

	BULK FLOW COMPOSITE DENTAL FILLING	Document Number	KK.09
		RELEASE DATE	10.01.2019
	USER MANUAL	Revision Date	20.09.2024
		Revision Number	04

LIGHT CURED RADIOPAQUE RESTORATIVE BULK FLOW COMPOSITE DENTAL FILLING

1. PRODUCT INFORMATION

Bulk Flow composite is a composite filling material with high flow properties used for restorative procedures in dentistry. It is designed for faster and more effective filling of deep cavities, especially in the posterior regions. Thanks to Bulk fill technology, it allows the material to be used up to **4 mm** in a single application layer, which eliminates the need to apply thin layers in conventional composites.

2. CONTENT

The product composition includes methacrylate resins (UDMA, TEGDMA), inorganic filling materials, glass, silica, photo initiator. (70% by weight, 56% by volume)

3. PROPERTIES

- **Flow Structure** : The material easily penetrates the micro-details of the cavities, has high adaptability and minimizes air gaps.
- **High Polymerization Depth**: Thanks to its improved light transmittance, it hardens effectively even in thick layers.
- **Low Shrinkage Stress**: Reduces the stresses that occur during hardening, thus ensuring the longevity of the restoration.
- **Aesthetic Harmony**: It has different color options that adapt to the natural tooth structure.
- **Radiopacity**: It can be clearly seen on X-ray images, which facilitates post-treatment evaluation and follow-up processes.

4. ADVANTAGES

- **Time Saving**: It reduces the number of layers as it can be polymerized up to 4 mm in a single layer.
- **Ease of Application**: Its flow structure provides comfortable use, especially in narrow or hard-to-reach cavities.
- **Reliable Performance**: Offers low polymerization shrinkage and high mechanical strength.

5. INDICATIONS

- As a base material in class I and II cavities.
- In class V restorations that are not in the aesthetic field.
- As a liner under amalgam and composite fillings.
- Together with tooth surface corrections and pit & fissure sealants.
- In the restoration of the teeth to be crowned.

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6. CONTRAINDICATIONS

- Restorations bearing large occlusal load.
- Routine under gingival applications. In subgingival restorations, the flow structure of the material can complicate control and affect marginal adaptation.
- Inadequate insulation and humidity control.
- In patients with sensitivity and allergy to any of the direct pulp capping and product ingredients.

7. 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 4 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.
- 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.
- For repeated use, make sure that the lid is closed correctly after use.

8. 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
- If swallowed, drink plenty of water, do not induce vomiting. Consult a doctor immediately.

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- Wear personal protective equipment such as disposable masks, gloves and goggles when working with this product.
- Do not use this product for any purpose other than the treatments outlined in the indications section in this user manual.
- 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.
- This product is intended for use in dentistry only.
- To avoid cross-contamination between patients, the application tips are disposable for each patient.
- Do not use damaged syringe tubes.
- Retract the plunger after application to prevent unwanted flow of the composite from the tip.
- Protect from visible light before use.

9. PACKAGING

Bulk Flow composite is offered in 2 g. syringe tubes.
It is available in 3 different colors as A1 – A2 – CLEAR.

10. 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.

 PROFESSIONAL DENTAL PRODUCTION	BULK FLOW COMPOSITE DENTAL FILLING	Document Number	KK.09
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11. SYMBOLS

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