Proper Mixing of Plaster by Volume and Weight

1. Determine how much "mixed" plaster is needed (Volume)

2. Weigh half that volume of water (adding the water to plaster does not substantially increase the volume as the water is absorbed by the plaster and the air in the plaster is displaced).

3. Divide that water weight by the water to plaster ratio – typically .70

4. The result of 3 above will be the weight of the plaster needed

Note: as a check, the volume of plaster and water should be close to the same

5. Sprinkle plaster/gypsum into water until smooth mounds of plaster peak above the surface of water. Allow the mixture to sit undisturbed while the plaster soaks up the water, about 3 or 4 minutes.

6. Manual Mixing (not generally suitable for batches over 10 pounds) – using a spoon or wood trowel, mix from the bottom using a side to side motion. Circular motion will cause bubbles. Mix to the consistency of heavy cream.

   Electric Mixer – Use an electric drill with a Jiffy Mixer attachment. "Stir" at no more than 1750 RPM while holding the Jiffy Mixer at 15 degrees off vertical.

7. The mixing container should be solidly tapped or even dropped on the floor several times to help air bubbles rise to the top.

8. The plaster is ready to pour when mixing is complete. "Marking" is a way to determine when it is ready. It is the moment to pour when a finger is trailed over the surface of the plaster and a slight wake is left in the plaster.

9. Pouring should be done in a comfortably quick, smooth, steady manner directed towards the center of the base of the mold. Avoid allowing the slip to run down the side of the mold as "hard spots" may occur.

By Eye

1. Those with sufficient experience sometimes use a method called "Peaking" or "Island Method" whereby the plaster is sifted into the water until it forms a mountain of plaster in the water with the "peak" rising above the water surface.

2. Follow steps 6 through 9 above. Adapted from: http://www.clay-planet.com/ceramic_central/info/plasters.htm

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