

Light-cured Universal Composite

Dental Filling Resin

Instructions for Use



General Information

NANOFIL Nova® Light-cured Universal Composite is a light-cured, micro-hybrid, highly filled (81.5% by weight), radiopaque universal composite. It is suitable for both direct and indirect restorations in anterior and posterior teeth. It exhibits excellent visibility under radiographic imaging, with radiopacity equivalent to an aluminum sheet of Light-cured Universal Composite millimeters in thickness. The material offers two distinct handling consistencies—one softer and one firmer—both non-sticky to instruments, thereby meeting the diverse clinical needs of dentists. The softer variant of NANOFIL Light-cured Universal Composite is highly polishable, delivering exceptional aesthetic results for anterior restorations. Light-cured Universal Composite demonstrates excellent light-curing properties; across all shades, the depth of cure is no less than 2.6 mm, thereby saving time during incremental filling procedures.

Indications for Use

- Direct Restorations (Anterior and Posterior, including Occlusal Surfaces)
- Post and Core Buildup
- Splinting
- Indirect Restorations (Inlays, Onlays, Veneers)

Model and Specification

Model: HA1, HA2, HA3, HA3.5, HB1, HBW, SA1, SA2, SB1, SBW
Loading capacity: 4g per syringe

Intended Users Dental Professionals

Precautions

- Avoid direct contact with uncured material (uncured resin may cause skin irritation in sensitive individuals). Avoid contact with skin. In the event of accidental skin contact, rinse thoroughly with soap and water.
- Both patients and dental personnel should wear protective eyewear.
- When using the dental adhesive, contamination by saliva will severely compromise the bonding efficacy to dentin.
- Recommended curing light intensity: $\geq 500 \text{ mW/cm}^2$; wavelength range: 400–500 nm.
- Please refer to the labels on individual components for specific expiration dates.
- Instructions for Use are available upon request.
- Instructions for Use are also available at www.atmbio.com.

Helpful Hints

- Although the restoration may appear smooth and polished immediately after being placed and light-cured, an oxygen-inhibited layer is present and must be removed (finishing with discs and/or polishing paste, etc.) to prevent staining.

INSTRUCTIONS FOR USE

Direct Restorations

1. Before isolating the tooth, use a shade guide to select the appropriate composite shade. (Tooth shade matching should be performed by comparing the tooth to the section of the shade guide that most closely matches the anticipated thickness of the restoration.)
2. Clean the tooth with pumice powder and water to remove surface debris.
3. Isolate the tooth from moisture and prepare the tooth structure.
4. Pulp Protection: If the preparation approaches the pulp or involves a pulp exposure—and if direct pulp capping is indicated—apply a small amount of NANOFIL Nova® Pulp-Cap Liner or Calcium Hydroxide over the exposed area. For detailed information, please refer to the instructions accompanying the NANOFIL Nova® Pulp-Capping Liner or similar products.
5. If necessary, place a matrix band. (Note: It is generally preferable to place the matrix band *after* etching the enamel and applying the bonding agent.) Subsequently, apply the bonding agent using your selected bonding technique, following the manufacturer's instructions.
6. Rotate the syringe handle clockwise to dispense the required amount of composite resin onto a light-blocking mixing pad. (Tip: To prevent excessive material extrusion, immediately rotate the handle counterclockwise once the desired amount of composite resin has been dispensed.) If using a single-dose tip, inject the material directly into the prepared cavity.

7. This product should be cured using a halogen or LED light source with a minimum light intensity of 500 mW/cm^2 and a wavelength range of 400–500 nm. During light-curing polymerization, position the light tip as close as possible to the restorative material layer. Fill the cavity in increments of 1–2 mm, light-curing each layer individually; the curing time is 20s or adjust as needed. Continue filling layer by layer until the cavity preparation is filled to the level of the Cavo surface margin. Avoid exposure to strong ambient light within the working area.
8. Use diamond burs, finishing burs, or finishing stones to contour the restoration.
9. Occlusal Adjustment: Check the occlusion using a thin articulating paper. Verify contacts during both centric and lateral movements. Use fine-grit diamond burs or finishing stones to remove excess restorative material and carefully adjust the occlusion.
10. Subsequently, use finishing strips or polishing discs to finish and polish the restoration. (After completing the finishing and polishing steps, apply a surface sealant in accordance with the manufacturer's instructions. Alternatively, if using a liquid polishing agent, apply it according to its manufacturer's instructions. This procedure helps enhance marginal integrity and reduces wear and discoloration.)

Indirect Restorations (Inlays, Onlays, and Veneers)

1. Select the appropriate composite shade.
2. Perform tooth preparation.
3. Create a model of the prepared tooth (this can be obtained via traditional impressions or digital scanning); if necessary, apply a separating agent to the model to create space for the bonding agent.
 - a. If dentin replacement is required, fill in increments of 1–2 mm. Light-cure each increment layer for 20s using a curing light.
 - b. If enamel replacement is required, fill in increments of 1–2 mm. Prior to the final light-curing step, the anatomical contours of the restoration may be sculpted at this stage. Light-cure each increment layer for 20s using a curing light.
4. Check the restoration for overhangs, undercuts, and proper fit. Make adjustments as needed.
5. Bond and cement the indirect restoration in place, following the instructions provided by the manufacturer of the selected bonding agent.
6. Finish and polish the restoration.

HYGIENE: Please immediately recap the syringe after dispensing the required amount of composite resin. It is recommended to use a commercially available protective sleeve to prevent contamination of the syringe during treatment.

DISPOSAL: Refer to community provisions relating to waste. In their absence, refer to national or regional provisions relating to waste.

WARRANTY: AT&M Biomaterials Co., Ltd. recognizes its responsibility to replace products if proven to be defective. AT&M Biomaterials Co., Ltd. does not accept liability for any damages or loss, either direct or consequential, stemming from the use of or inability to use the products as described. Before using, it is the responsibility of the user to determine the suitability of the product for its intended use. The user assumes all risk and liability in connection therewith.

The recommended condition of storage: Store in the cool, dry place at room temperature ($17^\circ\text{C} - 25^\circ\text{C}$). Avoid direct sunlight and contact with products containing eugenol. Tightly close the cap immediately after use. If the product is stored in a refrigerator, allow it to reach room temperature before use.

Production date: see the product package.

Expiration Date: see the product package.

Labeling Instructions

Instructions for use	Warning	Product model	Manufacturing lot	Production date	Expiry date	Avoid direct sunlight

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