

INSTRUCTIONS FOR USE

Indications for use: Filling material as a treatment for dental caries.

Contra-indications for use: Do not use in persons with a known mercury allergy.

F-400 : is a superior, micro-grain, lathe-cut alloy, for the preparation of dental amalgam. The alloy to mercury ratio varies between 1/1.10 and 1/1.14 depending on the size and setting time. i.e. 52.3% to 53.3% by weight mercury. The compressive strength of F-400 at 24 hours is 400 MPa, and the dimensional change during hardening is +0.02%.

F-400 capsules have a grey body and the coloured plunger denotes the spill size, whilst the coloured base indicates the setting time:

Spill	Plunger	Alloy (mg)	Mercury (mg)
			Regular (grey)
1	white	400	440
2	blue	600	660
3	black	800	912
Working time:			
Condensing time (minutes)			5
Carving time (minutes)			8

INSTRUCTIONS:

1. Select the appropriate size capsule according to colour coding.
2. With the capsule inverted, **SLOWLY** press the plunger end of the capsule against a flat surface (see figure 1) until the flange of the plunger is flush with the capsule body (see figure 2). **THIS IS MOST IMPORTANT.** Initially, resistance will be felt, then suddenly released as the plunger pierces a diaphragm allowing the mercury to enter the mixing chamber.
3. Slightly spread the amalgamator clips and carefully insert the capsule. Ensure that the capsule is securely anchored between the clips. (see figure 3).
4. Select the appropriate mixing time from the suggested mixing times (see table 1). A range of mixing times is given to accommodate mixing variations that can occur due to machine type, age and line voltage. Correctly triturated amalgam will form into a bright homogeneous plastic mass. A hot, shiny, sticky mass indicates over trituration whilst a dull, dry or powdery mass is under triturated.
5. After trituration has been completed, **carefully** remove the capsule from the clip.
6. Tap the base end of the capsule sharply on the bench to ensure that the mixed amalgam is located in the base of the capsule (see figure 4).
7. Separate the base from the body and remove the prepared amalgam from the capsule. If the small separating diaphragm has come away from the capsule wall during activation and mixing, it will separate cleanly from the amalgam.

8. CONDENSATION:

Moisture contamination: If moisture has introduced into the amalgam before it has set, properties such as strength and corrosion resistance may be affected adversely. If the alloy contains zinc, such contamination may result in an excessive expansion (delayed expansion). Whenever it is possible, use a dry field.

Insertion of the amalgam should commence immediately after trituration. It is not necessary to express mercury prior to insertion. Traditional condensation techniques are recommended. Pack angles and undercuts with a small-faced plugger, using sufficient pressure to ensure good adaptation. Build the restoration with additional portions until cavity is slightly over filled. Remove any mercury rich amalgam from the surface, that may develop during condensation.

9. FINISHING:

Trimming and carving can be commenced immediately condensation has been completed. Light burnishing can be used to advantage and if the restoration is polished, this procedure should be carried out after 24 hours. Avoid overheating by ensuring adequate water cooling and low speed polishing.

WARNING - CONTAINS MERCURY**DANGER - POISON**

May be harmful if vapours are inhaled. Avoid breathing.
Keep container closed. Use with adequate ventilation.

Do not open capsules prior to trituration. Do not remove the coloured plunger from the capsule. The wearing of gloves, glasses and protective clothing is recommended for all dental procedures. **Dispose of used capsules in accordance with national regulations.**

- **Ingestion:** Mercury may cause neurotoxic effects and renal damage.
- **Inhalation:** Mercury may cause respiratory disorders including inflammation and fluid retention.
- **Eyes & Skin:** Mercury may cause irritations and allergic reactions.
- **Acute Exposure:** Mercury may cause irritations and allergic reactions including dermatitis, digestive and respiratory disorders.

CAUTION: Federal law restricts this device to sale by or on the order of a dentist.

Keep out of the reach of children. Single use only. Do not place the device in direct contact with other types of metals.

Spillages: Mercury presents a health hazard if incorrectly handled. Spillages of mercury should be removed immediately, including from places which are difficult to access. Use a plastic syringe to draw it up. Smaller quantities can be covered by sulfur powder and removed. Avoid inhalation of the vapour.

The information provided herein is given in good faith, but no warranty expressed or implied is made. SDS available at www.sdi.com.au or contact your regional representative.

STORAGE: It is recommended that this product be stored at temperatures below 25°C / 77°F in a well ventilated place.

