

ENGLISH

Read all information, precautions and notes before using.

PRODUCT DESCRIPTION AND GENERAL INFORMATION

- PALFIQUE LX5 is a light-cured, radiopaque, submicron filled composite resin for use in anterior and posterior restorations and is indicated for all carious classes. PALFIQUE LX5 contains 82% by weight (71% by volume) of silica-zirconia filler and composite filler. A high filler load offers decreased polymerization shrinkage. All inorganic filler contained in PALFIQUE LX5 is a spherical submicron filler (mean particle size: 0.2 μm , particle size range: 0.1 to 0.3 μm) that is designed to deliver excellent gloss retention and wear resistance. The monomer matrix contains Bis-GMA and Triethylene glycol dimethacrylate.
- PALFIQUE LX5 implements Radical-Amplified Photopolymerization initiator technology (RAP technology). Curing time for PALFIQUE LX5 can be shortened by one-third using a light curing unit with a wavelength range of 400 to 500nm (peak: 470nm) compared to our conventional resin composite. Please see the table depicting the relationship between curing time and increment depth (**INDICACIONES PARA EL RELLENADO Y EL CURADO**).
- RAP technology facilitates a longer working time for PALFIQUE LX5.
- 4) PALFIQUE LX5 is provided either in SYRINGE or Pre Loaded Tip(PLT).

SHADE

- A1, A2, A3, A3.5, A4, A5, B1, B2, B3, B4, C1, C2, C3, OA1, OA2, OA3, OPA2, BW (Bleach White), WE (White Enamel), CE (Clear Enamel/Incisal) and SW (Snow White).
 - Opalescent shades (OA1, OA2, OA3) have adequate opacity designed for blocking out the dark shin that comes through the oral cavity (Class III and Class IV restoration). The opalescent shades also serve as a dentin layer for the multi-shade layering technique. Shades OA1, OA2 and BW closely match those of primary teeth. However, they are not designed for masking metal or a darkly stained area such as tetracycline stained.
 - OPA2 is designed for masking slight stain or reconstructing a highly opaque tooth (use as a thin layer at the lingual wall of class III and IV).
 - Please check with your local distributor for available shades.

INDICATIONS

- Direct anterior and posterior restorations including the occlusal surface and all carious classes
- Direct bonded composite veneer
- Diastema closure
- Repair of porcelain/composite

CONTRAINDICATIONS

- PALFIQUE LX5 contains methacrylic monomers. DO not use PALFIQUE LX5 for patients allergic to or hypersensitive to methacrylic and related monomers.

PRECAUTIONS

- DO NOT use PALFIQUE LX5 for any purpose other than those listed in these instructions. Use PALFIQUE LX5 only as directed herein.
- PALFIQUE LX5 is designed for sale and use by licensed dental care professionals only. It is not designed for sale nor is it suitable for use by non-dental care professionals.
- DO NOT use PALFIQUE LX5 if the safety seals are broken or appear to have been tampered with.
- If PALFIQUE LX5 causes an allergic reaction or oversensitivity, discontinue its use immediately.
- Use examination gloves (plastic, vinyl, or latex) at all times when handling PALFIQUE LX5 to avoid the possibility of allergic reactions from methacrylic monomers. Note: Certain substances/materials may penetrate through examination gloves. If PALFIQUE LX5 comes in contact with the examination gloves, remove and dispose of the gloves, and wash hands thoroughly with water as soon as possible.
- Avoid contact of PALFIQUE LX5 with eyes, mucosal membrane, skin and clothing.
 - If PALFIQUE LX5 comes in contact with the eyes, thoroughly flush eyes with water and immediately contact an ophthalmologist.
 - If PALFIQUE LX5 comes in contact with the mucosal membrane, wipe the affected area immediately, and thoroughly flush with water after the restoration.
 - If PALFIQUE LX5 comes into contact with the skin or clothing, immediately saturate the area with alcohol-soaked cotton swab or gauze.
 - Instruct the patient to rinse his mouth immediately after treatment.
- PALFIQUE LX5 should not be ingested or aspirated. Ingestion or aspiration may cause serious injury.
- To avoid the unintentional ingestion of PALFIQUE LX5, do not leave it unsupervised within the reach of patients and children.
- Clean the placement instruments with alcohol after use.
- When using a light-curing unit, protective eye shields, glasses or goggles should be worn.

INDICATIONS FOR FILLING AND CURING

Be sure to light-cure PALFIQUE LX5 extraorally and check the time needed for complete hardening of PALFIQUE LX5 with your light curing unit before performing the bonding procedure. The following table illustrates the relationship between curing time and increment depth.

Light type	Intensity (mW/cm ²)	Curing time (seconds)	Increment depth (mm) ⁽¹⁾	
			A1, A2, A3, A3.5, B1, B2, B3, C1, C2, OA1, OA2, CE(Inc.), BW, WE	A4, A5, B4, C3, OA3, OPA2, SW
Halogen	400	10	1.9	1.6
		20	2.2	1.9
	600	10	2.0	1.7
		20	2.5	2.0
LED	800	5	1.8	1.6
		10	2.2	1.9
	260	10	1.7	1.4
		20	2.0	1.7
Plasma Arc	900	5	1.7	1.5
		10	2.0	1.8
Plasma Arc	950	3	1.9	1.5

⁽¹⁾ Increment depth was determined on the basis of test results performed in accordance with section 7.10 "depth of cure" of ISO4049: 2000.

