

Imprint II (Project 97-17) (05/98)

Imprint II is a three-viscosity, polyvinyl siloxane impression material which, according to its manufacturer, features a short setting time and excellent drip resistance for patient comfort. 3M also claims that the product uses a new automix gun dispenser that is 40% more powerful so providers will have to exert less effort to dispense the high viscosity form of the material. Imprint II is provided with labels that are purported to facilitate product identification because they are color coded, use pictograms to show working time and setting time, and utilizes pictographs to demonstrate the intended use. The product is provided in three viscosities: low viscosity (yellow), for syringe use; regular viscosity (green), for syringe use; and high viscosity (purple) for tray use. This project involved clinical-user testing at Air Force and Army dental clinics. Laboratory testing of the material's detail reproduction, dimensional change, drip resistance, working time, and setting time was also performed.

Manufacturer:

3M
Dental Products Division
3M Health Care
3M Center, Bldg 275-2SE-03
St. Paul, MN 55144-1000
(800) 237-1650
(612) 733-8524
(800) 888-3132 FAX

Suggested Retail Price:

\$225.00 Imprint II (Item #9370) contains:
-two cartridges high-viscosity (tray) material, 48 mL each
-one 48-mL cartridge regular-viscosity (syringe) material
-one 48-mL cartridge low-viscosity (syringe) material
-two HP dispensers
-12 small mixing tips
-12 large mixing tips
-16 intraoral tips
-one 24-mL bottle tray adhesive
-set of instructions and instruction cards

Government Price:

\$135.00

ADVANTAGES:

- + Meets the ANSI/ADA specification requirement for dimensional stability.
- + Meets the ANSI/ADA specification requirement for detail reproduction; material should accurately capture fine detail. + Was found to have long enough working time to allow clinicians to mix and use the product for most general prosthodontic procedures.
- + Increased drip resistance reduces incidence of patient gagging.
- + No adverse patient reports with odor or taste.
- + Provided with a laminated instruction card.
- + Cartridges have pictograms on the labels depicting material use.
- + Is supplied with Material Safety Data Sheet (MSDS).
- + Cartridge design prevents clogging of material orifice with set impression material.
- + Cartridge cap design permits storage without utilizing used dispenser tip, facilitates infection control.
- + Clinical users liked the material's faster setting time.
- + Good packaging configuration.
- + Intraoral injection tips were found to be useful by clinical users.

DISADVANTAGES:

- Viscosity is heavier than comparable polyvinyl siloxane materials.
- Wash material was found to lack flow by some clinical users.
- Working time may not be sufficient for multiple units or complex prosthodontic procedures.
- Set material is more rigid than traditional addition silicones.
- Material may require blockout of undercuts, fixed partial dentures, or open embrasures.
- Slightly more expensive than most comparable polyvinyl siloxane materials.
- Dispenser not compatible with other manufacturer's impression cartridges.

SUMMARY AND CONCLUSIONS:

Imprint II was found to be an accurate impression material possessing more drip resistance than traditional addition silicones. A new cartridge design prevents orifice clogging and facilitates infection control by allowing storage with a cap rather than with the used mixing tip. Although the impression material's heavier viscosity may be useful, wash material on occasion was found to need more flow. When set, Imprint II is more rigid than comparable polyvinyl siloxane materials and may present problems with undercut areas. Clinical users appreciated the quicker setting time, packaging, and delivery system. **Imprint II** is rated **Acceptable** for use by the federal dental services.