

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
Transportation Laboratory
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METHOD OF TEST FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS

A. SCOPE

This test method describes the procedure for conducting compression tests of cylindrical concrete specimens such as molded cylinders and drilled cores. It is limited to concrete having density in excess of 50 lb/ft³.

B. PROCEDURE

Conduct the test in accordance with the American Society for Testing and Materials (ASTM) C39/C39M-18 except for the following:

1. Replace the first paragraph of Section 5.4 with:

The individual who tests concrete cylinders for acceptance testing must be qualified under the Department's Independent Assurance Program (IAP). This individual must hold a current Department issued certification for the appropriate test methods.

2. Delete Note 1 in Section 5.4.
3. Replace the second sentence in the first paragraph of Section 7.2 with:

The ends of compression test specimens that are not plane within 0.050 mm [0.002 in.] shall be sawed or ground to meet that tolerance, or capped with sulfur mortar in accordance with Practice C617/C617M- 15.

4. Add to the end of the first paragraph in Section 11.1.1:

Single-operator precision does not apply to 4 in. x 8 in. cylinders made under field conditions.

C. REPORTING OF RESULTS

When required by the contract documents, submit test results electronically in accordance with the DIME format and guidance documents found at the following link:

<<https://dime.dot.ca.gov/index.php?r=help/submittestresult>>

D. HEALTH AND SAFETY

It is the responsibility of the user of this test method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use. Prior to handling, testing or disposing of any materials, testers must be knowledgeable about safe laboratory practices, hazards and exposure, chemical procurement and storage, and personal protective apparel and equipment.

Refer to the Safety Manual for your Laboratory.

End of Text
(California Test 521 contains 2 pages)