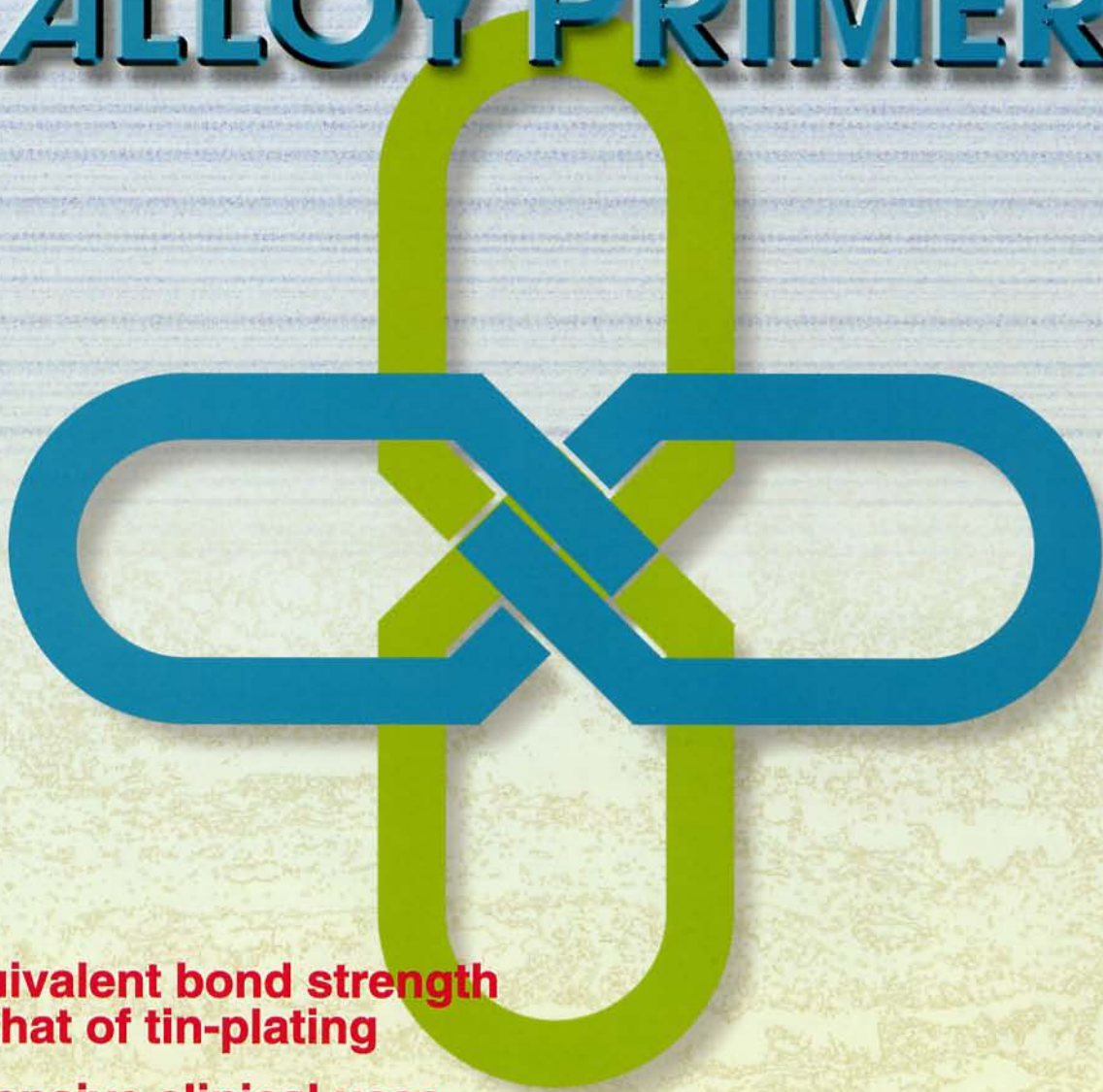


Use **ALLOY PRIMER** with all dental metals for:

- **Eliminating complicated tin-plating**
- **Intra- and extra- oral applications**

ALLOY PRIMER



- **Equivalent bond strength to that of tin-plating**
- **Extensive clinical uses**
- **Easy handling**

