

2401 - WATER FOR USE WITH CEMENT

SECTION 2401

WATER FOR USE WITH CEMENT

2401.1 DESCRIPTION

This specification covers water for use with cement.

2401.2 REQUIREMENTS

a. Source. Use only water from sources approved by the Engineer for cement. Approval of a water source may be withdrawn during construction if changes in quality occur.

b. Purity.

- (1) Do not use water containing injurious quantities of oil, alkali, vegetable matter and salt.
- (2) The water for use in cement can not contain more than 0.25% solids by mass. If the specific conductance is less than 150 siemens per cm., the total solids content requirement will be waived.
- (3) Water for use in prestressed concrete must have less than 400 parts per million of chlorides when calculated as sodium chloride and less than 400 parts per million sulfates when calculated as sodium sulfate.

c. Mortar Strength and Time of Set. Mortar prepared with water submitted for approval can show no marked change in time of set and have no more than 10% reduction in mortar strength when compared to mortar made with water from an approved source.

2401.3 TEST METHODS

Requirement	Test Method
Specific Conductance	ASTM D 1125
Sodium Chloride	ASTM D 512
Sodium Sulfate	ASTM D 516
Total Solids	Standard Methods for Examination of Water and Wastewater, American Public Health Association, Inc.
Time of Set (Gillmore)	ASTM C 266
Mortar Strength	ASTM C 109

2401.4 PREQUALIFICATION

None Required.

2401.5 BASIS OF ACCEPTANCE

- a.** Acceptance of all water for prestressed concrete will be based on the results of tests conducted at MRC.
- b.** Water for use with cement in other applications will be accepted for use if it is obtained from a city water supply that is approved for domestic use by the Kansas Department of Health and Environment (KDHE). Water from other sources will be tested before acceptance for use.