

Hawe Adapt® Sectional Matrix System (Project 02-06) (09/02)

The Hawe Adapt® Sectional Matrix System is a product for establishing proper interproximal curvature and contact for resin composite and amalgam restorations. The system consists of four basic items: "sectionals," "shapers," Luciwedges®, and a set of metal forceps for placing the shapers. The sectionals are thin (0.03-mm-thick), metal or plastic matrices that come in four varieties based on height (5 mm and 6.5 mm) and curvature (moderate and increased). The shapers are transparent, plastic rings that are placed on the involved tooth to stabilize, adapt, and shape the matrices interproximally. The metal forceps are said to engage notches on the inner aspect of the spacers to securely hold them and facilitate their placement and removal. Finally, transparent plastic wedges called Luciwedges® are included in the kit to adapt and seal the matrix in the cervical interproximal area. The Luciwedges® have a hard plastic body with a soft, elastic sole that extends slightly up the sides. It is claimed that the sole allows the wedge to adapt to the contours of the tooth during placement. Note that two types of Adapt® System Kits are available: kit number 740 that has only stainless-steel sectionals and kit number 750 with only plastic sectionals. For the DIS evaluation, the metal sectional kit was provided to the clinicians along with a supply of plastic sectionals.



Manufacturer:

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Suggested Retail Price:

\$136.75 Hawe Adapt® Sectional Matrix System (item number 740 for metal sectionals, item number 750 for plastic sectionals). Each kit contains:

- 200 sectionals (50 each of the four heights/curvatures),
- 200 approximal shapers
- 1 pair of application forceps
- Hawe Adapt® Luciwedges® (5 each of small, medium, large)

Government Price:

\$77.90 Hawe Adapt® Sectional Matrix System (item numbers and contents as listed above)

ADVANTAGES:

- + Shapers provide wedging as well as matrix adaptation and contouring.
- + Shapers help adapt the sectionals to the proximal contours of the tooth.
- + Shapers are stable after placement.
- + Forceps securely held the shapers and facilitated their placement and removal.
- + Four sizes/curvatures of sectionals come in the kit.
- + Sectional matrices were judged by users to be sufficiently wide and long.
- + Plastic sectionals have a color strip to make it easier to see them during and after placement.
- + Translucency of the shapers and plastic sectionals enhances light penetration for light-activated restorative materials.
- + Extremely well-designed packaging keeps all items within the kit and separated from each other.
- + Provided with nicely done graphics-containing card that provides clear instructions for use.
- + One-time use of shapers and sectionals enhances infection control.

DISADVANTAGES:

- Shapers must be used with caution and with a rubber dam because they lack radiopacity.
- Shapers are difficult to orient until user has more experience with them.
- Wedging effect of the shapers appeared to be minimal.
- Some users may feel it necessary to place compound or other material to provide additional stabilization for shapers.
- Translucency of the shapers and Luciwedges® makes it difficult to assess if they have been placed correctly.
- Too few Luciwedges® are provided in kit.
- Kits contain either metal sectionals or plastic ones, but not both
- More time consuming to use than Tofflemire retainer, particularly with MOD restorations.

SUMMARY AND CONCLUSIONS:

The Adapt® Sectional Matrix System is specifically designed to make it easier for clinicians to produce posterior resin composite restorations with acceptable proximal contours and contacts. The packaging and graphics instruction card are particularly well done. In general, Adapt® was relatively well-accepted by the clinical evaluators who found that it helped provide an appropriate curvature to their restorations. There is a learning curve to the product because orientation of the shapers is somewhat counterintuitive. It was not particularly effective, however, in establishing a solid proximal contact. The translucency of the shapers and Luciwedges® promotes light transmission during curing, however it makes it difficult to determine if they have been properly placed. Most users found the shapers were easy to place using the supplied forceps and were stable after placement. Some users, though, may want to provide additional stabilization using compound. It is important to note that the shapers are not radiopaque, so they must be used with care and in conjunction with a rubber dam to prevent their inhalation or ingestion. Only three of the six evaluators recommended purchasing the product for their clinics. The **Adapt® Sectional Matrix System** is rated **Acceptable** for use by the federal dental services.