

State of Nevada
Department of Transportation
Materials Division

**METHOD OF TEST FOR MEASURING TEMPERATURE OF
FRESH CONCRETE**

SCOPE

This test method describes the procedure for measuring the temperature of fresh concrete.

EQUIPMENT

1. Thermometer, glass or metal, liquid or digital, capable of accurately measuring from 0°C to 50°C (30°F to 120° F) and allows for 75 mm (3 in.) or more of immersion into the fresh concrete.
2. Container, shall be large enough to provide 75 mm (3 in.) of concrete coverage in all directions around the sensor of the thermometer and be at least three times the nominal maximum size of the coarse aggregate.

CALIBRATION

The thermometer shall be calibrated annually or whenever there is a question of accuracy.

SAMPLING

Obtain a representative sample of fresh concrete per Test Method Nev. T425.

PROCEDURE

1. This test shall be started within 5 minutes of obtaining a representative sample.
2. Submerge the temperature sensing portion of the thermometer into the fresh concrete a minimum of 75mm (3 in.). Gently press the surface of the fresh concrete around the thermometer to close any voids created during the insertion of the thermometer and to prevent the ambient air temperature from affecting the reading.
3. Leave the thermometer in the fresh concrete for a minimum of 2 minutes but no more than 5 minutes, read and record the temperature of the fresh concrete to the nearest 0.5° C (1° F). Do not remove the thermometer from the fresh concrete while reading the temperature.

REPORT

Report the temperature to the nearest 0.5° C (1° F). Results should be documented on NDOT form 020-017.