



#SMT3081  
 GTIN: 7640178010550  
**Medi-Jupiter**  
 DENTAL LIGHT-CURED COMPOSITE MATERIAL

## INSTRUCTIONS FOR USE

### I. INTRODUCTION

**Medi Jupiter** Light curing radiopaque restorative ceramic composite with outstanding physical properties and optimized handling for direct restorations of all cavity classes as well as indirect restorations such as anterior and posterior inlays and onlays.

### II. INDICATION

1. Direct anterior and posterior restorations, Class I, II, III, IV and V cavities.
2. Indirect restorations such as inlays, onlays and laminate veneers
3. Extended fissure sealing in molar and premolars
4. Cores

5. Splitting mobile teeth
6. Adjusting the contours and shade to improve aesthetics

### III. CONTRAINDICATION

Patients with a history of hypersensitivity to methacrylate monomers

### IV. INCOMPATIBILITY

Eugenol containing devices could retard the bonding system curing process. Do not use eugenol containing devices for pulp protection or temporary sealing.

### V. PRECAUTIONS

#### 1. Safety precautions

1. Avoid use of the product for patients with a history of hypersensitivity to methacrylate monomers.
2. If any hypersensitivity occurs, such as dermatitis, discontinue use of the product and consult a physician.
3. To prevent the occurrence of hypersensitivity that may result from contact with methacrylate monomers wear gloves.
4. Avoid product from coming in contact with the skin or getting into the eye. Prior to using the product, protect the patient's from splashing material.
5. If the product comes in contact with body tissues, take the following actions:

**Contact with eye:** Immediately wash the eye with plenty of running water and consult a physician.

#### **Contact with skin:**

Immediately wipe it off with a cotton moistened with alcohol or gauze and wash with plenty of running water.

6. Use caution to prevent the patient from accidentally swallowing the product.

#### 2. Handling and manipulation precautions

1. Do not use the product in combination with the other composite resins. Mixing materials may cause an alteration in physical properties, possibly a defect, from the properties expected.
2. When light curing the product, give attention to the position of cure in this instructions for use.
3. The product polymerize under an operating light or natural light (e.g. sun light from windows). Avoid operating light or natural light, and use within 5 minutes from dispensing.
4. If a large resin surface is to be light cured, it is advisable to divide the area into several sections and light-cure each section separately.
5. Low intensity of light causes poor adhesion. It is advisable to check the dental curing light intensity using an appropriate light evaluating device at appropriate intervals.
6. The use of the product is restricted to a licensed dental professional.

#### 3. Storage precautions

- .Do not use after the expiry date. Note the expiry date on the outside of package.
- .Keep away from extreme heat or direct sunlight.
- .The product must be stored at 15-24°C when not in use.
- .The product must be stored in proper places where only dental practitioners can access it.

### VI. COMPONENTS

#### 1) Components

Medi Jupiter syringe 1\* 2ml (4.9gm)  
 Shade guide

#### 2) Ingredients Principal ingredients:

- Silanated silica filler
- Silanated barium glass filler
- Bisphenol A diglycidylmethacrylate (Bis-GMA)
- Triethyleneglycol dimethacrylate
- dl-Camphorquinone
- Co-initiator

Total inorganic filler content is approx. 40 vol%, 77 wt%. The particle size of inorganic filler is 0.40-1.50 µm

#### 1. Shades

**Medi Jupiter** is available in 14 shades

- Standard shades : A1, A2, A3, A3.5, B2, B3, C1, C2, C3
- Cervical shades : A4, B4, C4 CL
- Translucent shades : MJ, MO.

### VII. CLINICAL PROCEDURES

#### 1. Cleaning tooth structure

Make certain the cavity is efficiently cleaned to assure maximum adhesive performance.

#### 2. Moisture control

For optimal results avoid contamination of the treatment area from saliva or blood. Use of rubber dam is recommended to keep the tooth clean and dry.

#### 3. Cavity preparations

Remove any infected dentin and prepare the cavity in the usual manner.

#### 4. Shade selection

Select an appropriate shade using the shade guide.

#### 5. Pulp protection

Cover actual or near pulp exposure should be covered with a hard setting calcium hydroxide material. However, usually a cement lining or basing is not necessary. **Do not use eugenol materials for pulp protection.**

#### 6. Acid etching uncut enamel

If the resin restorative material will extend to uncut enamel, apply etching agent (e.g. **Medi Etch GEL**) to the enamel, let it stay for 10 seconds, wash with water, and then dry.

#### 7. Application of bonding agent

Tooth surface treatment and bonding should be performed according to Instructions for Use of the bonding system used (e.g. **Medi Etch Bond** or **Medi Etch Bond PLUS**).

### 8. Placement and light curing

#### 1. Dispensing

Dispense the required amount of **Medi Jupiter** onto the mixing pad. To prevent excess resin from escaping after dispensing the resin, turn the plunger anti-clockwise a half turn. Replace the syringe cap immediately to prevent premature setting of the resin. Use the resin within 5 minutes of dispensing. Extended exposure to the operating light will allow the resin to cure.

#### 2. Placement

Incremental placement and light-curing each increment is strongly recommended especially in deep cavities and in Class II cavities.

#### 3. Application of Medi Oxy

- Apply **Medi Oxy** solution and securely attach the disposable tip onto the syringe.
- Apply **Medi Oxy** solution, Cover all exposed resin. In the case of an indirect restoration or full composite direct resin restoration, be sure to cover the margins, Take care to fill all embrasures (i.e., gingival, buccal, and lingual).
- Allow light-cure the composite with a dental curing unit\* following the times in the table below

Light power	500mW/ cm2	800mW /cm2
MediJupiter	40 sec.	20 sec.

#### 4. Curing

Light-cure the resin with a dental visible light curing unit\* following the table. Hold the light tip as close to the resin as possible.

- Remove excess **Medi Oxy** solution with air/water spray.

#### Physical Properties

Compressive strength 352(±0.08) MPa  
 Elasticity modulus 12.1(±0.08) GPa  
 Fracture Toughness: 1.57 (±0.04) MPa.m<sup>1/2</sup>  
 Surface Hardness (KHN): 76.03( ± 2.24)  
 Flexural Strength: 138 (11) MPa  
 Flexural Modulus: 9.6 (0.6) GPa  
**ISO7405 and ISO4049 compliant.**

#### CAUTION

Federal (U.S.A.) law restricts this device to sale by or on the order of a licensed dentist.

#### WARRANTY

SwissMediTec GmbH. will replace any product that is proven to be defective. SwissMediTec GmbH does not accept liability for any loss or damage, direct, consequential or special, arising out of the application or use of the inability to use these products. Before using, the user shall determine the suitability of the products for the intended use and the user assumes all risk and liability whatsoever in connection therewith.



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