Forton MG ~ Kit Instructions

For small users and R&D, the system is also available in kit form. The sculptor kit consists of the Forton Liquid (VF-812) in a 5 gallon bucket (40 lbs) and the appropriate amount of dry resin and hardener for 8, 10 lb mixes, in pre-weighed plastic bags. The alpha gypsum component is available from distributors of the US Gypsum Co. (FGR-95). Additional materials such as fiber glass chopped strands and proper metal powders are also available when ordering the kit.
The starter kit consists of 1 lb dry resin, 22 g hardener, and 2 lbs of chopped fiberglass. Pre-weighed packages of metal powder are also available so that face mixes and back-up mixes are possible from this kit for product development and prototype purposes. Silica sands, calcium carbonate (marble dust) and colored aggregates can be used as fillers or to give surface texture and color when sandblasted or polished. The fillers are available at The Compleat Sculptor, Inc. (212) 367-7561 (Technical Support Hotline).

Mixing
The only equipment required is a good scale, a mixer blade (Jiffy or Shiffler type) and a high rpm electric or air drill. It is advisable to mix the materials in clean, plastic buckets properly sized for the volume of materials being mixed. Optional is a piece of insect screen to screen the face mix for lumps, chips, an to remove entrapped air.

Note: It is recommended to wear a NIOSH approved dust mask while weighing and mixing.

1. In one plastic bucket put the weighed Forton VF-812 liquid polymer. Typically no additional water is required. If pigments are used, they can be added to the VF-812 at this time. (A small amount of pigment is very effective, however it is impossible to determine the ending color until after the piece has been demolded and dried. It is possible to over-pigment the mix, in which case the material does not cure within the normal range of time and the material does not achieve its typical strength.
2. In the second dry plastic bucket, put the weighed gypsum, dry resin, and hardener. If metal powders, sands, aggregates or fillers (cab-o-sil) are used, they can be added in the same bucket. It is advisable to dry blend these materials either with your hand or a dry mixer blade with a high rpm drill to reduce clumping when mixed with the liquid.
3. The dry materials are then mixed into the bucket containing the liquid. Mix thoroughly with a high rpm drill using a shear type mixer. Typical mixing time is 1-2 minutes. When mixing metal powders, small amounts of clean water may be added during mixing if the slurry appears too thick or is setting too quickly. Prolonged mixing can accelerate the thickening rate of certain metal powders. If additional defoamer, accelerator or retarder is used, it can be added and mixed in at this time.
4. For face mixes and direct slurry casting, it is strongly recommended to pour the slurry through a screen into a clean plastic bucket. This removes air bubbles and clumps.