SILMET Alternative to Expensive Name Brands

**ProLink Cem** *Plus* 

Self Adhesive Universal Resin Cement



## **Positioning Statement**

#### **Simplify Your Daily Cementation Procedures**

ProLink Cem Plus, an innovative addition to our ProLink family, can be used in virtually every clinical application and adheres to numerous restorative material (e.g: Zirconia oxide, Glass infiltered Alumina, lithium disilicate - following etch with HF and metals). Can be used on crowns, veneers, inlays/onlays, bridges, crowns/abutments on implants, and posts

ProLink Cem Plus incorporates a unique , functional 10-MDP monomer whose chemical structure allows for a polar behavior which is favorable to adhesion. This monomer also promotes the protection of collagen fibers through the formation of MDP-calcium salts

This enables exceptional strong bonds to tooth tissue and virtually all prosthetic materials. There is no need for a separate primer (Silane only in the case of lithium disilicate & Leucite).

10-MDP has a long carbon chain which allows it to penetrate deeper into dentin and enamel. The monomer permeation enables etching of tooth substrate thus creating a stronger bond as well as increasing hydrophobicity. This facilitates for better adhesion performance to enamel, metal and non-glass ceramic substrates.

ProLink Cem Plus is perfect for the adhesive cementation of:

- Metal and metal ceramics (inlays, onlays, crowns, bridges, endodontic posts)
- High strength all ceramic: zirconium oxide, lithium disilicate, aluminium oxide ceramics (crowns, bridges, endodontic posts)
- o Fiber reinforced endodontic composite posts

Like other similar self-adhesive cements, pre-treatment of the tooth, such as etching, priming and bonding, is eliminated, reducing steps and saving chair time.

The bonding capabilities of ProLink Cem *Plus* are influenced by its chemical characteristics. The cement's matrix, composing of acidic phosphate/carboxylate functional molecules such as 10-methacryloyloxydecyl dihydrogen phosphate (10- MDP) results in chemical adherence to metal oxides, including such base metal alloy, zirconia

Thanks to the dual-cure self-adhesive chemistry, the efficient chemical polymerization of the cement ensures optimal bonding when thick or opaque restorations are used and no additional light-curing is needed.

ProLink Cem Plus features a unique MDP monomer that provides enhanced chemical bonding especially to Zirconia and tooth tissue (dentin enamel ). No need for separate primer!



## **Features & Benefits**

Feature	Benefit	Key message
Single step cementation	Saves time by eliminating etching, priming and bonding steps	Shortens clinical procedure and chair time
MDP Monomer	Enhances bond strength	Strong chemical bond to tooth tissue, zirconia ceramics and metals
Tack light cure option	Fast and easy clean up, takes seconds	No sticky residue and saves chair time
Esthetic	Available in Translucent and Opaque White shades	Popular shade options, more useful & aesthetic for thin restorations, as opposed to the opaque look of older cements.
Handling characteristics	Thin viscosity & film thickness	Easy to dispense and spread along margins
Efficient self-cure mode / chemical polymerization	Ensures optimal bonding	Secures adhesion at all times, even under opaque or thick restorations
Convenient dispensing - Automix Syringe	Consistent mixing ratio	Easy handling and flexible dose dispensing, saving treatment time
Excellent radiopacity	Reduces chance of misdiagnosis	Easily identified on radiographs. Helps to diagnose secondary caries, determine the proximal contour of the restoration as well as its contacts with adjacent teeth

## **Properties**

Compressive Strength Flexural Strength Shear Bond Strength to Enamel (Zirconia) Particle size ( $\mu$ ) Film thickness ( $\mu$ m) Working time Setting time 275-300 MPa 75-125 MPa 28-32 MPa 0.02 μm-20 μm (inorganic filler ~40% *vol*) 12 2-2.5 min 3 min 15 secs

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## **Competitive Information**

Company	Brand	Info
Kuraray	Panavia SA Cement Universal	syringes \$140

### **Selling Tips**

- **Excellent bond** to tooth structure and to a great number of restorative materials
- **Option of** Light-cure or dual-cure
- Works in both dry & moist environments
- Simplicity of use with an automix syringe reduce chair time
- Shortens clinical procedure and chair time when used with Zirconia based restorations

