

M.L. Primer & CeraResin Bond

# P&R Repair Kit

Scientifically Formulated for  
Bonding Metal, Ceramic & Resin Materials...



## Bonding Ceramic or Resin to Metal with Confidence...

Bonding of ceramic or resin to metal is always a challenge to the dental profession, its reliability is always unpredictable due to several clinical and technical factors involved. Now, Shofu has created a new versatile bonding system that can be used clinically for repair of fractured ceramic or indirect composite restorations intra-orally (even when metal is exposed). Besides it can also be used in the laboratory for fabrication and repair of prostheses providing an excellent bond to all kinds of metals, ceramic and resin materials.

### **M.L. Primer & CeraResin Bond**

M. L. Primer is a single bottle metal link primer, which enhances the bonding of resin materials to a wide variety of metals due to its 2 newly developed bonding monomers. M. L. Primer improves the bonding strength of resin and metal compared to electro-tin plating.

When used together with CeraResin Bond a 2-step light cure bonding material a secure bond can be achieved easily and efficiently.



**M.L. Primer**



**Ceramic & Bonding Agent**



### INDICATED FOR

- Fabrication and repair of resin veneer restorations, metal dentures and metal attachments
- Repair of porcelain fused to metal restorations. (even when metal is exposed)
- Bonding and repair of metal restorations (onlays, crowns, bridges), metal splints, posts and cores.
- Temporary repair of fractured metal partial dentures
- Modification and repair of artificial teeth
- Repair acrylic denture base, etc.

**>>> M. L. Primer should be used only on an exposed metal surface during fabrication and repair of prostheses.**



## CLINICAL APPLICATIONS



Metal surface pre-treatment when relining metal denture base.



Repair of fractured crown when metal is exposed.

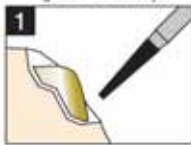


Repair of fractured crown when metal is not exposed.

*Repair has never been easier...*

### M.L. Primer

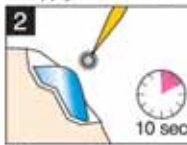
Adhered surface treatment (pre-treatment)



Roughen the surface with abrasives such as diamond points. Rinse and dry.



Apply M.L. Primer



Apply M.L. Primer to the surface of metal and leave it undisturbed for 10 seconds, and apply opaquer to the metal surface. (light cure according to the instruction)

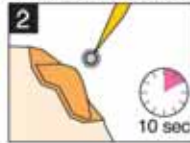
\*When metal is not exposed, this treatment is unnecessary.

### CeraResin Bond

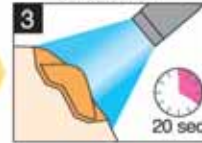
Apply Bond 1 - leave it undisturbed for 10 seconds.



Apply Bond 2 - leave it undisturbed for 10 seconds.



Light cure - with halogen resin curing light for 20 seconds.



\*Always follow from steps 1 to 2.

Use a resin material according to each application.

### 1. Restoration of fractured porcelain veneer

- Photos by Prof. Toru Sato, Tokyo Dental University



Before -  
Fracture in distal angle of 21



After -  
Restoration with CeraResin Bond and Solidex

### 2. Build-up of composite to establish Occlusal Guidance

- Photos by Dr. Tomohiko Sato



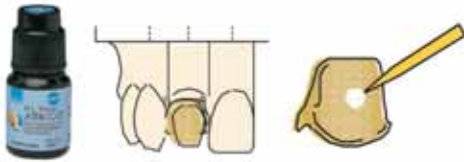
Before -  
Loss of guidance due to attrition



After -  
Establishing guidance with CeraResin Bond and Solidex with no visible bonding line

## LABORATORY APPLICATIONS

### M.L. Primer



Metal surface treatment during fabrication of indirect composite resin facing crown (Ceramage / Solidex).

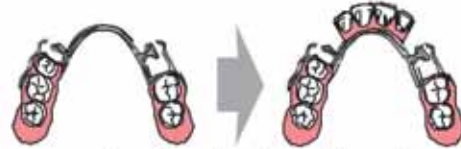


Metal surface treatment when fabricating a metal denture base.

### CeraResin Bond



Modification of composite resin or acrylic resin artificial teeth. (Specially the occlusal surface)



Temporary repair of fractured metal partial dentures.

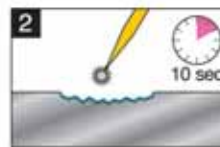
## Simple steps for an ultimate bond...

### M.L. Primer

Adhered surface treatment (pre-treatment)



1 Roughen the surface by sandblasting, rinse and dry.



2 Apply M.L. Primer leave it undisturbed for 10 seconds.

### CeraResin Bond

Adhered surface treatment (pre-treatment)



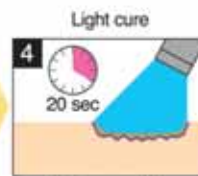
1 Roughen the surface with abrasives such as diamond points.



2 Apply Bond 1 Leave it undisturbed for 10 seconds.



3 Apply Bond 2 Leave it undisturbed for 10 seconds.



4 Light cure with halogen resin curing light for 20 seconds.

\*Always follow from steps 1 to 2.

Use a resin material according to each application.

