



QESTLab

United States Test Methods

Electronic Worksheets are screens that conform to an ASTM, AASHTO, State Authority or other test method. They collect all the information required by the method, perform calculations and checks according to the method.

QESTLab™ is not restricted to the methods detailed in this list. The Electronic Worksheets outlined here are those that have already been developed for the QESTLab™ system.

New Electronic Worksheets can be quickly developed as a need arises. If you are interested in any test methods not shown in this list, please contact Spectra QEST at www.spectraquest.com.

This list of test methods is based on QESTLab v3.1

American Association of State Highway and Transportation Officials (AASHTO)

- AASHTO T 11 - 05, Finer than 75µm
- AASHTO T 19 - 00 Bulk Density ("Unit Weight") and Voids
- AASHTO T 21 - 05 Organic Impurities
- AASHTO T 27 - 06 Sieve Analysis
- AASHTO T 27 - 06 Sieve Analysis with Wash
- AASHTO T 30 - 07 Mechanical Size Analysis of Extracted Aggregate
- AASHTO T 84 - 08 Specific Gravity of Fine Aggregate
- AASHTO T 85 - 08 Specific Gravity of Coarse Aggregate
- AASHTO T 88 - 00 Particle Size Analysis of Soils
- AASHTO T 89 - 02 Atterberg Limits
- AASHTO T 90 - 00 Atterberg Limits
- AASHTO T 96 - 02 Los Angeles Abrasion Value
- AASHTO T 99 - 01 Proctor - Standard
- AASHTO T 100 - 06 Specific Gravity of Soils
- AASHTO T 104 - 99 Sodium Sulfate Soundness
- AASHTO T 112 - 00 Clay Lumps and Friable Particles
- AASHTO T 113 - 06 Chert Particles
- AASHTO T 113 - 06 Lightweight Particles
- AASHTO T 164 - 06 Asphalt Content
- AASHTO T 166 - 07 Bulk Specific Gravity of Asphalt
- AASHTO T 166 - 07 Bulk Specific Gravity of Asphalt
- AASHTO T 166 - 07 Bulk Specific Gravity of Asphalt (Gyratory)
- AASHTO T 166 - 07 Bulk Specific Gravity of Asphalt (Marshall)
- AASHTO T 176 - 08 Sand Equivalent
- AASHTO T 180 - 01 Proctor - Modified
- AASHTO T 190 - 02 R Value of Compacted Soils
- AASHTO T 193 - 99 California Bearing Ratio
- AASHTO T 196 - 05 Air Content Of Concrete
- AASHTO T 209 - 05 Rice Specific Gravity
- AASHTO T 245 - 97 Marshall Stability
- AASHTO T 246 - 07 Hveem Stability
- AASHTO T 255 - 00 Moisture Content

AASHTO T 269 - 97 Air Voids
AASHTO T 275 - 07 Bulk SG of Coated Specimens
AASHTO T 283 - 07 Moisture Susceptibility
AASHTO T 304 - 08 Uncompacted Void Content
AASHTO T 308 - 05 Asphalt Binder Content by Ignition Method
AASHTO T 330 - 07* Methylene Blue Value
AASHTO TP 57 - 04* Methylene Blue Value
AASHTO TP 63 - 03 APA Rut Test

American Public Health Association (APHA)

APHA 2130B * Turbidity In Water
APHA 2540B * Total Solids
APHA 2540C * Total Dissolved Solids
APHA 2540D * Non Filterable Residue
APHA 4500H * pH Determination In Water

ASTM International

ASTM C 29 - 07 Bulk Density ("Unit Weight") and Voids
ASTM C 39 - 05 Concrete Sample
ASTM C 39 - 05 Grout Sample
ASTM C 39 - 05 Mortar Sample
ASTM C 39 - 05 / C 78 - 07 / C 109 - 07 / C 1019 - 07 Concrete Samples
ASTM C 40 - 04 Organic Impurities
ASTM C 42 - 04 Concrete Sample
ASTM C 78 - 07 Concrete Sample
ASTM C 88 - 05 Sodium Sulfate Soundness
ASTM C 109 - 07 Mortar Sample
ASTM C 117 - 05 Finer than 75µm
ASTM C 123 - 03 Chert Particles
ASTM C 123 - 03 Lightweight Particles
ASTM C 123 - 03 * Lightweight Particles in Aggregate
ASTM C 127 - 07 Specific Gravity of Coarse Aggregate
ASTM C 128 - 07 Specific Gravity of Fine Aggregate
ASTM C 131 - 06 Los Angeles Abrasion Value
ASTM C 136 - 06 Sieve Analysis
ASTM C 136 - 06 Sieve Analysis with Wash (Metric)
ASTM C 136 - 06 MDOT Sieve Analysis with Wash and Dust
ASTM C 136 - 06, ASTM C 117 - 04, Sieve Analysis with Wash
ASTM C 142 - 04 Clay Lumps and Friable Particles
ASTM C 173/C 173M - 07 Air Content Of Concrete
ASTM C 174 - 06 Drilled Core Thickness
ASTM C 495 - 07 Concrete Sample (Light Weight)
ASTM C 496 - 04 Concrete Sample
ASTM C 535 - 03 LA Abrasion
ASTM C 566 - 97 Moisture Content
ASTM C 805 - 02 Concrete Rebound
ASTM C 1019 - 07 Grout Sample
ASTM C 1074 - 04 Concrete Strength Estimation (Maturity)
ASTM C 1252 - 06 Uncompacted Void Content
ASTM C 1293 - 06 * Alkali Reactivity
ASTM C 1293 - 06 * Alkali Reactivity (CSIRO Modified)
ASTM C 1293 - 06 * Concrete Prisms Test for AAR
ASTM C 1314 - 07 Masonry Prism Sample