### Related products: Prolik Universal

### Ref:

Item code: 15C5PUN	ProLink Cem Plus, automix syringe, (5 gr+tips), Universal shade
Item code: 15C8PUN	ProLink Cem Plus, automix syringe, (8 gr+tips), Universal shade

**Retail Price: \$115** 

**Download Product Images:** 



## FAQ

#### 1. How does ProLink Cem Plus work?

ProLink Cem Plus has adhesive components that eliminate the need for separate etchants and primers for bonding to tooth, alloy, or ceramic substrates that are required with the use of other cementation alternatives. ProLink Cem Plus is designed specifically to interact with the dentine substrate with minimal additional surface preparation. It bonds to the untreated tooth surface that is neither micro-abraded nor pre-treated with an etchant, primer or bonding agent. The cement can be directly applied to the restoration fitting surface that can then be luted to a non-treated tooth surface. If involved with very low retention, consider Prolink Cem

### 2. Does ProLink Cem Plus have 10 MDP?

Yes. This monomer has the capacity to produce an acid-base resistant zone on the adhesive interface, which increases the response to acid-base challenges. This unique functional monomer also creates a crosslinked cement matrix during radical polymerization, which contributes to greater mechanical and dimensional stability The 10 MDP monomer facilitates a strong bond to zirconia, metal, and alumina substrates without the use of a primer. The incorporation of functional monomers in dental adhesive systems promotes chemical interaction with dental substrates, resulting in higher adhesion forces when compared to micromechanical adhesion only. The 10-MDP monomer allows for a polar behavior which is favorable to adhesion, also promotes the protection of collagen fibers through the formation of MDP-calcium salts.

#### 3. Why are Self-adhesive resin cements popular?

Improved properties is one of the reasons why clinicians have been shifting from conventional luting materials (zinc phosphate, zinc polycarboxylate, and glass-ionomer cements) to resin-based luting materials. **ProLink Cem Plus** is a viable clinical choice with advantages over traditional luting cements: ease of use, improved mechanical properties to strengthen the final restoration, and ability to bond to multiple substrates. This is especially true in cases such as cementation of fiber posts, monolithic zirconia crowns, and PFM crowns when moisture control is challenging for adhesive application.

4. What is the difference between ProLink Cem (self adhesive) vs. ProLink Cem Plus (universal self adhesive)

Both self-adhesive universal resin cements and self-adhesive resin cements have their own unique advantages and disadvantages, and the choice of which cement to use depends on several factors including the type of restoration being cemented, the substrate that the restoration is being cemented to, and the clinician's personal preference.

- Self-adhesive resin cement is a versatile cement that can be used with various types of restorations, including metal, ceramic, and composite restorations. It is also effective for use with a wide range of substrate materials, including dentin, enamel, and metal. This type of cement offers high bond strength, low solubility, and good marginal adaptation.
- Self-adhesive universal resin cement, on the other hand, is designed to do the same but also can be used with zirconia restorations without the need of Zirconia primer ahead. ProLink Cem Plus contains 10-MDP, one of the most stable functional monomers, which provides high bond strength to zirconia and natural teeth without additional surface treatment.

Self-adhesive universal resin cement offer low solubility, and also have a relatively low film thickness, which can be advantageous for certain restorations.

In general, if a dentist is cementing a zirconia restoration, a self-adhesive universal resin cement (**ProLink Cem Plus**) would be the preferred choice. If cementing other types of restorations, a self-adhesive resin cement (**ProLink Cem**) may be more appropriate. However, each clinical situation is unique, and the dentist should make the final decision on which cement to use based on their own clinical judgment, taking into consideration factors such as the substrate material, the type of restoration, and the patient's individual needs.



This is particularly important in two commonly encountered clinical situations. When metal- or zirconia-based restorations are being luted, no light can penetrate the majority of the restoration (metal-based crowns), or light levels may not be adequate to fully cure a light-curable-only resin (zirconia crowns). Also, when luting a post into an endodontically treated tooth, light will not be able to reach any resin below 4 mm to 5 mm from the top of the visible tooth. This will potentially cause the post/core to dislodge under function, because the apical portion was not cured.

The dual curability allows the dentist to light cure what can be visualized (crown margins), and the resin cement that is not accessible to the light will undergo self-cure, ensuring that no cement is left uncured.