

## 61-20 Prompt L-Pop All-in-One Adhesive (Project 00-11)

For **UPDATE**, [click here](#).

Prompt L-Pop is a water-based, two-liquid, light-activated dentin bonding agent marketed by the ESPE America Company. It is recommended for bonding directly-placed, light-activated resin composites and compomers to enamel and dentin. Other advertised uses include as an adhesive for fissure sealing and orthodontic bracket attachment. It is important to note that Prompt L-Pop is recommended for use only with light-activated materials and not with chemical- or dual-activated ones. This is because the acidic component of the Prompt L-Pop interferes with the setting reaction of chemical- or dual-activated materials.

Prompt L-Pop is unusual in at least two respects. First, it is one of only four bonding agents packaged in unit-dose packaging, the other three being OptiBond Solo Plus (Kerr), Prime & Bond NT (Dentsply/Caulk), and Excite (Vivadent). More importantly, Prompt L-Pop is the only product that contains all three traditional bonding agent components (etchant, primer, adhesive) in one solution that is applied to tooth structure. In essence, the product etches, primes, and seals all in one application step. Because of this, ESPE America claims that the product has several important advantages compared to currently available fifth-generation bonding agents. These include: a dramatically reduced application time, greater simplicity of application, less susceptibility of the components to volatilization, and improved infection control. The company also maintains there is less post-treatment sensitivity than with other bonding agents because resin penetration is equal to dentin demineralization and this prevents nanoleakage.

The first step in applying Prompt L-Pop is to sequentially combine the two liquids that make up the product by squeezing their blister packs and using the resulting mixed liquid to wet an attached disposable applicator. The applicator is then used to apply the mixed liquid to the enamel and dentin for 15 seconds. After evaporating the agent with a gentle application of compressed air, the restorative material is applied and light activated. ESPE America notes in product instructions that the user may optionally cure the bonding agent with a 10-second light exposure prior to placing the restorative material, if desired.

### **Manufacturer:**

ESPE America  
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(800) 458-3987 FAX  
[www.espeusa.com](http://www.espeusa.com)

### **Suggested Retail Price:**

\$159.00 Prompt L-Pop All-in-One Adhesive Normal Pack (item number 041910) contains: one hundred (100) 0.12-mL L-Pops

**Government Price:** \$103.35 Prompt L-Pop All-in-One Adhesive Normal Pack (item number and contents as listed above)

### **ADVANTAGES:**

- + Is extremely fast and very easy to use.
- + Available in single-dose containers that enhance infection control and make clean-up easy.
  - + Routinely covers tooth structure with only one application. + Packaging takes up little space.
- + Is provided with simple, clear instruction card.
- + Instructions accurately describe product indications and use.

- + Expiration dates and lot numbers are stamped on individual items.
- + No offensive odor. + Includes a Material Safety Data Sheet (MSDS).

**DISADVANTAGES:**

- Bond strengths to dentin were the lowest of all the bonding agents tested thus far by DIS.
- Has limited clinical uses.
- Two-thirds of clinical users would not purchase the product for their clinics.
- No published studies assessing product's effectiveness.

**SUMMARY AND CONCLUSIONS:** Prompt L-Pop is an innovative, unit-dose bonding product that is extremely quick to apply and easy to use. Its unit-dose packaging enhances infection control, prevents evaporation of the mixed agent, and makes clean-up easy. Unfortunately, the product has several important disadvantages. Prompt L-Pop's chief disadvantage is its low bond strength: the value was lower than that of any bonding product yet tested by DIS. Equally problematic is that Prompt L-Pop has limited clinical applications. For example, it can only be used with light-activated materials and is not used for such common bonding purposes as amalgam bonding or porcelain repair. Also, because it is incompatible with chemical- or dual-activated materials, it can not be used as a dentin/enamel pretreatment prior to luting restorations with chemical-activated or dual-activated resin cements. **Prompt L-Pop** is rated **Marginal** for use by the federal dental services.

**UPDATE** In November 2001, 3M ESPE reformulated Prompt L-Pop. The most important changes include using a different photoactivator, camphoroquinone. 3M ESPE claims that this allows the product to be light activated with a variety of curing lights, such as halogen, laser, light emitting diode, and plasma arc. Second, a subtle yellow tint has been added to the adhesive to act as a visual check that the product has been properly activated by thorough mixing. The tint also makes it easier for clinicians to see where they have applied the product. Finally, the application instructions have been changed. The new technique calls for applying the mixed Prompt L-Pop by rubbing it into the tooth surface with moderate finger pressure and then lightly dried. Also, the instructions call for a mandatory 10-second light curing. With the original product, light curing was optional, although DIS didn't find that it affected bond strength. The packaging of the new version of Prompt L-Pop is nearly indistinguishable from the previous version, with the main exception being that while the original box bore a red circular sticker on the front, the reformulated version bears a blue circular sticker.