

Dual Cure Core Build-up Composite Resin

1. General Information

NANOFIL® Dual Cure Core Build-up Composite Resin is a dual-cured, radiopaque, composite-based material for core build-ups. It is also indicated for the cementation of root canal posts and indirect restorations.

2. Specifications

8g automix syringe

Accessories: 5 spiral automix tips and 5 intraoral root canal tips

3. Composition

BisGMA, UDMA, BisEMA, Barium glass, Silica

4. Indications for Use

- Permanent cementation of all types of root canal posts.
- Core build-ups for restorations with insufficient coronal structure.
- Permanent cementation of indirect restorations (crowns, bridges, inlays, onlays) made of ceramic, metal, or composite materials.

5. Contraindication

Do not use in patients with known hypersensitivity to any component of acrylic resins.

6. Adverse Reactions

In rare cases, this product or its components may cause hypersensitivity reactions.

7. Interactions

Phenolic compounds (e.g., eugenol-containing products) may inhibit the polymerization process and should be avoided.

8. Precautions

This product contains components that may cause allergic reactions upon contact with skin or eyes.

- To minimize the risk of an allergic response, the use of protective equipment, such as gloves and safety goggles, and a no-touch technique is recommended.
- In the event of skin contact, wash the affected area immediately with soap and water and re-glove.
- In the event of eye contact or an allergic reaction, seek immediate medical attention.

9. Directions for Use

A: Post Cementation

1. Post System and Root Canal Preparation: Select an appropriate post system and prepare the root canal according to the manufacturer's instructions.
2. Adhesive System Application: Apply a dual-cure compatible bonding agent to the post and the prepared root canal space, following the adhesive manufacturer's instructions. NANOFIL Dental Bonding Agent is recommended.
3. Cartridge Preparation: Remove the syringe cap and express a small amount of material onto a mixing pad by slowly depressing the plunger until equal amounts of base and catalyst are extruded. This ensures optimal mixing. Attach a new automix tip and install an intraoral root canal tip.
4. Resin Delivery: Dispense NANOFIL® Dual Cure Core Build-up Composite Resin directly from the automix syringe into the prepared root canal using an intraoral root canal tip. Coat the surface of the root canal post completely with the mixed material before insertion.

- Note: Do not use the initial mixed material extruded onto the mixing pad, and immediately proceed with placement to avoid exceeding the working time.

5. Core Build-up: The coronal core can be built up immediately after post cementation. The material can be light-cured for 30 seconds to accelerate polymerization.

B: Core Build-up and Cementation of Indirect Restorations

1. Preparation and Cavity: Clean and etch the prepared tooth structure and/or cavity surface using NANOFIL® Etchant Gel for 30 seconds. Rinse thoroughly and dry, but do not desiccate the dentin.

2. Adhesive System Application: Apply a dual-cure compatible bonding agent to the prepared cavity surface. NANOFIL Dental Bonding Agent is recommended.

3. Cartridge Preparation: Remove the syringe cap and express a small amount of material onto a mixing pad by slowly depressing the plunger until equal amounts of base and catalyst are extruded. This ensures optimal mixing. Attach a new automix tip.

4. Resin Delivery: Dispense NANOFIL® Dual Cure Core Build-up Composite Resin directly into the prepared cavity using the automix tip. Build up the core or cement the indirect restoration and seat it to full position.

- Note: Immediately proceed with placement after mixing to avoid exceeding the working time.

5. Curing: The material can be light-cured for 30 seconds to accelerate polymerization. Excess material can be removed after light-curing.

10. Clinical Operating Time Guide

Working time (including mixing time)* (at 23°C)	≈2min
Chemical curing(at 37°C)	≈4 min
Light-curing	30 seconds

*The specified time is valid at a room temperature of 23°C and a normal relative humidity of 50 %. Higher temperatures shorten, lower temperatures lengthen this time.

11. Storage Conditions

1. NANOFIL® Dual Cure Core Build-up Composite Resin should be stored between 2–25 °C (36–77 °F).
2. Protect the material from direct sunlight or other heat sources.
3. Keep the container tightly sealed when not in use to prevent air and moisture exposure.

12. Expiration Date and Lot Number

Refer to the information on the syringe and packaging.

13. Shelf Life

3 years.



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