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

<table>
<thead>
<tr>
<th>Use Consistency (parts water by weight to 100 parts plaster)</th>
<th>Hand Mix Setting Time (minutes)</th>
<th>Maximum Setting Expansion (%)</th>
<th>Dry Compressive Strength (psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USG POTTERY</td>
<td>74</td>
<td>27-37</td>
<td>0.190</td>
</tr>
<tr>
<td>USG No. 1</td>
<td>70</td>
<td>27-37</td>
<td>0.210</td>
</tr>
<tr>
<td>ULTRACAL</td>
<td>38</td>
<td>25-35</td>
<td>0.080</td>
</tr>
<tr>
<td>HYDRO-STONE</td>
<td>32</td>
<td>17-20</td>
<td>0.240</td>
</tr>
<tr>
<td>CERAMI-CAL</td>
<td>40</td>
<td>18-23</td>
<td>0.165</td>
</tr>
</tbody>
</table>

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 - $R^2$ (radius squared) x Height in inches