



DSP CHROMA

MANUFACTURED AND DISTRIBUTED BY:



DSP Industrial LTDA | CNPJ: 03.960.018/ 0001-23

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DSP Biomedical Group

INSTRUCTIONS FOR USE | english

TRADE NAME: DSP Chroma

TECHNICAL NAME: Light-Cured Composite Resin

CODE: 0.2040

Read all the information in these instructions carefully before applying for the product.

COMMERCIAL PRESENTATIONS

1 syringe with 4 g, 3 g, or 2 g

1 Instruction for use

- Enamel: EA1, EA2, EA3, EA3.5, EA4, EB1, and EB2.
- Bleached Teeth: WE and XWE
- Dentin: DA1, DA2, DA3, DA3.5, DA4, DB1, and DB2.
- Bleached Teeth: WD and XWD
- Effect: Opaque (EO), Pink Opaque (EP), Translucent Clear (EC), and Translucent Opalescent (OPL)
- Bleach: BL1, BL2, and BL3.

Shade/Acronym definitions:

- E = Enamel and D = Dentin, for traditional shades
- W = White and XW = Extra White (for bleached teeth)
- Opaque to mask darkened substrates
- Clear for Palatal Wall and Incisal area
- OPL = Opalescent, optical effect shade for enamel (it exhibits a bluish tint under incident light, and shifts to an orange hue under transmitted light)

PRODUCT DESCRIPTION

DSP Chroma is a light-cured dental restorative material classified as a universal composite resin, indicated for all classes of restorations in anterior and posterior teeth using the incremental technique. The composite is nano-hybrid, exhibiting both fluorescence and opalescence. DSP Chroma is radiopaque, and its inorganic filler content consists of Barium Aluminum Glass, Silica nanoparticles, and primarily Zirconium Nano Silicate. The average particle size is 0.3 µm, with silanized particle sizes ranging from 0.035 µm to 1.0 µm—features that contribute to high mechanical properties and excellent aesthetics,

DSP CHROMA

particularly polish gloss. The total inorganic filler load by weight for DSP Chroma resin is 78% to 82% (57% to 61% by volume).

DSP Chroma resin features a matrix composed of dimethacrylate monomers, including BisGMA, BisEMA, UDMA, DDDMA, and TEGDMA. Like all types of light-cured dental composites, DSP Chroma resin utilizes a photo-activated polymerization system, meaning it requires halogen or LED blue light (within the 468 nm range) to initiate polymerization. This allows the material to cure only after the proper placement of the composite resin and the restoration shape have been achieved.

The range of shades and opacity variations was developed and based on the highest mimicking technology for dental aesthetics, ensuring success in the layering technique. Combined with its other characteristics, this provides maximum aesthetic performance and mimicking capability of natural teeth.

The OPL translucent shade features a high opalescent optical effect and, for this reason, is radioluculent.

DSP Chroma resin allows for the restoration of natural teeth aesthetics, restores masticatory functions, and contributes to patient well-being.

INDICATIONS

- Restorations of permanent and deciduous, anterior and posterior teeth, Classes I, II, III, IV, and V (all classes)
- Direct composite veneers
- Bonding of tooth fragments
- Tooth splinting
- Tooth shape correction (e.g., peg-shaped teeth)
- Diastema reduction or closure
- Core build-ups
- Non-carious cervical lesions
- Repairs in porcelain and/or composite
- Indirect restorations, such as inlays, onlays, and veneers
- Cementation of prosthetic pieces (according to the thermo-modified resin technique).

BASIC COMPOSITION

Contains methacrylate monomers, stabilizers, photoinitiator, co-initiator, fillers, silane, and pigments.

INSTRUCTIONS FOR USE

Shade Selection:

For shade selection, perform a prophylaxis. Teeth must be clean and hydrated, without isolation, as dehydration can alter the shade.

