

Light FIX

Dental Splinting Material



Clinical Procedures Simple Steps for Quick Splinting



1 Surface Preparation

Clean and rinse → Air dry



2 Etching

Apply Etchant Gel (30 sec)
→ Rinse and Air dry



3 Dispense Paste



4 Light-curing

Cure from both lingual and
labial / buccal sides



5 Finish and Polish

Curing Time

Type	Light intensity (mW/cm ²)	Curing time
LED	1,000 <	10 sec
Halogen	400 <	20 sec
Plasma Arc	1,840 <	6 sec

Precautions

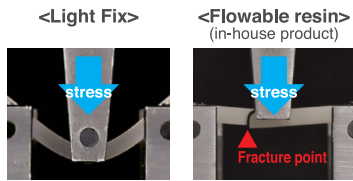
- Bond strength to the prosthesis may not be sufficient even treated with recommended primers.
- Adjustment of Paste application, such as bonding to increased surface area, may be necessary for increasing durability to accommodate each clinical case.

STF for Strength, Toughness and Flexibility. STF monomer can manage complicated stress better.

Great for Splinting Teeth

Newly developed "STF monomer" has high resiliency and toughness to absorb constant stress caused by splinting mobile teeth.

■ Three point bending test

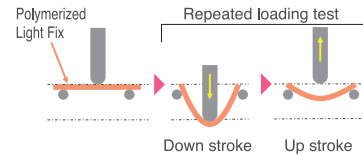


Maximum flexural strength

Light Fix	76 MPa
Flowable resin (in-house product)	115 MPa

(in-house data)

■ Repeated bending test



* Measuring conditions : displacement 3.0 mm, cross-head speed 1.0 mm / min

Repeated bending test

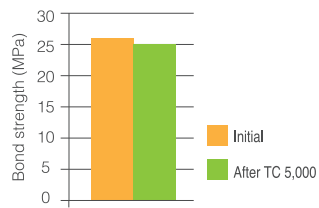
Light Fix	More than 30 loadings
Flowable resin (in-house product)	Fractured at the first loading

(in-house data)

High Bonding Durability

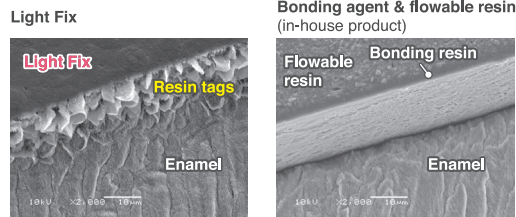
Surface treatment with Etchant Gel provides high permeability of Paste to enamel.

■ Shear bond strength to bovine enamel after thermal cycling



Thermal cycle: 5°C / 55°C
Based on ISO 29022:2013
(in-house data)

■ Uncut human enamel - adhesion interface



Light Fix used with etching (30 sec) showed about 3 μm resin tags due to the high permeability of STF monomer (Left), while the flowable resin used with self etching adhesive (pH 2.5) had smooth bonding interface to the enamel with no tags.

(in-house data)

Bonding of Orthodontic Attachments

Light Fix Paste flows into the groove of brackets base flawlessly to achieve tight bond between enamel and brackets.



■ Shear bonding strength of Light Fix to various brackets

- Evaluated after 24 h immersion in water at 37 °C -

	Bracket materials			
	Stainless Steel	Zirconia	Alumina	Polyurethane
Bond strength (MPa)	12	11	12	11

(in-house data)

* Cure from both medical and distal sides, when using a metallic bracket etc. from which light is hard to transmit.

* Before curing, Paste is low in viscosity and flowable. Light-cure the attachment one by one while securing the attachment on a tooth, for direct bonding system.

Package



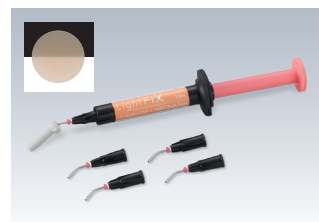
Light Fix

Light Fix Kit

Light Fix Paste (Clear)-----2 (1.5mL)
19G Needle ----- 10 with 2 Needle Caps (Gray)
Light Fix Etchant Gel-----1 (3mL)
23G Needle Tip (Blue)-----5 with 1 Needle Cap (Blue)



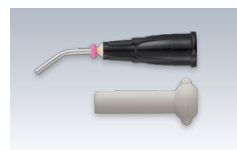
Light Fix Paste (Clear)
1.5mL



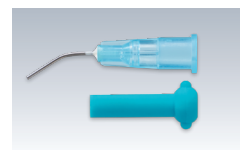
Light Fix Paste (Tooth Color)
1.5mL



Light Fix Etchant Gel
3mL



19G Needle Tip
20 with 1 Needle Cap (Gray)



23G Needle Tip
20 with 1 Needle Cap (Blue)