SPECIAL NOTES FOR THE USE OF PLT

- PLTs are designed for single patient use only. Do not re-cap and/or re-use the PLT tip once material has been dispensed for that patient.
- Dispensers are not provided for PALFIQUE LX5. Use a dispenser that fits the PLT of PALFIQUE LX5. For proper use and proper disinfection, see manufacturer's instructions.
- Apply the composite at normal room temperature (18 - 30°C / 62 - 84°F). Material that is

too cold might be difficult to extrude.

- Use light, controlled pressure to prevent any continued extrusion of material following pressure release.

STORAGE

- Store PALFIQUE LX5 at a temperature between 0 - 25°C (32 - 77°F).
- AVOID direct exposure to light and heat.
- DO NOT use PALFIQUE LX5 after the indicated date of expiration on the syringe or PLT package.

DISPOSAL

To safely dispose of excess PALFIQUE LX5, extrude unused portion from SYRINGE or PLT and light-cure before disposal.

CLINICAL PROCEDURE**1. Cleaning**

Thoroughly clean the tooth surface with a rubber cup and a fluoride-free paste then rinse with water.

2. Shade Selection

Select the appropriate shade of PALFIQUE LX5 prior to placing the rubber dam using the shade guide provided for PALFIQUE LX5.

- Complete the shade selection within 5 minutes; desiccated teeth are lighter than wet or moist teeth.

- Lightness (color value) is primary importance on shade selection.

- When wavering in shade selection, select the lighter (high value) shade.
- In case of whitened teeth select the shade a few weeks after the completion of whitening. Whitened teeth may become slightly darker.

3. Isolation

A rubber dam is the preferred method to isolate the tooth from contamination.

4. Cavity Preparation

Prepare the cavity and rinse with water. Add bevels to the enamel margins of anterior preparations (class III, IV, V), as well as chamfers to the margins of posterior preparations (class I, II) because bevels and chamfers assist in erasing demarcations between the cavity margins and restoration, thereby enhancing both esthetics and retention.

- Scalloped (undulant) bevel could be desirable depending on the esthetics and retention.

- In case of porcelain/composite repairs, roughen the surface with a bur or a diamond point to prepare the area for adhesion; apply phosphoric acid etch for cleaning; rinse thoroughly with water; air dry thoroughly and treat with a silane coupling agent according to manufacturer's instructions.

5. PLT Protection

Glass ionomer lining or calcium hydroxide should be applied if the cavity is in close proximity to the pulp. DO NOT USE EUGENOL BASED MATERIALS to protect the pulp as these materials will inhibit curing of bonding agent and/or PALFIQUE LX5.

6. Bonding system

Apply light-cured bonding system according to manufacturer's instructions.

- Do not use self-cured bonding systems. We advise that light-cured bonding systems should be used with PALFIQUE LX5 since other types of bonding systems such as self-cured or dual-cured bonding systems may not provide effective adhesion when used with light-cured composite resins. If you want to use self-cured or dual-cured bonding systems, please confirm that such bonding systems are compatible with the light-cured composite resins being used.

7. Dispensing**7-1. PLT**

Please read **SPECIAL NOTES FOR THE USE OF PLT** before use.

- Load the PLT into a dispenser that fits the PLT.
- Remove the PLT cap.
- Extrude the paste directly into cavity or indirectly on the mixing pad.

7-2. SYRINGE

Remove the syringe cap. Extrude the paste onto a mixing pad by turning the handle clockwise. After dispensing, turn the handle counterclockwise by a half to full turn to release residual pressure inside the syringe and re-cap the syringe immediately.

- DO NOT apply unnecessary force to the syringe immediately after removing from the refrigerator.

8. Filling and contouring

Fill the cavity incrementally. Increments should not exceed the indicated depth (please refer to the aforementioned table).

- DO NOT mix PALFIQUE LX5 with other brands of resin composite or other shades of PALFIQUE LX5 to avoid incomplete cure or voids.

9. Curing

Light-cure each increment for at least the indicated time (please see aforementioned table), keeping the curing light tip within a distance of 2 mm from the increment.

- If other brands of composite resins are layered over the cured composite, follow their instructions.

10. Finishing

Shape and polish the restoration. For finishing, use fine finishing diamond points. To erase the demarcation between the composite and the natural tooth rotate a 12 fluted carbide bur slowly along the margins without water. Use finishing metal strips or vinyl strips for proximal surfaces. For polishing, polish with rubber points or any suitable polishing tool, such as PoGo™ (DENTSPLY/Caulk), Sof-Lex™ (3M ESPE), Identoflex® HiLuster Dia Polishers (Kerr), or D-FINE™ Hybrid Diamond (COSMEDENT, Inc.).

