

How to... Mix plaster and gypsum cement.

Mixing Instructions

Storage: Store plaster/gypsum in a warm, dry area, raised from the floor to avoid moisture absorption. The shelf life of all plaster/gypsum is limited but that life can be extended by storing in air-tight plastic containers.

1. Weigh proper amount of room temperature water in a clean container. (Warmer water will accelerate the setting time.)
2. Weigh proper amount of plaster/gypsum.
3. Sprinkle the plaster/gypsum into the water. (Never pour water into plaster/gypsum). As you near completion, small mounds of plaster will peak above the surface of the water. When all the plaster/gypsum has been added, allow the mixture to sit undisturbed while the plaster soaks up the water. (Several minutes).
4. **Manually:** It is possible to get a good mix by using a spoon or wood dowel. Mix slowly and steadily from the bottom, using a side to side motion. Stirring in a circular motion will introduce undesirable air bubbles into the mix. Consistency of final mix should be that of heavy dairy cream. (The "old timers" are sometimes seen "elbow deep in plaster" literally mixing by hand. This is a very dangerous method since plaster becomes extremely hot when setting, potentially resulting in severe burns.)

Electric Mixer: You can achieve a consistently good mix by using an electric drill with a Jiffy Mixer attachment. "Stir" at 1750 RPM while holding the Jiffy Mixer at 15 1/2 off vertical. This method is also quicker than the manual method discussed above.

Consistency and Setting Times		
USG Product	Recommended Consistency*	Approximate Setting Time
Ceramical	40	18 - 23 minutes
Duracal/Fastcast	26	25 - 35 minutes
Duramold	68	27 - 37 minutes
Hydrocal A-11	42	16 - 20 minutes
Hydrocal B-11	44	25 - 35 minutes
Hydrocal FGR 95	30	50 - 70 minutes
Hydrocal White	45	25 - 35 minutes
Hydroperm	100	12 - 19 minutes
Hydro-stone	32	17 - 20 minutes
Hydro-stone Super X	22	17 - 20 minutes
Hydro-stone TB	32	17 - 20 minutes
No. 1 Pottery	70	27 - 37 minutes
Puritan Pottery	66	27 - 37 minutes
Regular Casting	72	27 - 37 minutes
Regular Pottery	74	27 - 37 minutes
Statuary Hydrocal	40	25 - 35 minutes
Tuf-Cal - 20 Minute	50	17 - 22 minutes
Tuf-Cal - 30 Minute	50	27 - 35 minutes
Ultracal 30	38	25 - 35 minutes
White Art - 20 Minute	70	17 - 27 minutes
White Art - 30 Minute	70	27 - 37 minutes

* Parts of water by weight per 100 parts of material