Methods for Shade Selection:

- * It can be performed using the commonly used VITA Classical® shade guide as a reference.
- * Alternatively, it can be done with a small portion of composite resin placed on the buccal surface of the tooth to be restored (without etching or adhesive system application), light-cured for 30 seconds, and moistened with the patient's saliva. This step can be performed to confirm the composite resin shade.
- * For more challenging cases, we recommend that the practitioner initially creates a tooth chromatic map. The chromatic map comprises all detailed information regarding the individual characteristics of the teeth.

Product Application

1. Isolate the operative field. The isolation must ensure a clean, moisture-free, and visible operative field throughout the treatment. Absolute isolation (rubber dam) is preferred.
2. Prepare the cavity for direct adhesive restorations.
3. Perform acid etching according to the instructions for use of the product being used.
4. Apply the adhesive system according to the instructions for use of the product being used.
5. Composite Resin Placement and Light-Curing:
 - * The incremental placement technique is recommended. This technique allows for more uniform polymerization. Use the curing times described in Table 1 for resin layers up to 2.0 mm thick.
 - * Restore the cavity according to the selected shade(s) by applying small layers (maximum thickness of 2.0 mm), carefully adapting them into the cavity.

Light-curing time

Shade	Thickness (mm)	Time (s)
Dentin	2.0	30 – 40
Enamel	2.0	20 – 30
Translucent	2.0	20
Opaque	2.0	50

Note: A longer light-curing time results in better mechanical properties of the formed polymer.

PRECAUTIONS

- * For professional use only.
- * This product is indicated only for use in accordance with these instructions for use.
- * Avoid the use of eugenol-based lining or temporary materials, as they interfere with the polymerization of the material.
- * Avoid contact of the uncured product with skin, mucosa, and eyes.
- * Avoid use in patients with a history of allergy to methacrylate-based composite resins. In case of an allergic reaction, discontinue use and refer the patient for medical assistance.
- * When operating a light-curing unit, appropriate eye protection must be worn.
- * Light-sensitive product.
- * Always keep the product sealed when not in use.
- * After extruding the product from the syringe or capsule, the content must be used promptly.
- * Light-curing units should have their power output frequently checked with a radiometer.

CONTRAINDICATIONS

The product is contraindicated for patients allergic to methacrylates. The product contains methacrylate monomers that may cause mild allergic or irritant reactions in patients sensitive to these substances. In case of allergic reactions to the product, discontinue use.

CONSERVATION, STORAGE, AND TRANSPORT

- * Always keep the product in its original, sealed packaging.
- * Protect from direct sunlight.
- * Store the product at a temperature between 5 °C and 25 °C.

PRODUCT DISPOSAL

Do not reuse empty packaging. For product disposal, consult current local regulations.

WARNING

- * Respect the expiration date. Never use the product if the expiration date has passed.
- * For dental use only by a qualified professional.
- * Before using the product, inspect its appearance. If any anomaly is observed, contact the manufacturer immediately.
- * The manufacturer is not liable for damages caused by inappropriate use or incorrect handling.
- * The OPL shade must be used only as an intermediate layer in the incisal region.
- * To ensure better polymerization of the final resin layer, light-cure for 40 seconds.

NOTE:

1. Use a light-curing unit within the 400 to 500 nm wavelength range with a power output starting at 600 mW/cm².
2. Occlusion verification is essential. High-occlusion restorations put severe stress on both the tooth and the restoration, which can cause pain and clinical failures.
3. Sanding discs or fine-grit burs can be used for finishing, and felt discs and polishing pastes are recommended for polishing.

ADVERSE EFFECTS

The primary adverse effects associated with light-cured composite resins include post-operative sensitivity, pulpal inflammation, allergic reactions to monomers, mechanical failures, microleakage, and gingival irritation. Most of these complications can be avoided through a proper adhesive technique, correct light-curing parameters, absolute isolation, and incremental application of the material.

DATE OF MANUFACTURE: SEE PACKAGING

EXPIRATION DATE: SEE PACKAGING

SYMBOLS

	Manufacturer
	Country of manufacture
	Authorized representative in the European Community
	Importer
	Keep away from sunlight
	Temperature limit
	Consult Instructions for use Consult electronic Instructions for use
	Keep dry
	Caution: Federal law restricts this device to sale by or on the order of a licensed healthcare practitioner