* PoGo, Sof-Lex, Identoflex and D-FINE are not registered trademarks of Tokuyama Dental Corporation.

CAUTION: Federal law restricts this device to sale by or on the order of a dental professional.

IMPORTANT NOTE: The manufacturer is not responsible for damage or injury caused by improper use of this product. It is the personal responsibility of the dental professional to ensure the product is suitable for application before use. Specifications are subject to change without notice. When the product specification changes, the instructions and precautions may change also.

ESPAÑOL

Lea toda la información, las precauciones y las advertencias antes de utilizarlo.

DESCRIPCIÓN DEL PRODUCTO E INFORMACIÓN GENERAL

- PALFIQUE LX5 es una resina compuesta con relleno de partículas de tamaño inferior a una micra, fotopolimerizable y radioopaca, para utilización en las restauraciones dentales anteriores y posteriores, indicada para cualquier tipo de cavidad. Contiene un 82% de su peso (71% de su volumen) de relleno de sílice-dióxido de zirconio y de compósito. Una alta carga de relleno confiere una menor contracción de polimerización. Todo el material de relleno inorgánico contenido en PALFIQUE LX5 corresponde a partículas esféricas de tamaño inferior a una micra (tamaño medio de una partícula: 0.2 μm ; escala de tamaño de partículas: de 0.1 a 0.3 μm), diseñadas para proporcionar un excelente pulido de alto brillo y resistencia al desgaste. La matriz del monómero contiene Bis-GMA y trietilenoglicol-dimétacrilato.
- PALFIQUE LX5 implementa la tecnología de iniciador de fotopolimerización radical amplificada (tecnología RAP, Radical-Amplified Photopolymerization). El tiempo de curado de PALFIQUE LX5 puede ser reducido a un tercio, utilizando una lámpara de fotopolimerización con una longitud de onda de un espectro entre 400 a 500 nm (con picos a 470 nm), comparada con las demás resinas compuestas convencionales. Consulte la tabla que describe la relación entre el tiempo y la profundidad de curado (**INDICACIONES PARA EL RELLENADO Y EL CURADO**).
- La tecnología RAP facilita una mayor duración de vida para PALFIQUE LX5.
- PALFIQUE LX5 existe en JERINGA o en boquillas desecharables (PLT, "Pre Loaded Tip").

1) Increment depth was determined on the basis of test results performed in accordance with section 7.10 "depth of cure" of ISO4049: 2000.

SPECIAL NOTES FOR THE USE OF PLT

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- Apply the composite at normal room temperature (18 - 30°C / 62 - 84°F). Material that is

COLOR

A1, A2, A3, A3.5, A4, A5, B1, B2, B3, B4, C1, C2, C3, OA1, OA2, OA3, OPA2, BW (Bleach White), WE (White Enamel), CE (Clear Enamel/Incisal) y SW (Snow White).

- Los tonos opalescentes (OA1, OA2, OA3) tienen la opacidad adecuada para impedir que transparente el tono oscuro debido a la cavidad bucal (restauración de Clase III y IV). También pueden servir de capa de dentina en la técnica de estratificación de varios tonos. Los tonos OA1, OA2 y BW son muy parecidos a los de los dientes temporales. No obstante, no están diseñados para cubrir el metal o zonas con manchas oscuras como las manchas de tetraciclina.
- El OPA2 está diseñado para cubrir manchas leves o reconstruir dientes muy opacos (utilizado en capa fina en la pared de la cavidad lingual de clase III y IV).
- Consulte a su distribuidor local acerca de los tonos disponibles.

INDICACIONES

- Restauraciones directas anteriores y posteriores, incluida la superficie oclusal y todo tipo de cavidades.
- Veneer de composite de adhesión directa
- Cierre de diastemas
- Reparación de porcelana/compósito

CONTRAINDICACIONES

PALFIQUE LX5 contiene monómeros metacrílicos. NO utilice PALFIQUE LX5 en pacientes alérgicos o hipersensibles al metacrilato y a sus monómeros.

PRECAUCIONES

- NO utilizar PALFIQUE LX5 para otros fines aparte de los señalados en estas instrucciones. Utilizar PALFIQUE LX5 únicamente, conforme a las presentes indicaciones.
- PALFIQUE LX5 ha sido diseñado para la venta y el uso exclusivo de odontólogos colegiados, y en ningún caso para la venta y utilización por otro tipo de profesionales.
- NO utilizar PALFIQUE LX5 si los recipientes de seguridad están rotos o presentan signos de manipulación.

4) En caso de que PALFIQUE LX5 causara una reacción alérgica o hipersensibilidad, suspender inmediatamente su utilización.

- Se recomienda utilizar siempre guantes de exploración (de plástico, vinilo o látex) al manipular PALFIQUE LX5 con el fin de evitar posibles reacciones alérgicas debidas a los monómeros metacrílicos. Advertencia: Algunas sustancias/materias pueden penetrar a través de los guantes. En caso de contacto de PALFIQUE LX5 con los guantes de exploración, retirarlos, desechálos y lavarse bien las manos con

