

Tempit Ultra (Project 02-43) (09/03)

Tempit Ultra is a noneugenol, visible-light-activated, single-component material for the temporary restoration of teeth. According to its manufacturer (Centrix), it is a diurethane dimethacrylate resin microfilled to 30% (presumably by weight) with silicon dioxide particles to enhance wear resistance and durability. Centrix claims that temporary restorations made of Tempit Ultra can last for up to a year. The product requires no mixing and is packaged in single-use, unit-dose capsules that should fit most manufacturers' composite dispensing guns. Among the advantages claimed for the product are that it is biocompatible, easy to remove with a bur, and less soluble than zinc oxide-eugenol temporary materials. Since it does not contain eugenol, there should be no potential for Tempit Ultra to interfere with the polymerization of subsequently placed resin-based final cements. The Tempit Ultra capsules are provided in a small, plastic jar with a screw-on lid. The product is also available in a fluoride-containing version (Tempit Ultra-F).



Manufacturer:

Centrix Incorporated
770 River Road
Shelton, CT 06484-5458
(800) 235-5862
(203) 929-5582
(203) 929-6804 FAX
www.centrixdental.com

Suggested Retail Price:

\$52.95 Tempit Ultra (REF 310065)
-thirty 0.25-g capsules

Government Price

\$47.95 As listed above

ADVANTAGES:

- + Quick to place because it sets via light curing.
- + Users gave good ratings to the product's durability.
- + Good consistency for packing into lesion/preparation.
- + Convenient to use because it does not need to be mixed.
- + Unit-dose packaging enhances infection control.
- + Has compressive strength similar to that of IRM.
- + No objectionable odor.
- + Does not contain eugenol.
- + Lot number and expiration date are provided on product container.
- + Provided with a Material Safety Data Sheet (MSDS).

DISADVANTAGES:

- Does not meet manufacturer's claim for 6-mm depth-of-cure.
- Lacks adequate radiopacity.
- Sticks to placement instruments.
- Difficult to distinguish from tooth structure during removal.

SUMMARY AND CONCLUSIONS:

Tempit Ultra generally performed well during the evaluation. Users found it fast to place, durable, and esthetic. Its packaging in pre-loaded capsules and its delivery using a standard composite capsule gun made it convenient to use. Tempit Ultra had a good thickness for packing it into lesions/preparations. While it performed adequately as a temporary material, it did exhibit shortcomings of which potential buyers should be aware. Excessive stickiness, for example, made placement somewhat difficult if the instrument being used was not lightly lubricated with an acceptable separator (e.g., unfilled bonding agent). While its excellent shade match made it very esthetic, it also created problems because clinicians found Tempit Ultra difficult to distinguish from tooth structure during removal. When placing the product, clinicians should use a light exposure time of more than 40 seconds to compensate for the product's somewhat limited depth-of-cure. Laboratory results suggest that the material should be comparable to Intermediate Restorative Material (IRM) in its resistance to fracture. Users should also be aware that it also lacks sufficient radiopacity. **Tempit Ultra** is rated **Acceptable** for use by the federal dental services.