

YP.Flowable Light-curing Composite Resin

■ Product Description

YP.Flowable is a low-viscosity, visible-light-activated, radiopaque, flowable nano-hybrid composite resin. Due to its excellent flowable and thixotropic properties, it can be used for small areas that cannot be reached by applying other composites. It is available in a variety of tooth-colored shades. A dental adhesive is used to permanently bond the restoration to the tooth structure.

■ Product Specifications

Shade: A1, A2, A3, A3.5, A4, B1, B2

Package: 2.0g/syringe

■ Product Composition

(1) The main components are silanized silica, silanized filler, Bis-EMA, UDMA and TEGDMA.

(2) The inorganic filler composition in the material is as follows: silicon dioxide with a particle size ranging from 0.6 μ m to 20 μ m; non-agglomerated/non-aggregated surface-modified silicon filler with a particle size ranging from 7nm to 40nm; surface-modified non-aggregated silicon dioxide filler with a particle size ranging from 10nm to 20nm. The total inorganic filler accounts for approximately 46% (by volume).

■ Product Performance

The curing depth of this product is not less than 2.0mm, the flexural strength is not less than 80MPa, the water absorption value is less than or equal to 40 μ g/mm³, and the solubility value is less than or equal to 7.5 μ g/mm³.

■ Indications

This product is suitable for the restoration of Class III and Class V cavities, minimally invasive cavity preparation restorations (including repairs of small, non-load-bearing occlusal areas), direct restorations, cavity sealing, filling of undercuts, and repairs with resin and acrylic temporary materials.

■ Contraindications

YP.Flowable contains methacrylic monomers. Do not use YP.Flowable for patients allergic to methacrylic and related monomers. Do not use YP.Flowable with any material containing eugenol.

■ 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: Before isolating the tooth, select the appropriate shade of flowable resin using the standard VITAPAN® Classic shade guide. Complete the shade selection within 5 minutes; desiccated teeth are lighter than wet or moist teeth.

(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. In case of porcelain/composite repairs, roughen the surface with a bur 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) Pulp 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 YP.Flowable.

(6) Bonding system: Apply light-cured bonding system according to manufacturer's instructions.

(7) Syringe: YP.Flowable can be transferred directly from the injection head. Remove the cap of the syringe and save it, and install the injection head on the syringe. The metal sleeve of the injection head can be bent in any direction as needed, so that the composite resin can be easily filled into the repair area that is difficult to reach. The bending angle of the metal sleeve can reach 90°.

(8) Filling and Contouring: Fill the cavity incrementally. Increments should not exceed the indicated depth (please refer to the aforementioned table). Avoid contact between reusable parts (such as the body of the syringe) and the patient's mouth. Avoid strong light in the work area.

(9) Curing: YP.Flowable can be cured using halogen or LED lamps, with a minimum light intensity of 400mW/cm² and a wavelength range of 400-500nm. Curing is performed by exposing the entire surface of each layer of material to the

high-intensity visible light source of the curing lamp. During the irradiation polymerization, the light curing light guide should be placed as close to the repair material layer as possible.

YP.Flowable	Increment Depth	Halogen or LED (550~1000 mW/cm ²)	LED (1000~2000 mW/cm ²)
Opaque Shades	1.5mm	40 sec	20 sec
All other Shades	2.0mm	20 sec	10 sec

(10) Finishing

1. Liner/Base Material Application: Apply composite material directly to cured flowable resin and follow the manufacturer's instructions for filling, curing, finishing, occlusal adjustment and polishing.
2. Direct Restoration:
 - 2.1. Finish the restoration surface with diamond, bur or stone.
 - 2.2. Check the occlusion with a thin piece of occlusal paper. Check the central and lateral moving contacts. Remove excess restoration material with fine diamond or stone to finely adjust the occlusion.
 - 2.3. Polish with finishing and polishing system or polish with white stone rubber tip or polishing paste where polishing disc is not suitable.
3. Pit and Fissure Sealant: After light curing, gently remove the remaining inhibition layer with pumice slurry or polishing paste.

■ Precautions

- (1) Avoid use of this product in patients with known allergies to acrylates. If prolonged contact of this product with oral soft tissue occurs, rinse with plenty of water. If an allergic reaction occurs, seek medical attention as needed.
- (2) When irradiating with light, please wear protective glasses and do not look directly at the irradiated light;
- (3) To avoid cross infection, do not cross-use between patients;
- (4) To avoid allergic symptoms caused by contact with the unpolymerized materials of this product, please wear plastic gloves or rubber gloves and do not touch this product directly with your hands;
- (5) When operating the solidified material and reverse grinding of this product, in order to avoid the harm of dust to the human body, please use a dust suction device, dust mask, etc., and do not inhale dust;

■ Storage

- (1) This product is designed to be used at room temperature. If the product is stored in a refrigerator, bring it to room temperature before use.
- (2) Do not expose the resin material to high temperatures or strong light.
- (3) Do not store the resin material together with products containing eugenol
- (4) Discard the used syringe cap and save the replacement syringe.

■ Shelf life: 3 years.

■ Manufacturer: Zhengzhou Yp Dental Co., Ltd.

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■ Symbols

Symbols	Instructions	Symbols	Instructions
	Manufacturer		Keep away from sunlight
	Date of Expiration		Batch code
	Date of manufacture		Refer to the instructions for use