



Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

KEVIN J. THIBAUT, P.E.
SECRETARY

December 20, 2021

Khoa Nguyen
Director, Office of Technical Services
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312

Re: State Specifications Office
Section: **923**
Proposed Specification: **9230300 Water for Concrete.**

Dear Mr. Nguyen:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Vimal Patel to replace the ASTM D512 with SM 4500 CL B and SM 4110 B in Tables 923-1 and 923-2 in the Standard Specification.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to daniel.strickland@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at 850-414-4130.

Sincerely,

Signature on file

Daniel Strickland, P.E.
State Specifications Engineer

DS/dh

Attachment

cc: Florida Transportation Builders' Assoc.
State Construction Engineer

WATER FOR CONCRETE.**(REV 10-23-21)**

ARTICLE 923-3 is deleted and the following substituted:

923-3 Chemical Requirements.

923-3.1 Testing: All chemical analysis shall be performed in accordance with the test methods listed in Tables 923-1 and 923-2 or equivalent Standard Methods for the Examination of Water and Wastewater (SM). Inorganic Anions (Chlorides and Sulfates) ~~may~~ **shall** be determined simultaneously using SM 4110B Ion Chromatography or separately using SM 4500 Cl⁻ **B** and SM 4500 SO₄²⁻ **E**. ~~in lieu of ASTM D512 and~~ ASTM D516 **may be used as an alternative method for sulfates**. The test method used shall be included in the concrete producer report.

923-3.2 Recycled and Reclaimed Water: Recycled and reclaimed water shall be tested before use and shall not exceed the limits in Table 923-1:

Chemical Test	Test Method	Maximum (%)
Total Solids	SM 2540 B	5.00
Total Chlorides as Cl ⁻	ASTM D512 SM 4500 Cl⁻ B or SM 4110 B	0.05
Total Sulfates as SO ₄ ²⁻	ASTM D516	0.30

923-3.3 Open Bodies of Water and Well Water: Open bodies of water and well water shall be tested before use and shall not exceed the limits of Table 923-2:

Chemical Test	Test Method	Maximum (%)
Alkalinity Calculated in terms of Calcium Carbonate	SM 2320 B	0.05
Total Organic Solids	SM 2540 E	0.05
Total Inorganic Solids	SM 2540 E	0.08
Total Chlorides as Cl ⁻	ASTM D512 SM 4500 Cl⁻ B or SM 4110 B	0.05

WATER FOR CONCRETE.**(REV 10-23-21)**

ARTICLE 923-3 is deleted and the following substituted:

923-3 Chemical Requirements.

923-3.1 Testing: All chemical analysis shall be performed in accordance with the test methods listed in Tables 923-1 and 923-2 or equivalent Standard Methods for the Examination of Water and Wastewater (SM). Inorganic Anions (Chlorides and Sulfates) shall be determined simultaneously using SM 4110B Ion Chromatography or separately using SM 4500 Cl⁻ B and SM 4500 SO₄²⁻ E. ASTM D516 may be used as an alternative method for sulfates. The test method used shall be included in the concrete producer report.

923-3.2 Recycled and Reclaimed Water: Recycled and reclaimed water shall be tested before use and shall not exceed the limits in Table 923-1:

Table 923-1		
Chemical Test	Test Method	Maximum (%)
Total Solids	SM 2540 B	5.00
Total Chlorides as Cl ⁻	SM 4500 Cl ⁻ B or SM 4110 B	0.05
Total Sulfates as SO ₄ ²⁻	ASTM D516	0.30

923-3.3 Open Bodies of Water and Well Water: Open bodies of water and well water shall be tested before use and shall not exceed the limits of Table 923-2:

Table 923-2		
Chemical Test	Test Method	Maximum (%)
Alkalinity Calculated in terms of Calcium Carbonate	SM 2320 B	0.05
Total Organic Solids	SM 2540 E	0.05
Total Inorganic Solids	SM 2540 E	0.08
Total Chlorides as Cl ⁻	SM 4500 Cl ⁻ B or SM 4110 B	0.05