

Dyract Compomer Restorative (Project 95-20) (01/96)

Dyract, a polyacid-modified composite resin, is recommended by the manufacturer for use as a restorative material in class III and class V lesions and for the restoration of class I and class II lesions in deciduous teeth. By definition, a polyacid-modified composite resin has some of the basic ingredients found in a traditional glass-ionomer cement, but does not have them in sufficient quantities to undergo a typical acid/base glass-ionomer reaction. As a result, the material either does not exhibit a chemical, acid/base, glass-ionomer setting reaction or exhibits one that contributes little to its overall setting. Dyract is strictly light activated and will not set unless it is exposed to a visible light unit. According to the manufacturer, the product is filled 72% by weight with a strontium-aluminum-fluoro-silicate reactive filler. The glass filler contains 13% by weight of fluoride. Dyract is packaged as unit-dose Compules in a blister pack. The Compules fit in standard composite resin dispenser guns. It is available in eight shades, all of which are keyed to the Vita shade guide. Dyract is used by placing the material in the cavity preparation following enamel and dentin treatment with Prime & Bond dentin bonding agent. Dyract is light activated for 40 seconds with any standard light unit and is then finished and polished.

Manufacturer:

L.D. Caulk
L.D. Caulk Division
Dentsply International, Inc.
P.O. Box 359
Milford, DE 199630359
(800) 532-2855
(302) 422-4511
(800) 788-4110 FAX

Suggested Retail Price:

\$189.95 Dyract Intro Kit (item number 685001) contains:
-ten Compules of each of the following shades: A2, A3, A4, B3, C2, C3
-1 bottle (4 mL) of Prime & Bond
-dispensing gun
-shade guide

\$56.95 Dyract Refills (each shade has an individual item number); each refill contains twenty 0.25-g Compules

Government Price:

\$104.45 Dyract Intro Kit (contents and item number as listed above)
\$31.30 Dyract Refills (each shade has an individual item number); each refill contains twenty 0.25-g Compules

ADVANTAGES:

- + Well-received by clinical evaluators who found Dyract easy to use.
- + Does not stick to instruments during placement.
- + Overall esthetics of finished restorations were very good.
- + Compule shade is clearly marked on each blister pack.
- + Expiration date is stamped on each blister pack.
- + Available in eight shades, all keyed to the Vita shade guide.
- + Shade guide tabs are color-coded to the plastic end of the Compules.
- + Shade guide tabs are made of Dyract material which facilitates accurate shade selection.
- + Is provided with a laminated card that uses graphics to illustrate product use.
- + Is sufficiently radiopaque to ensure easy detection on a radiograph.
- + Is as hard as the resin-modified glass-ionomer products, Vitremer (3M), Fuji II LC (GC America), and Photac-Fil (ESPE).

- + Bond strength to dentin is very good; rivals that of several current-generation dentin bonding agents.
- + Provided with a Material Safety Data Sheet (MSDS).
- + Manufacturer's instructions are well written and informative.
- + Cost per gram of product (\$6.26) is comparable to that of several popular composite resins (i.e., Prisma TPH [\$6.22], Z100 [\$6.55]).
- + Supplied with gun dispenser.

DISADVANTAGES:

- Manufacturer does not recommend use for class I, II, or IV restorations.
- Packaging of blister packs in a tray is somewhat bulky and cumbersome.

SUMMARY AND CONCLUSIONS:

Dyract was very well-received by most of the clinical evaluators. They found the manufacturer's instructions to be particularly well-written. Placing the product was straightforward and easy. Final restorations were easy to polish and were judged to be extremely esthetic. The number of shades was adequate to match most clinical cases and the custom shade guide facilitated accurate shade matching. Individual Compules are packaged in blister packs to extend shelf life but the way the packs are stored in the box (in plastic trays) made it difficult to remove the product from its cardboard box. The product performed well in the laboratory, exhibiting adequate radiopacity and very good bond strength. Per gram of resin, the product is comparable in price to several popular composite resins. **Dyract** is rated **Acceptable** for use by the federal dental services.