

PLASTER MIXING INSTRUCTIONS

1. Plaster should be stored in a warm, dry place and always use the oldest plaster first.
2. Make uniformity doubly sure by weighing both water and plaster accurately.
3. Use an alarm-type interval timer to measure soaking and mixing time.
4. Use fit-to-drink water, always at the same temperature, for mixing.
5. Mix with a high-speed mechanical mixer and a mixing bucket with the top diameter equal to the height, and the bottom diameter equal to two-thirds the height. Keep buckets and mixing equipment clean at all times.
6. If mixing by hand, stir into water slowly and evenly.
7. Soak plaster 2-4 minutes before mixing. Then mix as required for 2-5 minutes, obtaining a creamy slurry. Longer mixing promotes greater strength.
8. Always add plaster to water, never the reverse.
9. Be sure to dry molds thoroughly before using them, generally 24 hours at <100°F.
10. Avoid carelessness and unnecessary abuse in handling and using molds.
11. 1 Pint of water = 1+ lb. and 1 Gallon of water = 8.345 lbs.

TYPICAL PHYSICAL PROPERTIES

	Use Consistency (parts water by weight to 100 parts plaster)	Hand Mix Setting Time (minutes)	Maximum Setting Setting Expansion (%)	Dry Compressive Strength (psi)
USG POTTERY	74	27-37	0.190	1,800
USG No. 1	70	27-37	0.210	2,000
ULTRACAL	38	25-35	0.080	6,000
HYDRO-STONE	32	17-20	0.240	10,000
CERAMI-CAL	40	18-23	0.165	6,500

Determining the amount of plaster needed for a volume

1 quart of water + 2.75 lbs. of plaster makes 80 cubic inches of mixed plaster.

Cubic Inches

----- = Number of quarts required
80

To determine Volume

Rectangles : Cubic Volume equals - Length x Width x Height in inches

Cylinders : Cubic Volume equals - R² (radius squared) x Height in inches