

## RelyX ARC Adhesive Resin Cement (Project 99-11) (01/00)

RelyX ARC Adhesive Resin Cement is a dual-cured, two-paste, permanent luting agent marketed by the 3M Company. The cement is filled to 67.5 percent by weight with zirconia/silica particles having an average size of 1.5 microns. Two shades, Transparent (A1) and Universal (A3), are available. The dispensing system for RelyX ARC consists of an innovative "clicker." The clicker is a plastic, finger-activated device that dispenses equal amounts of the base and catalyst pastes, which are then mixed by hand. When used with Single Bond fifth-generation dentin bonding agent, which is supplied with the cement, RelyX ARC is recommended for the cementation of indirect restorations such as crowns, bridges, inlays, onlays, "Maryland" bridges, and endodontic posts. The restorations may be made of porcelain, ceramic, precured resin, or metal. RelyX ARC is also recommended by 3M for amalgam bonding. Silane solution and illustrated technique cards are also provided.



### Manufacturer:

3M  
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### Suggested Retail Price:

\$225.00 RelyX ARC Introductory Kit (product number 3415)  
-one 4.5-g paste, shade Transparent (A1)  
-one 4.5-g paste, shade Universal (A3)  
-one 6-mL bottle of Single Bond Adhesive  
-one 5-mL bottle of 3M RelyX Ceramic Primer  
-two 3-mL syringes of phosphoric acid etchant  
-accessories  
-illustrated technique cards

### Government Price:

\$135.00 RelyX ARC Introductory Kit (product number and contents as listed above)

### ADVANTAGES:

- + Very low thin film thickness (11 microns).
- + Adequately radiopaque.
- + Working time is long enough so users do not have to rush during mixing and placement.
- + Relatively short setting time minimizes post-cementation chair time.
- + "Clicker" device worked well at dispensing equal amounts of the base and catalyst pastes.
- + Pastes are easy to mix.
- + Has appropriate viscosity.
- + Easy to clean excess cement from margins.
- + Shades were adequate for majority of cases treated during evaluation.

- + Graphics-containing instruction cards were very helpful.
- + Expiration dates and lot numbers are provided for all items in kit.
- + Supplied with silane solution and a fast, easy-to-use bonding agent.

**DISADVANTAGES:**

- Not intended for use in luting porcelain veneers.
- Material Safety Data Sheet (MSDS) not shipped in kit.

**SUMMARY AND CONCLUSIONS:**

Laboratory testing showed that RelyX ARC Adhesive Resin Cement has a very thin film thickness, appropriate working and setting times, and is adequately radiopaque. Clinical evaluators found it easy to use and judged its innovative "clicker" dispenser to be very handy. RelyX ARC has a wide range of uses, including amalgam bonding, but is not recommended for the commonly performed procedure of luting porcelain veneers. 3M recommends another of their products, Opal Luting Composite, for that purpose. This is an important limitation because other popular resin cements such as Nexus (Kerr) and Variolink 2 (Ivoclar) provide this capability at the same price or a lower price than that of RelyX ARC. Users gave the cement high marks for its ease of mixing and viscosity. Even though it comes in only 2 shades, they were sufficient for most clinical cases encountered during the evaluation. **RelyX ARC Adhesive Resin Cement** is rated **Acceptable** for use by the federal dental services.