Metal Adhesive Primer

ALLOY PRIMER



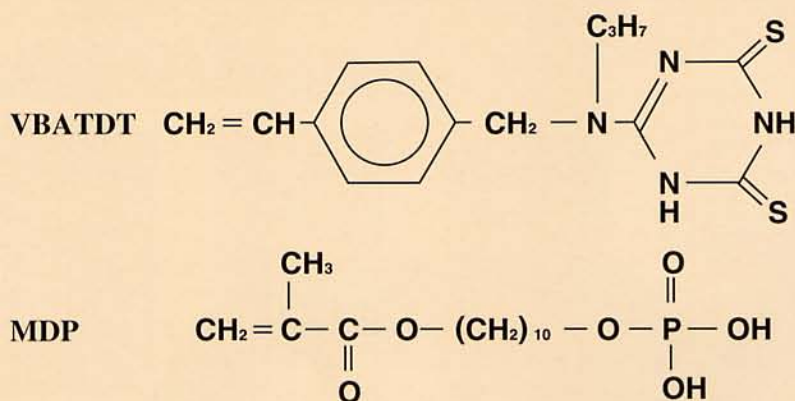
ALLOY PRIMER is a metal conditioning agent used to enhance the bond strength between dental metals and resin-base materials. It contains **VBATDT** and **MDP**. Due to the **VBATDT** and **MDP**, **ALLOY PRIMER** enhances the bond strength to both precious and also non-precious metals. In addition, the fact that **ALLOY PRIMER** can be used intra- and extra-orally produces its clinical versatility. Finally, **ALLOY PRIMER** is very easy to use. Simply apply it to the metal adherend surface, and the surface treatment is completed. Complicated tin-plating is not required.

Adhesion Mechanism

Non-precious metal:

Phosphoric acid group of **MDP** bonds chemically to the non-precious metal atoms, while the double bonds on the other end of the molecule copolymerize with the resin monomers.

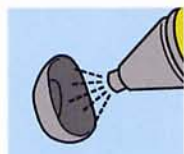
Precious metal: Sulfur atom of **VBATDT** bonds chemically to the precious metal atoms, while the double bonds on the other end of the molecule copolymerize with the resin monomers. The presence of **MDP** helps the reaction between **VBATDT** and precious metals, resulting in increased bond strength.



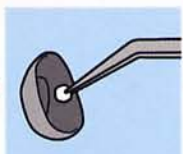
Operating Procedures / Clinical Usage

Metal inlays, onlays, crowns and bridges / Adhesion bridges and metal splints / Metal posts

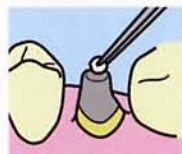
Cementing a crown to precious metal core using **PANAVIA 21**



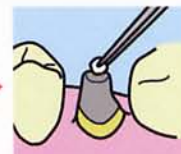
Sandblast the inner surface of the crown



Apply **ALLOY PRIMER** to the inner surface of the crown



Apply **ALLOY PRIMER** to the metal core



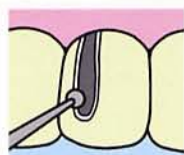
Apply **PANAVIA 21 ED PRIMER** to the metal abutment and tooth structure



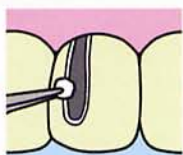
Cement using **PANAVIA 21** paste

Repair of fractured resin-based facing crowns and porcelain-fused-to-metal bridges and crowns

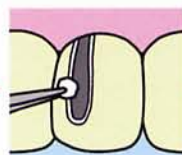
Repairing with ***CLEARFIL PORCELAIN BOND** and **CLEARFIL AP-X**



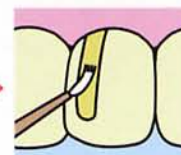
Preparation of fractured surface



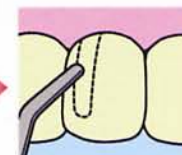
Apply **ALLOY PRIMER** to the metal adherend surface



Apply **CLEARFIL PORCELAIN BOND** to the porcelain (or resin) and metal adherend surface



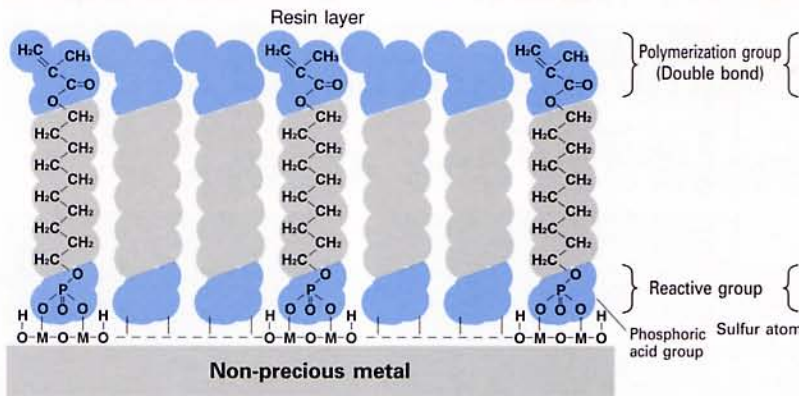
Apply **PHOTO CLEARFIL OPAQUER** or opaque resin to mask out metal color



