

Anterior/Posterior Universal Fine Microhybride type Light cured composite restorative material

Excellent esthetics, polishability of nano composite from one hand and outstanding physical characteristics such as coefficient of thermal expansion (close to human dentin) and radiopacity from the other hand are combined in a new material due to a high filler content (weight – 79%) and bimodal particle size glass filler (average particle size – 0.4-0.7 micron for basic filler and 0,02 – 0,04 micron for nanofiller).

●● INDICATIONS

- Highly esthetic restorations of I, II, III, IV and V cavities
- Onlay and Inlay
- "Sandwich" technique
- Fiber Splinting
- Crown Build Up

●● INSTRUCTIONS FOR USE

Cavities are prepared in the conventional manner. In very deep or large restorations and in cases of near pulp exposure the use of a calcium hydroxide liner is recommended e.g. Jen-Line LCF. The liner should only be placed in the deepest part of the restoration, or such as to cover the near pulp exposure. The restoration floor may then be optionally covered with a more mechanically strong dental cement or liner such as Jen-Line LCF, containing calcium hydroxyapatite and complex fluorides or fluoroalumosilicate glass.

●● RESTORATING OF ANTERIOR GROUPS OF TEETH.

The use of a mylar strip is recommended for interproximal separation and as a matrix. Etch the enamel surrounding the cavity including undercuts with enamel conditioner (Phospho-Jen AS Gel) for 15 – 20 sec., wash and dry. Apply Bonding Agent (Jen-Unibond is recommended) over the enamel margins and cure for 10 seconds. Place restorative material with a tapping movement and cure. In very deep cavities more than one layer may be required. Shape with appropriate finishing diamond or multi-fluted carbide burs, contour proximal surfaces with finishing strips. Check occlusion with a thin articulating paper, carefully adjust occlusion by removing material with a fine polishing diamond or stone. Finish with discs and rubber cups.

●● POLYMERIZATION DEPTH FOR DIFFERENT JEN-RADIANCE SHADES

MAIN PROPERTIES OF JEN-RADIANS

Test	ADA/ISO Requirement	Jen-Radiance LC / Test Results
Ambient Light Sensivity*	Material will show no signs of polymerization After exposure to 10000 lux light for 60 sec.	Pass
Depth of Cure*	>4,5 mm	5,0 mm
Flexural Strength*	S>N	S=115-125 MPa N=91,6 MPa)
Water Sorption*	Less than 50 micrograms/mm ³	10,1 micrograms/mm ³
Water Solubility*	Less than 50 micrograms/mm ³	1,97 micrograms/mm ³
Shades	Match color standard	Pass
Color Stability*	1 mm sample disk will show no more than slight discoloration after exposure to 5000 K color, 10000 lux light source	Virtually no discoloration
Radio Opacity*	Opacity of 1 mm sample disk shall be greater Than 2 mm 99,5% pure aluminum plate	Pass
Compressive Strength*/**	Not specified	410 MPa
Tensile Strength*/**	Not specified	45 MPa

*Following ADA/ISO specifications for test procedures. / **Test not required for certification; no minimum requirement is set.

●● PHOTOPOLYMERIZATION OF JEN-RADIANS

Use a unit for the polymerization intended for the materials containing camphoroquinone as the initiator, that is with a spectral maximum of radiation around 465 nanometers. The minimal power of unit should be not less than 550 mWatt/cm², and the time of polymerization should be in the 20 – 30 sec range.

●● POLYMERIZATION DEPTH FOR DIFFERENT JEN-RADIANCE SHADES

(Typical LED Light Unit)

	Polymerization Depth	Polymerization Time
Transparent Shades	Less than 4.5 mm	20 – 30 sec
Enamel Shades	Less than 3 mm	20 – 30 sec
Opaque shades (main Dentin)	Less than 2.5 mm	20 – 30 sec
SuperOpaque Shades	Less than 1 mm	20 – 30 sec

●● PRECAUTIONARY MEASURES

- During the work with the material use special glasses, gloves, clothes and mask Goggles are recommended for the patients also.
- Observe the security measures provided during the work with powdery, siliceous substances. Use goggles, a mask and gloves.

