

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
MATERIALS CONTROL, SOILS AND TESTING DIVISION
MATERIALS PROCEDURE

CURING CONCRETE TEST SPECIMENS IN THE FIELD

1.0 PURPOSE

- 1.1 The purpose of this procedure is to modify the curing requirements for cylindrical and prismatic specimens which have been in the field.

2.0 BACKGROUND

- 2.1 The Division's Standard Specifications (501.4 and 601.4) require that the making and curing of concrete test specimens in the field be done in accordance with AASHTO Designation T 23.
- 2.2 Section 9 of AASHTO Designation T 23 covers curing of the test specimens until time of test.

3.0 APPLICABLE DOCUMENT

- 3.1 AASHTO Designation T 23

4.0 PROCEDURE

- 4.1 Curing of cylindrical and prismatic specimens made in the field shall be in accordance with Section 9 of AASHTO Designation T 23 with modifications as follows.

- 4.1.1 Delete 9.2.1 and substitute the following:

9.2.1 Initial Curing

- 9.2.1.1 Initial Curing in Air - During the initial 24 ± 8 hours after molding, the temperature immediately adjacent to the specimens shall be maintained in the range of 16 to 27° C. Loss of moisture from the specimens shall be prevented (Note 3).

9.2.1.2 Initial Curing of Cylinders in Water - Immediately after molding, immerse the specimens in water at 16 to 27°C for 24 ± 8 hours. Molds made from paper or other fibers which expand when immersed in water must be enclosed in a watertight envelope such as a plastic bag or other suitable impervious material. Reusable or plastic single use molds may be immersed directly in the bath, provided the tops can be sealed with a watertight cap.

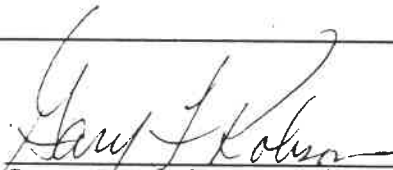
4.1.2 Delete 9.3.2.1

4.1.3 Delete 9.3.3 and substitute the following:

9.3.3 Standard Curing at Remote Sites - Specimens to be stored at a remote site and shipped to a laboratory for test or to be tested at the remote site shall be cured in accordance with 9.2.2.1, except that a temperature range of 16 to 27°C shall be maintained for storage of specimens.

Delete 9.3.3.1 and substitute the following:

9.3.3.1 Beam specimens to be stored and tested at remote sites shall be cured in accordance with 9.2.2 except that for a minimum of 20 hours prior to testing they shall be stored in saturated lime water at 16 to 27°C. Drying of the surfaces of the beams shall be prevented between removal from the lime water and completion of testing.



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