Point 4 Optimized Particle Composite System (Project 00-02) (01/01)

Point 4 is a light-cured "ultra-small particle" resin composite designed for use in all cavity classes in the anterior and posterior dentition. Kerr claims that Point 4 combines the polishability/esthetics of a microfill with the strength of a hybrid. It is available in 22 shades which include 16 Vita-indexed base shades, 3 extra-light shades, and 3 translucent shades. Kerr claims that this range of shades provides the user with the ability to create true, lifelike restorations.

Compositionally, Point 4's Bis-GMA resin matrix is based on the matrix used in its popular products, Herculite XRV and Prodigy. The resin is filled to 57.2% by volume (76% by weight) with barium aluminoborosilicate glass and fumed silicon dioxide filler particles. The filler particles have an average size of 0.4 microns (hence the name "Point 4") and 90% of the particles are smaller than 0.8 microns. Kerr claims that by incorporating a "polymerizable dispersant" it has been able to: (1) increase the percentage filler level and (2) use filler particles with an average size that is smaller than that than used in traditional hybrid resin composites. This is purported to provide the material with excellent esthetics and strength properties.

Manufacturer:
Kerr Corporation
1717 W. Collins Avenue
Orange, CA 92867-9880
(800) 537-7123
(714) 516-7400
(714) 516-7633 FAX
www.kerrdental.com

Suggested Retail Price:
$238.50 Point 4 Unidose Kit (item number 29685)
-50 0.2-g Unidose Tips (10 each of shades A2, A3, A3.5, XL2, T1)
-25 pouches of OptiBond Solo Plus
-two 3-g syringes of Kerr Gel Etchant
-one 5-mL bottle of OptiGuard Surface Sealant
-one Unidose Dispensing Gun
-accessories

Government Price:
$135.85 Point 4 Unidose Kit (item number and contents as listed above)

ADVANTAGES:
+ Available in a wide range of shades and different opacities.
+ Overall esthetics was rated very highly by clinical evaluators.
+ Handles extremely well; viscosity and ease of placement are excellent.
+ Adequate radiopacity; should not present the possibility of diagnostic misinterpretation on radiographs.
+ Comparable in hardness to other popular hybrid resin composites.
+ Compactly packaged in a user-friendly plastic "tackle box."
+ Is supplied with an easy-to-use, unit-dose dentin bonding product, OptiBond Solo Plus.
+ Comes with summary instruction card for bonding agent.
+ Capsule dispensing gun is provided in kit.
+ Unidose capsules have long nozzle that facilitates direct placement.
+ All components have lot numbers and expiration dates on them.
DISADVANTAGES:
- Kit contains only 5 of the 22 available shades.
- Kerr data indicate Point 4 has a tensile strength less than that of Z100 (3M) and TPH (Dentsply/Caulk).
- More expensive than several currently-available hybrid resin composites.
- Requires a 40-second curing time.
- No Material Safety Data Sheet shipped with product.

SUMMARY AND CONCLUSIONS:
Point 4 resin composite was very well-received by clinical users who particularly appreciated its ease of handling and excellent overall esthetics. In general, it performed well in the laboratory but did not distinguish itself as being better than other hybrids with regard to tensile strength or hardness. Its primary disadvantage is that although it is available in a large number of shades, only five are provided in the standard kit. A growing trend among new resin composites is for their manufacturers to recommend a shorter (i.e., 20-second) curing time per 2-mm increment than the standard 40-second duration. Point 4 takes more time to place because it still uses a 40-second curing duration per increment. Point 4, while more expensive than several popular hybrid resin composites, is comparable in cost to its direct competitor, Esthet-X (Dentsply/Caulk). **Point 4 is rated Acceptable for use by the federal dental services.**