

Dual-Cure Flowable Core Build-up and Post Cementing Composite with Nano-technology
Instructions for Use

Made in Germany

#### SYNCA

337 Marion, Le Gardeur, QC, Canada, J5Z 4W8

## PRODUCT DESCRIPTION

**Biolight® CORE DC** is a dual cure high radiopaque flowable microhybrid composite material with nano particles (nanozirconium dioxide, nano-calciumfluoride) for core-build-up and cementation of posts. Due to its excellent mechanical properties final crown preparation can be carried out more precise. Biolight® CORE DC is also suitable for cementing of crowns and bridges, inlays and onlays.

# For all indications the use of a dual-cure bonding agent is required before application of the composite.

Biolight<sup>®</sup> CORE DC is based on poly- and difunctional methacrylates and inorganic filler particles of 0.02-10 µm. The total filler content is 64% by weight and 48% by volume. Delivered in auto-mixing 1:1 MINIMIX-syringes it can be easily dispensed and applied directly. Biolight<sup>®</sup> CORE DC exhibits a short setting time without high heat generation. The dual cure properties enables the dentist, also to carry out cementations and core build ups in cases where a light cure cannot be guaranteed to be sufficient.

Biolight<sup>®</sup> CORE DC meets the requirements of DIN EN ISO 4049, type 2, class 3.

#### INDICATIONS

- Core build-ups
- Cementing of posts

# CONTRA-INDICATIONS

The placement of Biolight<sup>®</sup> CORE DC is contraindicated if a dry working area or the recommended application technique are not possible. Also do not use Biolight<sup>®</sup> CORE DC if the patient is known to be allergic to any of the ingredients.

# SIDE EFFECTS

In singular cases, Biolight<sup>®</sup> CORE DC may cause a sensitizing reaction in patients with a hypersensitivity to any of the ingredients. In these cases, the material should not be used.

Irritations resulting from direct contact with the pulp cannot be ruled out. Therefore for pulp protection areas close to the pulp should be covered with a thin layer of calciumhydroxide material.

# INCOMPATIBILITY WITH OTHER MATERIALS

Do not use in combination with substances containing eugenol because eugenol inhibits the polymerization of the composite. Neither store the composite material in proximity of eugenol containing products, nor let the composite allow coming into contact with materials containing eugenol.

## PREPARING THE MINIMIX-SYRINGE

Remove the cap of the MINIMIX-syringe and throw it away (do not use it again!). It is replaced by a supplied 1:1 mixing cannula. Turn the cannula 90° until it locks in position. The material is now ready for application.

**NOTE:** Store used syringe with fixed used mixing cannula. Discard the first 2-3 mm of the extruded material. This has to be done for each new mix. Store used syringe with fixed used mixing cannula in the dark.

The working time (23°C (74°F)) of Biolight<sup>®</sup> CORE DC in the self cure mode is 1:30 minutes from start of mixing.

# **1. POST CEMENTATION**

#### 1.1. Isolation

Use of a rubber dam to isolate the tooth is strongly recommended.

#### 1.2. Root Canal Preparation

Refer to directions of the selected post manufacturer.

Before starting the preparation clean the tooth from residues. Prepare and clean the root canal with e.g. sodium hypochlorite solution, rinse and remove excess solution from the canal with a soft paper tip.

Apply a dual-cure bonding agent according to the corresponding manufacturer instructions.

#### 1.3. Post Cementation

Prepare the selected post according to manufacturer instructions.

Biolight® CORE DC is applied into the prepared root canal

and onto the post. Seat the post careful into the canal and maintain firm pressure until the post is seated. Biolight<sup>®</sup> CORE DC self-cures within **3:30 minutes**. For post stabilization light cure the coronal part of the cemented post for **20 seconds** with a polymerization unit (wavelength range 400-500 nm) with a light intensity of at least 1000mW/cm<sup>2</sup>.

As soon as the  ${\rm Biolight}^{\circledast}$  CORE DC has set proceed with the core build-up procedure.

#### 2. CORE BUILD-UP 2.1 Isolation

Use of a rubber dam to isolate the tooth is strongly recommended.

## 2.2. Cavity Preparation

Remove all existing old restorations and decay from the tooth. If necessary place any pins or posts. Refer to instructions for use of the selected post manufacturer.

## 2.3. Pulp Protection

For pulp protection areas close to the pulp should be covered with a thin layer of calcium hydroxide material.

#### 2.4. Application of a Bonding Agent

Apply a dual-cure bonding agent according to the corresponding manufacturer instructions.

NOTE: It is essential that the primed dentine and enamel surfaces are dry and contaminant free for the application of Biolight<sup>®</sup> CORE DC.

#### 2.5. Application of Biolight<sup>®</sup> CORE DC

Place the mixing cannula directly into the preparation and press out the paste.

Biolight<sup>®</sup> CORE DC is automatically mixed when dispensed with slight and even pressure. Filling should occur from bottom upwards to prevent air voids. To facilitate placement of Biolight<sup>®</sup> CORE DC place a matrix band around the prepared tooth.

Biolight<sup>®</sup> CORE DC may be contoured by using a composite instrument. A flat-ended interproximal carver is recommended.

Place Biolight® CORE DC directly into the preparation and

allow the system to self cure for **3:30 minutes**. After that the material should be light-cured (**40 seconds**) with a polymerization unit (wavelength range 400-500 nm) with a light intensity of at least 1000mW/cm<sup>2</sup>. With this technique an optimum of physical properties will be obtained.

An explorer can be used to test that  ${\rm Biolight}^{\circledast}$  CORE DC has completely set. Remove the matrix not earlier than the material has set.

Final core preparation on Biolight<sup>®</sup> CORE DC can be carried out by using crown preparation burs.

# Additional Notes:

- Do not use any resin to adjust viscosity of composite restorative material.
- Contact of resin pastes with skin and gingival tissue should be avoided, especially by anyone having known resin allergies.

#### STORAGE

- Do not store above 20°C (68°F). Store unopened material in the refrigerator.
- Opened cartridges have to be used up within 3 months.
- Do not use after expiry date.

#### WARRANTY - LIMITED LIABILITY

SYNCA warrants this product will be free from defects in material and manufacture. SYNCA makes no other warranties including any implied warranty of merchantability or fitness for a particular purpose. User is responsible for determining the suitability of the product for user's application. If this product is defective within the warranty period, your exclusively remedy and SYNCA's sole obligation shall be repair or replacement of the SYNCA product.

Except where prohibited by law, SYNCA will not be liable for any loss or damage arising from this product, whether direct, indirect, special, incidental or consequential, regardless of the theory asserted, including warranty, contract, negligence or strict liability.

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