Composition of alloy:

F-400: Ag 70%, Sn 26%, Cu 3.5%, Zn 0.5%

THIS ALLOY CONTAINS ZINC; THE AMALGAM MADE THEREFROM MAY SHOW EXCESSIVE EXPANSION IF MOISTURE IS INTRODUCED DURING MIXING OR CONDENSING.

F-400 capsules conform to ISO 24234 and ANSI/ADA Specification No.1.

AMERICAN DENTAL ASSOCIATION MECHANICAL AMALGAMATION REQUIREMENT

AMALGAMATOR

Cycles per second
Time of Mixing (Seconds)
Plastic Capsules

SDI ULTRAMAT 2

75
8
(2 spill regular setting time)

Figure 1

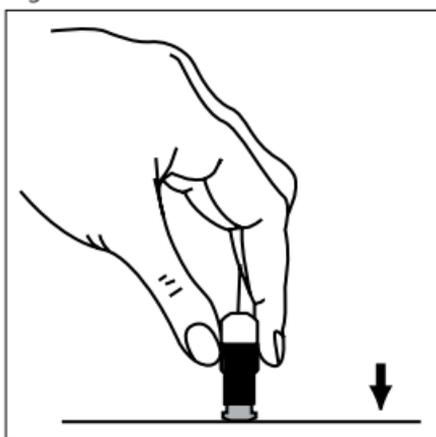


Figure 2

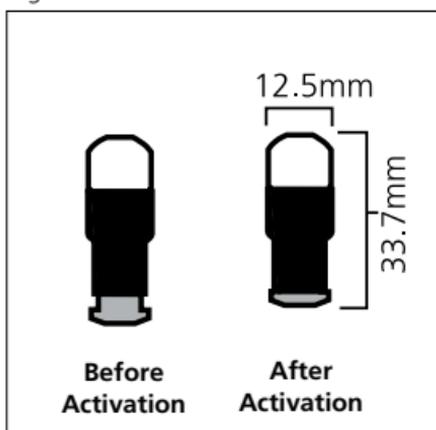


Figure 3

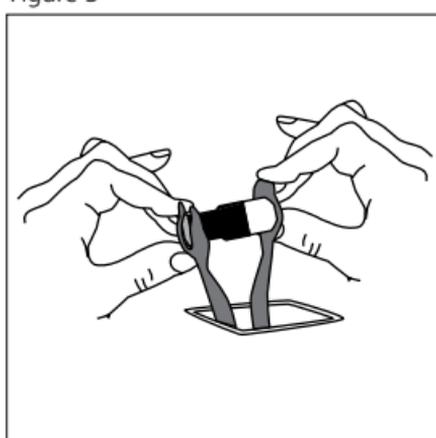


Figure 4

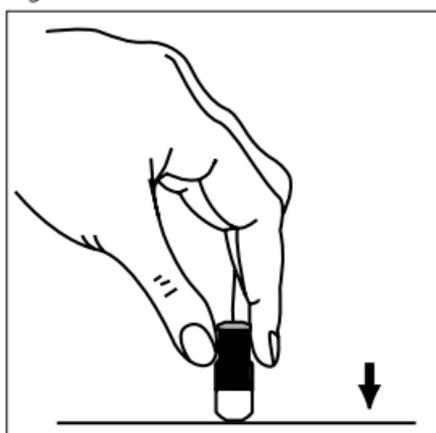


Table 1:
Recommended amalgamator settings

F-400 trituration recommendations for 1, 2 & 3 spill:

AMALGAMATOR	SPEED SETTING	1,2 & 3 spill TIME(sec)
SDI Ultramat	Single speed	7 +/-1
Capmix (Espe)		8 +/-1
Vari-Mix II (Caulk)	M2	8 +/-1
Vari-Mix III (Caulk)	M	8 +/-1
Silamat (Vivadent)	Single speed	7 +/-1
Wig-L-Bug (Crescent)		
LP-60	Medium	10 +/-2
SC-40	Medium	20 +/-5
S2000	Low	10 +/-2
DS80	Low	20 +/-2
Spirit (Pelton Crane)	3500 CPM	10 +/-2
Executive		10 +/-2
Torit	Single speed	12 +/-2
Duomat (Degussa)	3800 CPM	10 +/-2
Zenith	M	10 +/-2

NOTE: The ESPE Rotomix is not recommended for mixing SDI amalgam capsules. Capmix, Vari-Mix II, Vari-Mix III, Silamat, Wig-L-Bug, Spirit, Executive, Torit, Duomat and Zenith are not the registered trademarks of SDI Limited.

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