1 minute.
D. Apply on the preparation the mixture of e.g. Ena Bond and Ena Bond Catalyst according to the instruction manual Ena Bond Ena Etch. The adhesive should be wiped on the surface with a disposable microbrush. Dry with air to eliminate water and solvent residuals.
E. Always condition the contact surfaces of the restoration according to the manufacturer's instructions. In case of ceramic we suggest to etch the inner part for 60 sec. of the application with 9,6% hydrofluoric acid (Ena Etch), wash it perfectly and then apply a silane (Ena Etch). On metal can be used a special metal primer system like Ena Tender Bond in combination with Tender Paste Opaque.
F. Apply a small amount of Ena Cem in the internal side of the appliance to be luted, position it on the tooth and condense it mechanically or manually. Remove composite excess and cure for 60 seconds from each side of the tooth.
Attention: intraoral self curing will be completed after approx. 3-4 min. Ena Cem working time (intraoral at 37°C) is approx. 2 min.
G. Check the occlusion, finish and polish (we suggest Enamel plus Shiny system).

Curing information

	Ambient temperature ca. 21°C (ca. 69°F)	Intraoral 37°C (ca. 98.6°F)
Working time	3 - 4 min.	ca. 2 min.
Curing time incl. working time	ca. 7 - 9 min.	ca. 3 - 4 min.

Light polymerization

Light intensity	Optical wavelength range	Exposure time per surface
> 500 mW/cm^2	350 - 500 nm	60 sec.

Note: After excessive material has been removed, please polymerize all edges again for 20 sec.

For light curing it's necessary to use a light-curing unit with a spectrum of 350 - 500 nm. The required physical results can be reached only if using multi walls reflecting unit. For this reason we suggest a periodical check of the light intensity following the manufacturer's instructions.
Material can also self cure without light. Intraoral self curing will be completed after approx. 3-4 min. Ena Cem working time (intraoral at 37°C) is approx. 2 min.

USE AND STORAGE
Store the product between 2°C and 10°C (between 36°F and 50°F) in a refrigerator. Use the material at room temperature. Do not use the product after the expiration date (see label on syringe). Due to hygienic reasons application tips should be used only once. Medical device, for dental use only: keep away from children. After use, leave the mixing tip on the syringe, to keep it closed, and replace it with a new one right before next use. Avoid direct sunlight exposure.

Hazard statement
Contains tetramethylene dimethyacrylate, dibenzoyl peroxide, diphenyl (2, 4, 6-trimethylbenzoyl) hydrogen phosphide oxide. May cause an allergic skin reaction.
Precautionary statements
Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

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