

Sample

4. (a) Samples of oxychloride cement for test shall be taken at the mixer or mixing box immediately after completion of the mixing and shall be representative of the entire batch.

(b) Samples from a mechanical mixer shall be taken from the first discharge of the mixer.

(c) Samples of batches mixed by hand in a mixing box shall consist of approximately equal portions taken from not less than six points uniformly distributed over the entire batch. These portions shall be combined and mixed to form a single sample for test.

(d) The sample thus obtained shall be transported not more than a few feet from the working area to the place of performing the test and, to counteract segregation, shall be mixed in the container with a shovel or scoop until it is uniform in appearance before testing for yield.

Procedure

5. Fill the tared measure with the

sample of oxychloride cement, rod thoroughly to eliminate air bubbles, and strike off the excess cement with a straightedge. Weigh the filled measure and determine the net weight of cement, W .

Calculation

6. Calculate the area covered, in square feet per 100 lb of dry mix, as follows:

$$A = \frac{1200f(1 + 8.357\rho)}{TW}$$

where:

A = area covered, in square feet per 100 lb of dry mix,

f = volume factor for the measure used,

W = net weight of cement required to fill the measure,

T = thickness in inches to which the cement is to be placed,

γ = gauging ratio in gallons per pound of dry mix, and

ρ = density of the gauging solution in grams per cubic centimeter.

Standard Method of Test for

YIELD OF MAGNESIUM OXYCHLORIDE CEMENT (FIELD TEST)¹



ASTM Designation: C 388 - 58

ADOPTED, 1958.²

This Standard of the American Society for Testing Materials is issued under the fixed designation C 388; the final number indicates the year of original adoption as standard or, in the case of revision, the year of last revision.

Scope

1. This method of test covers a procedure for determining, under field conditions, the area that will be covered by a given weight of magnesium oxychloride composition.

Apparatus

2. The apparatus shall consist of the following:

(a) *Balance*.—A balance or scale sensitive to 0.5 per cent of the weight of the sample to be weighed.

(b) *Tamping Rod*.—A straight $\frac{5}{8}$ -in. round metal rod, approximately 12 in. in length and tapered for a distance of 1 in. to a spherically shaped end having a radius of approximately $\frac{1}{4}$ inch.

(c) *Measure*.—A metal measure, cy-

lindrical in form and preferably provided with handles. It shall be watertight, with the top and bottom true and even, preferably machined to accurate dimensions on the inside, and of sufficient rigidity to retain its form under rough usage. The measure required shall have a capacity of 0.1 cu ft and shall conform to the following dimensional requirements:

Capacity, cu ft	Inside Diameter, in.	Inside Height, in.	Thickness of Metal, U. S. Gage
0.1	6.00	6.10	No. 10 to No. 12

Calibration of Measure

3. The measure shall be calibrated by accurately determining the weight of water at 62 F (16.7 C) required to fill it. The factor, f , shall be obtained by dividing the unit weight of water at 62 F (16.7 C) (62.355 lb per cu ft) by the weight of water at 62 F (16.7 C) required to fill the measure.

¹ Under the standardization procedure of the Society, this method is under the jurisdiction of the ASTM Committee C-2 on Magnesium Oxychloride and Magnesium Oxy-sulfate Cements.

² Prior to adoption as standard, this method was published as tentative from 1956 to 1958.