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.

**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)

1. Roughen the surface with abrasives such as diamond points. Rinse and dry.
2. Apply M.L. Primer
   - Apply M.L. Primer to the surface of metal and leave it undisturbed for 10 seconds, and apply opaque to the metal surface. (light cure according to the instruction)
   - When metal is not exposed, this treatment is unnecessary.
3. Use a resin material according to each application.

**CeraResin Bond**

1. Apply Bond 1 - leave it undisturbed for 10 seconds.
2. Apply Bond 2 - leave it undisturbed for 10 seconds.
3. Light cure - with halogen resin curing light for 20 seconds.

*Always follow from steps 1 to 2.*

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
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...

1. Metal surface treatment during fabrication of indirect composite resin (Ceramage / Solidex) facing crown
   - Photos by Shoji Asano, CDT

2. Metal surface treatment during fabrication of Combination / Partial metal denture base
   - Photos by Mr. Kazunari Ohata, MDT

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

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

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**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.

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10-MDDT (10-Metacryroydecyl-6,8-dithioctanate)  
6-MPHA (9-Metacryloxyhexylphosphonoacetate)

- **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.

- **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

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