

# CERAMICAL<sup>®</sup> Gypsum Cement



- For use in pressing clayware.
- Low absorption, high strength.
- Resists abrasion and wear.
- Specifically for use with the RAM<sup>®</sup> automatic clay-forming process.

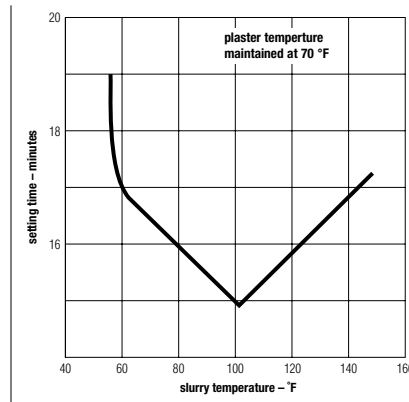
Technical Properties*	English	Metric
Use Consistency (parts of water by weight per 100 parts plaster )	40	40
1 Hr. Compressive Strength	3,000 psi	20.6 MPa
Dry Compressive Strength	6,000 psi	40.9 MPa
1 Hr. Modulus of Rupture	825 psi	5.7 MPa
Dry Modulus of Rupture	955 psi	6.6 MPa
Maximum Setting Expansion (%)	.13%	.13%
Density Wet	115.1 lb/ft <sup>3</sup>	1.84 g/cc
Dry	96.5 lb/ft <sup>3</sup>	1.55 g/cc
Set Time (Machine Mix)	18-23 min.	18-23 min.

\*All results are tested at use consistency of 40.

## General Directions and Guidelines

### Preparing the Mix

Use potable water at temperatures between 70° and 100° F (21° and 38° C). Since variations in slurry (the plaster and water mixture) temperature produce variations in setting time, it is important to keep both the plaster and water in a stable temperature environment prior to use. The higher the temperature of the water, the shorter the set time. See the graph below.



Weigh both the CERAMICAL<sup>®</sup> and water for each mix. With CERAMICAL, the best results are obtained for standard RAM working dies when a 40-consistency mixture is used (40 parts water to 100 parts CERAMICAL by weight). Less water will increase the strength and hardness of the working die, but will decrease permeability. More water will yield a weaker and more permeable die or mold.

### Soaking

Sift or strew the plaster into water slowly and evenly. Do not drop handfuls of plaster directly into the water. Allow to soak undisturbed for 2-5 minutes. The plaster should be fully dispersed in the water prior to mixing. Small batches require less soaking than large batches.

### Mixing

Mixing the plaster slurry is one of the most important steps in producing plaster molds with maximum strength, absorption, hardness, and other important properties.

The CERAMICAL and water should be mixed mechanically with a high-speed (1750 rpm) propeller-type mixer for about 10 minutes. The slurry should be poured within two or three minutes after mixing.

### Pouring

To prevent air entrainment and provide a uniform, smooth surface, careful pouring of the plaster slurry is necessary. Agitation of the filled case mold is a further step used to prevent air at or near the mold surface. Whenever possible, the plaster slurry should be poured carefully in the deepest area so the slurry flows across the surface of the case mold.

Pouring a large amount of slurry directly on the face of the case mold may result in slight densification of the plaster mold at the point where it strikes the surface of the case. This produces a hard spot, giving uneven absorption.

**Purging**

CERAMICAL hardens and heats rapidly after the initial set. The purging operation should be started at a 23° F (-5° C) temperature rise over the starting temperature. For complete details on this patented process, contact RAM, Inc., 1091 Stimmel Rd., Columbus, OH 43223, (614) 443-4634.

**Storage**

Keep in a dry, stable environment indoors. Do not stack more than 2 pallets high. Keep from drafts. Rotate stock. Shelf life = 90 days.

**Warning**

When mixed with water, plaster in these products hardens and then slowly becomes hot. DO NOT attempt to make a cast enclosing any part of the body using this material. Failure to follow these instructions can cause severe burns that may require surgical removal of affected tissue. Dust from products

may cause eye, skin, nose, throat, or respiratory irritation. Use eye, skin, and respiratory protection in accordance with good industrial hygiene practices. Read MSDS of product for specific details. Product safety information: 800-507-8899.

**KEEP OUT OF REACH OF CHILDREN.**

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