

# AlloyFill

## Admix Alloy For Posterior Restoration



**Product Description :** AlloyFill is a regular set, low silver (44% min), high copper non gamma-2 dental alloy consisting of a constant ratio of spherical and irregular lathe cut particles (ADMIX). As a result of this, great handling characteristics are obtained. Its high early strength together with its low static creep value lowers the risk of marginal fracture and assures long-lasting marginal integrity. It does not contain zinc thus eliminating problems due to moisture and avoids the corrosive gamma-2 ( $\gamma$ -2) phase. Tin dissolves in mercury and is preferentially bound copper thus forming  $Cu_3Sn_2$  which inhibits formation of the corrosive gamma-2 phase ( $Sn_8Hg$ ). AlloyFill is designed for mixing with mercury either in mechanical amalgamator / vibrator or by pestle and mortar.

### Composition :

Alloy of Silver, Copper and Tin in powder form consisting of spherical and irregular particles.

### Indication :

1. ALL Posterior restorations and any restoration where aesthetics is not a prime consideration.
2. AlloyFill is used in combination with mercury in stress bearing class 1, class 2 and class 5 cavities. (Amalgam Restorations).
3. AlloyFill non gamma-2 amalgam can be used for the restoration for all classes of posterior restoration including post endodontic build up.

**Manipulation of dental amalgam :** The manipulation involves five major steps.

**1. Proportioning and dispensing :** Correct proportioning of alloy and mercury is essential for forming a suitable mass of amalgam for placement in a prepared cavity. The correct ratio for alloy to mercury is **1:1. Alloy-mercury ratios** by weight alloy to mercury is used. Those mixes containing greater quantities of mercury are wetter and are generally used with hand mixing which requires the removal of excess mercury following trituration and during condensation. For optimum properties, the final set amalgam should contain less than 50% mercury.

### 2. Trituration :

**Hand Trituration :** Use a glass motor and an accurately fitting pestle for trituration. The alloy and mercury should be dispensed in a 1:1 ratio and trituated using a light but brisk motion for a period of 30-40 seconds. The recommended trituration speed is 200 revolutions / minute at 4 lbs pressure.

**Mechanical Trituration :** It can be manipulated in a alloy-mercury dispensing amalgamator. All modern amalgamators take 10-20 seconds to deliver a good mix. The mix can be mullied using a washed rubber dam to obtain a homogenous mix.

### The mix can be influenced by :

1. Speed of the particular unit.
2. The length and type of "throw" of the capsule.
3. Trituration of the alloy with the mercury is normally carried out in a mechanical amalgamator. The efficiency of the machine The presence of a pestle in the capsule.
4. Length of time of mixing.

**Over-trituration :** Alloy will be hot, hard to remove from the capsule, shiny wet and soft.

**It is better to slightly over-triturate than to under triturate an amalgam since :**

- Extended trituration may reduce plasticity.
- Shorten working time and
- Increase final contraction.

### Under-trituration :

Alloy will be dry, dull and crumbly; will crumble if dropped from approx 30 cm.

### Reduced trituration may result in :

- Incomplete wetting of the surfaces of the alloy particles by mercury.
- A weak interface between the matrix ( $\gamma_1$ ) and the particles.
- Lower strength.
- Increased porosity.
- A rougher surface.
- Increased corrosion.
- Loss of surface finish.

### 3. Condensation :

After the mix is made, condensation of the amalgam should be promptly initiated. The longer the time laps between mixing and condensation the weaker is the amalgam in addition the Hg content and creep will increase. The amalgam should be carried to the cavity with amalgam carrier incrementally; immediate condensation done after each increment with sufficient pressure in vertical and horizontal direction. The procedure of adding an increment and condensing it, adding another increment is continued until the cavity is overfilled (about 1mm) and the filling is over packed with larger condenser. The incremental method is used to ensure maximum condensation effectiveness. Remove any mercury rich amalgam that develops during condensation.

### 4. Carving :

Trimming and carving can be commenced immediately condensation has been completed. Suitable instruments should be used for carving. It is necessary to complete the carving, to refine the anatomy, contours, and marginal integrity and enhance the surface finishing of the restoration. The major portion of finishing being accomplished during this procedure.

### 5. Finishing and polishing :

Finishing is done with stone bur and the polishing can be done with rubber point at low speed rotating hand piece; avoiding generation of high temperature which affect on the pulp and cause releasing of Hg. wait 24 hours before polishing. Polish in normal manner to produce a lasting mirror like surface.

### Storage & Shelf Life :

Store at temperature between 10°C to 24°C. Close the cap carefully after use. Keep away from moisture. Shelf life not affected after opening if stored in a cool dry place.

### Shelf Life :

3-years from the date of manufacturing.

### Presentation :

Ref. 20014

1 x 30g Jar

### Disposal Conditions :

To be disposed off based on the prevailing rules of the country in which it is used.

**Prevest DenPro Limited**  
Unit II, EPIP, Bari Brahmana,  
Jammu-181133, India.  
www.prevestdenpro.com  
Customer Care No. : 1800-180-7172  
Email : customercare@prevestdenpro.com

Revision :	02
Date :	23-05-2019

- Symbol for "BATCH CODE" Symbol for "USE BY" Symbol for "NON STERILE" Symbol for "KEEP DRY"
- Symbol for "CAUTION" Symbol for "CONSULT INSTRUCTION FOR USE" Symbol for "CATALOGUE NUMBER"
- SYMBOL FOR EUROPEAN COMMUNITY AUTHORIZED REPRESENTATIVE Symbol for "DO NOT USE IF PACKAGE IS DAMAGE"
- Symbol for "KEEP OUT OF THE REACH OF CHILDREN" Symbol for "MANUFACTURER NAME & ADDRESS"
- Symbol for "TEMPERATURE LIMITATION" Symbol for "KEEP AWAY FROM SUNLIGHT" Symbol for "FLAMMABLE"

The material has been developed solely for professional dental use. Application should be carried out strictly according to the instruction for use. Liability cannot be accepted for damages resulting from failure to observe the instructions of the stipulated area of applications. The user is responsible for testing the material for its suitability and use for any purpose not explicitly stated in this instruction sheet. Description and data constitute no warranty of attributes and are not binding.