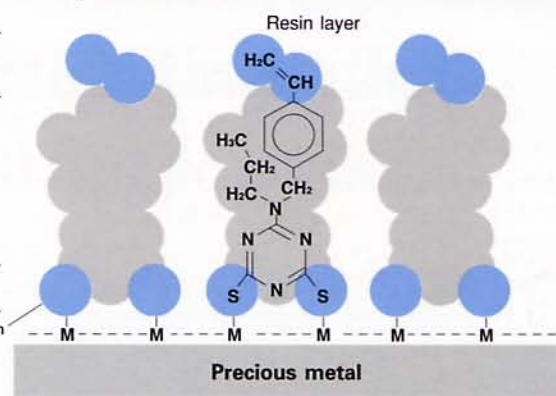
Place **CLEARFIL AP-X** composite resin paste and light cure for the specified time

* **CLEARFIL PORCELAIN BOND** consists of **CLEARFIL NEW BOND** and **CLEARFIL PORCELAIN BOND ACTIVATOR**. **CLEARFIL PHOTO BOND** can be used instead of **CLEARFIL NEW BOND** with **CLEARFIL PORCELAIN BOND ACTIVATOR**.

● Chemisorption Mechanism of MDP to Non-precious Metal



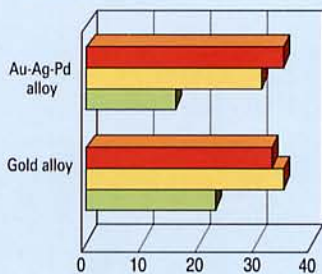
● Chemisorption Mechanism of VBATDT to Precious Metal



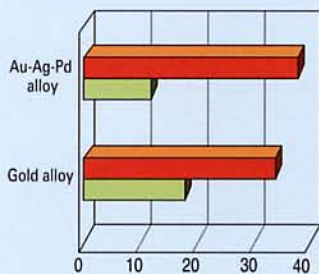
M=Metal atom

Tensile Bond Strengths between Resin-based Materials and Dental Alloys (MPa)

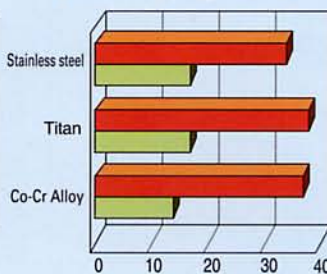
● PANAVIA 21*



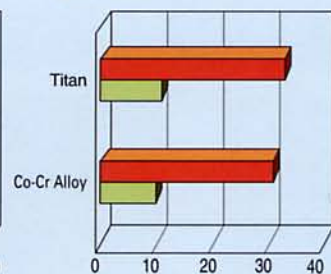
● CLEARFIL PORCELAIN BOND **



● Self-cured acrylic resin **



● Denture **



*After 3,000 thermal-cycled at 4°C-60°C for 1 minute each **After one day at 37°C in water

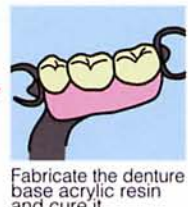
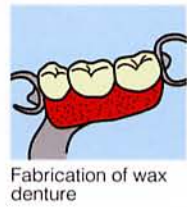
Repair of dentures Using self-cured acrylic resin



Operating Procedures / Laboratory Usage

Construction of removable dentures with a metal base, clasp or attachment

Using denture base acrylic resins (heat-cured acrylic resin, self-cured acrylic resin)



Features

- **ALLOY PRIMER** enhances the adhesion between resin-base materials and dental metals (Non-precious metals as well as precious metals).
- Surface treatment is accomplished with just one coat of **ALLOY PRIMER**.
- **ALLOY PRIMER** can be used intra- and extra- orally.

	Precious Metal	Non-precious Metal	Availability for intra-oral use
ALLOY PRIMER	○	○	○
Product A (Japan)	○	○	○
Product B (Japan)	○	○	○

Basic Procedure Step



Indications

1. Adhesion of metal inlays, onlays, crowns and bridges / Adhesion of metal cast posts
2. Repair of fractured resin-based facing crowns and porcelain-fused metal crowns and bridges
3. Construction of removable dentures with metal base, clasp or attachment
4. Repair of dentures

NOTE:

Please read **ALLOY PRIMER** Instructions for Use thoroughly before using the product. **CLEARFIL** and **PANAVIA** are trademarks of Kuraray Co., Ltd.

WARRANTY:

All data herein are based on actual measurements performed by Kuraray Co., Ltd. All information contained herein is presented in good faith and without warranty. Kuraray Co., Ltd. will replace any product that is proved to be defective. Neither Kuraray Co., Ltd. nor the distributor accepts liability for any loss or damage, direct, consequential or special, arising out of the application or use of or the inability to use these products. Before using, the user shall determine the suitability of the products for the intended use and the user assumes all risk and liability whatsoever in connection therewith.

Related Products

Dental Adhesive Cement

PANAVIA 21
(EX, TC, OP)



Light-cured Composite Resin for Anterior and Posterior Restorations
CLEARFIL AP-X



Self-cured Bonding Agent

CLEARFIL NEW BOND



Dual-cured Bonding Agent

CLEARFIL PHOTO BOND



Silane Coupling Agent

CLEARFIL POCELAIN BOND ACTIVATOR