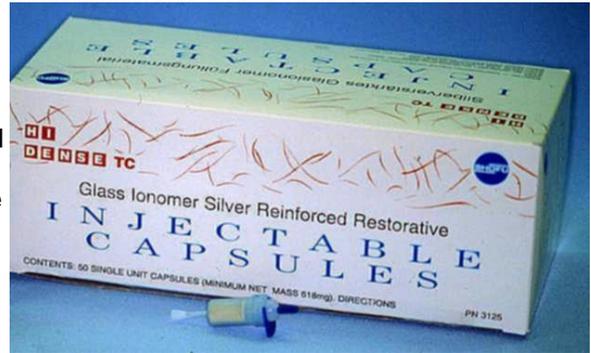


Hi Dense TC (Project 98-12) (01/99)

Hi Dense TC is Shofu, Inc.'s most recent auto-cured glass-ionomer restorative material. Hi Dense TC is a member of the newest glass-ionomer class that is described as "condensible" or "viscous." Although not a cermet glass-ionomer restorative material, Hi Dense TC contains a metal alloy of silver, tin, and copper (18 percent by weight) with additional titanium oxide (four percent by weight). Hi Dense TC has a tooth-like yellowish hue due to combined red and yellow iron oxide dye that attempts to mask the metal fillers. Shofu claims that Hi Dense TC has twice the wear resistance of silver-reinforced glass ionomers with wear resistance comparable to that of some posterior composites.



Hi Dense TC is claimed to be a condensible (similar to amalgam) general-purpose posterior glass ionomer. Shofu advertises Hi Dense TC for the following clinical indications: core buildup material, definitive restorations in the primary dentition, root caries, tunnel preparations, composite bases, restoration repair and provisional restorations. Some authors have suggested that glass ionomers such as Hi Dense TC can be the pediatric restoration material of choice in certain indications. Hi Dense TC is available in both powder-liquid, precapsulated, and direct-injectable capsule delivery systems.

Manufacturer:

Shofu Dental Corporation
4025 Bohannon Drive
Menlo Park, CA 94025
(800) 827-4638
(415) 324-0085
(415) 323-3180 FAX

Suggested Retail Price:

\$149.95 Hi Dense Injectable TC (Item # 3125), 50 Capsules
\$12.95 Hi Toothcleanser (Item # 3135)
\$16.50 Hi Glaze (Item # 3136)

Government Cost:

\$82.47 Hi Dense Injectable TC (Item # 3125), 50 Capsules
\$8.12 Hi Toothcleanser (Item # 3135)
\$11.02 Hi Glaze (Item # 3136)

ADVANTAGES:

- + Capsules provide consistent mix.
- + Manufacturer-supplied information was legible with an adequate amount of detail.
- + Good packaging configuration.
- + Radiopaque.

DISADVANTAGES:

- Difficult to adapt into existing clinical technique.
- Not easily condensed.
- Mixed material exhibits too much flow.
- Difficult to place.
- Sticks to instruments.
- Capsule applicator tip too large for pediatric preparations.

- Capsule applicator tip not adaptable.
- Long setting time may compromise pediatric patient management.

SUMMARY AND CONCLUSIONS:

Hi Dense TC is marketed by Shofu as an auto-cure, metal-containing glass-ionomer restorative material. Although clinical evaluators appreciated the packaging and conceptual delivery design, Hi Dense TC was found to demonstrate difficult clinical handling characteristics because it was too flowable, not condensible, stuck to instruments, and had a long setting time that contraindicated use in pediatric situations. Evaluators reported that this product exhibited poor overall esthetics. Clinical evaluators experienced difficulty adapting Hi Dense TC into their established clinical techniques and all reported that this product offered no advantages over materials already in use. **Hi Dense TC** is rated **Marginal** for use by the federal dental services.