
Standard Method of Test for Compressive Strength of Concrete Using Portions of Beams Broken in Flexure

AASHTO Designation: T 140-20 (2024)

Technically Revised: 2020

Reviewed but Not Updated: 2024

Editorially Revised: 2024

Technical Subcommittee: 3c, Hardened Concrete



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1. SCOPE

- 1.1. This method covers the determination of compressive strength of concrete, using portions of beams broken in flexure for test specimens.
- Note 1**—This method was originally developed to cover testing portions of beams having a square cross section as “modified cubes” and former versions of this procedure were subtitled “Modified Cube Method.” This terminology no longer applies because beams of rectangular cross section may be tested as provided under Section 6.1.
- Note 2**—For methods of making flexural test specimens from which the specimens for this test method may be obtained, refer to R 39M/R 39, R 100M/R 100, and T 24M/T 24.
- Note 3**—For methods of performing the flexural strength test, refer to T 97M/T 97 and T 177.
- 1.2. The values stated in inch-pound units are to be regarded as the standard.
- 1.3. *This standard does not purport to address the safety concerns associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*
- 1.4. *The quality of the results produced by this standard is dependent on the competence of the personnel performing the procedure and the capability, calibration, and maintenance of the equipment used. Agencies that meet the criteria of R 18 are generally considered capable of competent and objective testing/sampling/inspection/etc. Users of this standard are cautioned that compliance with R 18 alone does not completely assure reliable results. Reliable results depend on many factors; following the suggestions of R 18 or some similar acceptable guideline provides a means of evaluating and controlling some of those factors.*

2. REFERENCED DOCUMENTS

- 2.1. *AASHTO Standards:*
- R 18, Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories
 - R 39M/R 39, Making and Curing Concrete Test Specimens in the Laboratory
 - R 100M/R 100, Making and Curing Concrete Test Specimens in the Field
 - T 22M/T 22, Compressive Strength of Cylindrical Concrete Specimens
 - T 24M/T 24, Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
 - T 97M/T 97, Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)