

State of Nevada
Department of Transportation
Materials and Testing Division

STANDARD METHOD OF TEST FOR MAKING AND CURING
GROUT TEST SPECIMENS IN THE FIELD

SCOPE

This method covers the procedures for making and curing specimens of masonry grout in the field for compressive strength tests. Specimens fabricated in the field are transported to a laboratory for completion of curing and testing for compressive strength.

A. APPARATUS

1. Clean nonabsorbent base approximately 3' x 3' square.
2. Puddling stick - one inch by two inch (1" x 2") cross section and a six inch (6") minimum length.
3. Small tools - Tools and items such as shovels, pails, trowels and scoops.
4. Sampling and mixing receptacle - A suitable pan, wheelbarrow, or flat, clean nonabsorbent mixing board of sufficient capacity to allow each mixing by shovel or trowel of the entire sample.

B. SAMPLING GROUT

Samples of grout for test specimens shall be taken in accordance with Nevada Test Method T425. Location of the work represented by the test samples shall be noted in the job records and on the transmittals.

C. PROCEDURE

1. Place of molding - Specimens shall be molded at the place where they are going to be stored during the first 48 hours. (Note: This storage area must be temperature controlled as indicated in Section E, Curing Specimens.)
2. Molds - Place masonry units having the same moisture condition as those being laid on a nonabsorptive base to form a space approximately 3" x 3" x 6" high (twice as high as it is wide). Line the space with permeable paper (such as paper towel) or porous separator (not over 0.01 in. thick) so that the water may pass through the liner to the masonry unit.
3. Molding grout specimens - Thoroughly mix or agitate the grout to obtain a fully representative mix and place into the mold, using a scoop, in two layers of approximately equal volume. Puddle each layer with a one inch by two inch puddling stick to eliminate air bubbles. Level off specimen with a straightedge, cover immediately, and keep damp until taken to the laboratory.

D. NUMBER OF SPECIMENS

A minimum of three specimens shall be made for each test. These will be used to determine the 28-day strength. Additional specimens may be made for informational purposes if desired.

E. CURING SPECIMENS

During the first 48 hours after molding, allow the specimens to cure undisturbed under conditions that will prevent the loss of moisture from the specimens and that will provide protection from extremes in temperature.

F. MARKING AND TRANSPORTING

1. Use transmittal form #020-017 - "Transmittal for Concrete Samples."
2. Pack specimens in protective containers to prevent damage and loss of moisture during transit.

G. DETERMINATION OF COMPRESSIVE STRENGTH

Specimen strengths shall be determined in accordance with Test Method No. Nev. T475.

The average strength of the three 28-day specimens shall be computed and reported as the result of the strength test.

References

ASTM C31
ACI 531
UBC Standard No. 24-23
Nev. Test Method No. T425
Nev. Test Method No. T475