1. Metal surface treatment during fabrication of indirect composite resin (Ceramage / Solidex) facing crown

- Photos by Shoji Asano, CDT



Apply M.L. Primer and build-up using Solidex Opaque, Body and incisal shades

2. Metal surface treatment during fabrication of Combination / Partial metal denture base

- Photos by Mr. Kazunari Ohata, MZT

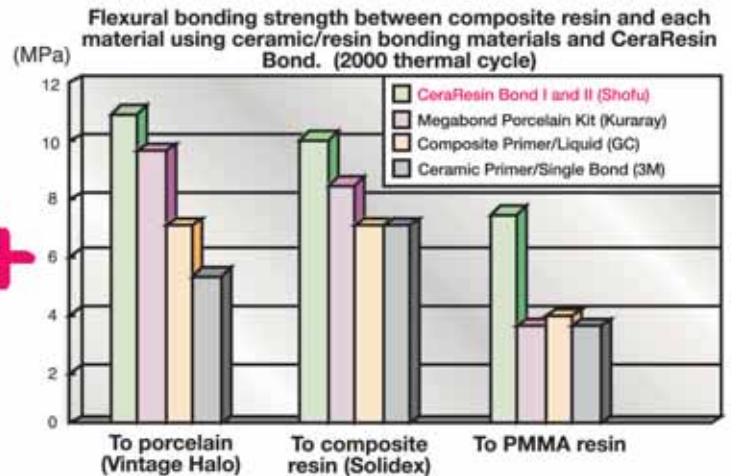
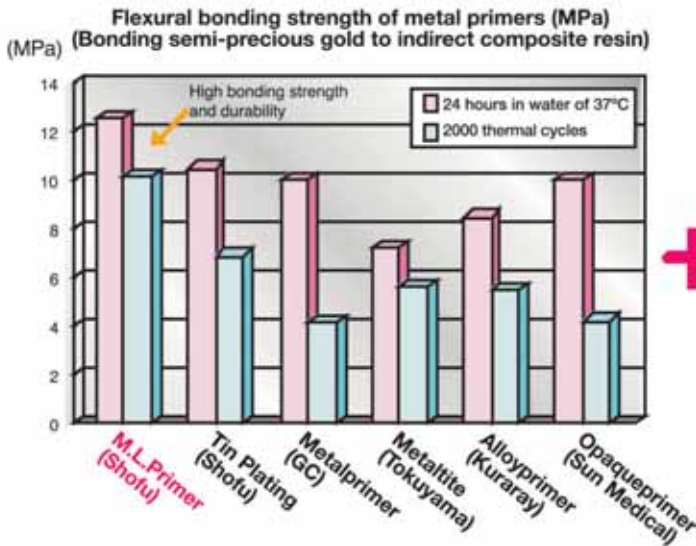


Apply M.L. Primer with MicroBrush



## BENEFITS

- Simple and easy procedure
- Short working time
- Transparent and thin bonding layer (non-sticky, spreads in a thin and even layer)
- No demarcation of bonding line (specially useful during repair and fabrication of highly aesthetic prosthesis)
- The strong bond between resin and metal prevents marginal leakage, erosion and staining
- High bonding strength and durability



## BONDING MECHANISM OF M.L. PRIMER

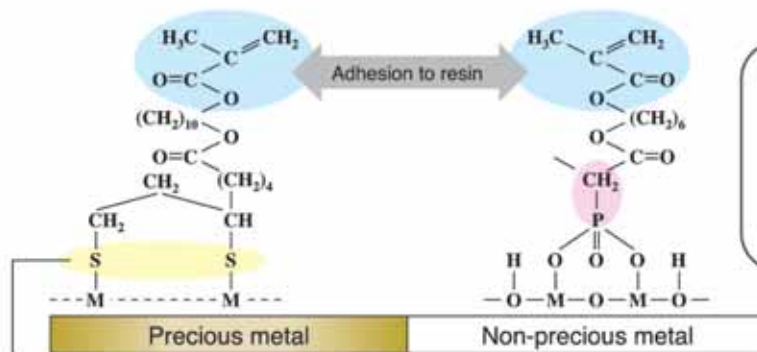
M. L. Primer has the unique ability to bond all kinds of metals (semi-precious, precious and non-precious) with resin material due to the specially developed precious metal adhesive monomer and non-precious metal adhesive monomer.

### 10-MDDT (10-Metacryoxydecyl-6,8-dithioctanate)

● Precious metal adhesive monomer

Contains 2 sulfur atoms

➔ Sulfur atoms have an important role in bonding. Since this adhesive monomer contains 2 of those sulfur atoms and the structure is built to absorb the metal ions easier than the conventional adhesive monomer, it provides secure adhesion to the metal surface.



2 bonding group (sulfur atoms) in 1 molecular structure <double bonding effect>

### 6-MPHA (6-Metacryloxyhexylphosphonoacetate)

● Non-precious metal adhesive monomer

Using this adhesive monomer with a strong structure between C-P it is less affected by water

➔ Excellent bonding durability

Non-precious metal

## ORDER INFORMATION



P&R REPAIR KIT [PN-1739]



ML PRIMER, 5mL [PN-1740]



CERARESin BOND 1, 6mL [PN-1742]



CERARESin BOND 2, 5mL [PN-1743]



CERARESin BOND SET [PN-1741]

## RELATED PRODUCTS



CERAMAGE INTRO SET



BEAUTIFIL II COSMETIC SET



PROVINCE SELF-CURE ACRYLIC RESIN



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