●● COLLATERAL REACTIONS

The product can cause irritation of eyes, skin and mucous membranes. (see. CAUTION section).

●● INTERACTION WITH OTHER DENTAL MATERIALS

Use of eugenol-containing materials in a combination with Jen-Radiance is contraindicated. Evgenol-containing dental materials can have negative impact on ability to an polymerization.

●● WARRANTY

The manufacturer warrants the quality of manufactured products. The adverse events inflicted by violation of user manual, storage conditions and other events inflicted by non-stipulated usage of the material are not the subjects of warranty. The customer is responsible for determination of suitability of this product for user's application. Warranty conditions: the product does not comply with requirements declared by manufacturer. In this case the manufacturer replaces the defective material within warranty period.

●● RESTORATING OF POSTERIOR GROUPS OF TEETH.

Place a mylar strip or matrix band for interproximal separation and fix it with wedges. Adapt the band to seal the gingival area to avoid overhangs. Note: the matrix may be placed following the enamel etching if preferred. Apply Bonding Agent (Jen-Unibond is recommended) over the enamel margins and cure for 10 seconds. To aid in adaptation, the first 1,5 mm layer of Jen-Radiance may be placed and adapted to the proximal box. A condensing instrument can be used to adapt the material to all of the internal cavity aspects and cure it. The next portions of Jen-Radiance may be placed in layers less than 2,5 mm. Cure each increment separately. Shape with appropriate finishing diamond or multi-fluted carbide burs, contour proximal surfaces with finishing strips.

The use of Jen-Radiance Molar is recommended for the deep cavities in posterior teeth. Use Jen-Radiance Molar according to the Manual of this material.

ATTENTION! Jen-Radians Molar has to be used strictly in combination with suitable universal restorative material (such as Jen-Radiance) or restorative material for posterior teeth, in particular with those dental and/or enamel shades which are intended for replacement of occlusive vestibular enamel (for example, with enamel and dental shades of Jen-Radiance). Jen-Radiance can't be used independently for replacement of occlusive vestibular enamel.

●● CAUTIONS

Jen-Radiance contains methacrylic resins that may cause an allergic reaction by skin contact in certain individuals. Avoid long or repeating contact of not-polymerized material with the skin (allergic contact dermatitis is possible), soft tissue of the oral cavity and eyes.

In case of contact, immediately wash thoroughly a place of contact with water and soap. If there is rash or other signs of allergic reactions on the skin stop use of the material and ask for medical care.

Use of this product in patients with known acrylic allergies is to be avoided.

●● LIMITATION OF LIABILITY

The manufacturer's liability is limited by only cases stipulated by direct legislation of the country.

●● STORAGE

- Inappropriate storage conditions will reduce shelf life and can lead to deterioration of properties of the material. Don't expose this product to direct sunlight. Store a material in a dry place.
- Store this product at the temperature of 4 – 25 °C [39,2 – 77 °F].
- Shelf life of Jen-Radiance is 3 years.
- DO NOT FREEZE!

●● RECYCLING

Dispose of the medical device in accordance with local / regional / national / international legal requirements.

●● PACKING

- Jen-Radiance is packed in syringes on 4 g.
- 6 Transparent Shades: IOP; I; OR (Opal Rosy); OY (Opal Yellow); OBL (Opal Blue); OG (Opal Gray)
- 13 Enamel Shades: A1-E; A2-E; A3-E; A3,5-E; A4-E; B0,5-E; B1-E; B2-E; B3-E; C2-E; C3-E; D2-E; D3-E
- 13 Opaque (Main dentin) Shades: A1-O; A2-O; A3-O; A3,5-O; A4-O; A5-O; B1-O; B2-O; B3-O; C2-O; C3-O; D2-O; D3-O
- 4 SuperOpaque Shades: WOP (White Opaquer); OBR (Opaquer Bright); UO (Universal Opaquer); SWOP (Super White Opaquer)