

	NANOHYBRID COMPOSITE DENTAL FILLING	Document Number	KK.05
		RELEASE DATE	15.01.2018
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	USER MANUAL	Revision Number	05

LIGHT CURED RADIOPAQUE RESTORATIVE NANOHYBRID UNIVERSAL COMPOSITE DENTAL FILLING

1. PRODUCT INFORMATION

Universal nano hybrid composite is a filling material that offers high aesthetics, durability and ease of use. Thanks to the combination of micro and nano-sized particles in a hybrid structure, both mechanical properties and aesthetic appearance are optimized. In dentistry, it is suitable for aesthetic restorations on the anterior teeth and functional and durable restorations on the posterior teeth.

2. CONTENT

- **Resin Matrix:** Bis-GMA, UDMA, TEGDMA based composite resins
- **Inorganic Fillers:** Nano silica- (0.3-3 µm), quartz.
- **Filler Ratio:** 80% by weight, 64% by volume
- Photo launcher: Camphorquinone (CQ)
- Pigments

3. FEATURES & BENEFITS

- **High Aesthetics:** Light transmittance compatible with natural tooth structure.
- **Mechanical Strength:** Resistance to chewing forces.
- **Easy Formability:** Non-adhesion to tools, fluid and ideal viscosity for modeling.
- **Color Options:** Natural look with various color tones.
- **Long-Term Stability:** Abrasion resistance.
- **Low Polymerization Shrinkage:** Less marginal leakage and long-term stability of tooth-filling fit.

4. INDICATIONS

- In the direct restoration of cavities I-II-III-IV and V.
- In cavities on the surface of the root.
- In the restoration of broken teeth.
- In cases of diastema.
- In direct veneer laminate restoration.
- Core construction.
- Aesthetically enhancing color and shape corrections.

5. CONTRAINDICATIONS

- In direct pulp capping cases, in areas very close to the pulp.
- In patients with sensitivity to any of the components of the product.
- Inadequate insulation and humidity control.
- In areas where proper curing cannot be achieved.

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- In patients with contact allergies to substances with methacrylate monomer or methacrylate polymer content.

6. APPLICATION INSTRUCTIONS

- Determine the desired color in daylight with the VITA scale.
- In order for the color choice to be correct, the teeth must be clean.
- Prepare the cavity for composite restorations.
- Isolate the tooth from the teeth next to it. Use transparent thin strips.
- The cavity must be clean and dry. Dry dentin surfaces to strengthen bonding.
- Apply acid and bonding according to the rules.
- Open the lid of the composite filling.
- Apply the composite filling to the cavity in a way that is not thicker than 2 mm.
- Do not remove the oxygen inhibition layer between the incremental layers of the composite to optimize the binding strength to each subsequent layer.
- Keep the beam device as close to the cavity as possible during curing.
- LED light source emitting blue light in a narrow wavelength range between 450-490 nm (1000-1200mW/cm² power), 20 sec. irradiation for each layer, or HALOGEN light source between 380-500 nm (700mW/cm² power) 40 sec. irradiation for each layer is recommended as a photo initiator.
- Model the composite in accordance with the natural tooth morphology.
- Put the finishing touches on abrasive discs or burs.
- Complete the polishing process to get a shiny surface.
- Take care to ensure that the airway is free of fat and other contaminants.
- After the application is finished, close the lid of the tube to make sure that it does not get air.
- Closing the lid of the product after each use does not change the current expiration date. The product can be used for the specified shelf life.

7. ALERTS

- If any nausea or other allergic reactions occur during practice, discontinue use immediately and seek medical attention.
- Uncured methacrylate resin can cause contact dermatitis and damage to the dental pulp. Avoid contact with skin, eyes and soft tissue. If it comes into contact, clean it thoroughly with water.
- Wear personal protective equipment such as disposable masks, gloves and goggles when working with this product.
- If swallowed, drink plenty of water, do not induce vomiting. Consult a doctor immediately.
- Do not use this product for any purpose other than the treatments outlined in the indications section in this user manual.
- This product is intended for use in dentistry only.

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- Avoid the use of eugenol, eugenol may disrupt the polymerization of the composite or cause discoloration, so zinc oxide should not be used with cement containing eugenol.
- It may cause discoloration when it comes into contact with cationic mouthwashes or chlorhexidine.
- Clean the application area before use, if it comes into contact with an area you do not want, remove it from the area before polymerization.
- Protect from visible light before use.

8. PACKAGING

- It is packaged in 2g, 4g, 500g and 1000g.
- It is available in 9 different colors as A1 – A2 – A3 – A3,5 – B1 – B2 -UD – XBW - BW.

9. STORAGE CONDITIONS

- The product should be stored in a cool, dry and dark environment.
- Store syringes between 15 and 25 degrees Celsius at a relative humidity of 30% +/-5%.
- Store dry, cool and not exposed to direct sunlight.
- The expiry date is indicated on all packaging. Do not use after the expiration date.
- Shelf life is 3 years.

10. DISPOSAL INSTRUCTION

- Dispose of the products according to local regulations.

11. SYMBOLS

	Production Date
	Producer
	Refer to the user manual
	Lot number
	Temperature display
	Attention
	CE Standard
	Protect from sunlight

 PROFESSIONAL DENTAL PRODUCTION	NANOHYBRID COMPOSITE DENTAL FILLING	Document Number	KK.05
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	Non-sterile mark
	Store in a dry place
	It is disposable
	DEHP Free
	LATEX-Free
	Expiry Date
	Relative humidity display

12. COMPANY INFORMATION

Manufacturer: FSM DENTAL MEDİKAL MAKİNA SANAYİ VE TİC.LTD.
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