ASTM C 1604 - 05 Concrete Sample
ASTM D 5 - 06 Penetration of Bituminous Materials
ASTM D 36 - 06 Softening Point of Bitumen
ASTM D 244-21 1-D Asphalt Residue (Evaporation Only)
ASTM D 422 - 07 Particle Size Analysis of Soils
ASTM D 558 - 04 Testing of Soil-Cement Mixtures
ASTM D 559 - 03, ASTM D 1633 - 07 Compressive Strength of Soil-Cement Cylinders
ASTM D 698 - 07 Proctor - Standard
ASTM D 854 - 06 Specific Gravity of Soils
ASTM D 1140 - 06 Materials Finer Than 75µm Sieve
ASTM D 1188 - 07 Bulk SG of Coated Specimens
ASTM D 1556 - 07 Field Density Sand Replacement
ASTM D 1557 - 07 Proctor - Modified
ASTM D 1559 - 89 Marshall Stability
ASTM D 1560 - 05 Hveem Stability
ASTM D 1632 - 07, ASTM D 1633 - 00 Compressive Strength of Soil-Cement Cylinders
ASTM D 1633 - 00, ASTM D 1632 - 07 Compressive Strength of Soil-Cement Cylinders
ASTM D 1883 - 07 California Bearing Ratio
ASTM D 2041 - 03 Max Specific Gravity and Density of Asphalt
ASTM D 2041 - 03a RICE Specific Gravity
ASTM D 2166 - 06 Unconfined Compressive Strength of Cohesive Soil
ASTM D 2170 - 06 Kinematic Viscosity of Asphalts
ASTM D 2172 - 05 Asphalt Content
ASTM D 2172 - 05 Bitumen Content
ASTM D 2172 - 05 MDOT Asphalt Content
ASTM D 2172 - 05, AS 1141.11 Aggregate Grading
ASTM D 2196 - 05 Method A Brookfield Viscosity of Emulsion (Method A & Torque)
ASTM D 2216 - 05 Moisture Content and Dry Density (Imperial and Metric)
ASTM D 2419 - 02 Sand Equivalent
ASTM D 2434 - 06 Permeability of Granular Soils (Constant Head)
ASTM D 2435 - 04 Load Deformation Properties
ASTM D 2435 - 04 One-Dimensional Consolidation (Loading, Reloading)
ASTM D 2435 - 04 Time Deformation Properties
ASTM D 2487 - 06 Unified Soil Classification System
ASTM D 2488 - 06 Visual-Manual Identification of Soils
ASTM D 2726 - 05a Bulk Specific Gravity of Asphalt (and Gyrotory, Marshall)
ASTM D 2726 - 05a, 3203 - 05 Bulk Specific Gravity and Air Voids of Asphalt (Metric)
ASTM D 2844 - 07 R Value of Compacted Soils
ASTM D 2922 - 05, 3017 - 05 Nuclear Field Density
ASTM D 2950 - 05 Asphalt Density by Nuclear Method
ASTM D 2974 - 07 Moisture, Ash and Organic Content
ASTM D 3017 - 05, D 2922 - 05 Nuclear Field Density
ASTM D 3203 - 05 Air Voids
ASTM D 3549 - 03, D 6927 - 06, D 6926 - 04, D 2726 - 05a Height, Marshall Stability and Flow of Compacted Asphalt
ASTM D 4318 - 05 Atterberg Limits
ASTM D 4402 - 06 Brookfield Viscosity of Asphalt (& Torque)
ASTM D 4546 - 03 Swell (CCBD)
ASTM D 4791 - 05 Flat and Elongated Particles
ASTM D 4867 - 06 Moisture Susceptibility (also Metric)
ASTM D 5084 - 03 Hydraulic Conductivity (Remolded and Undisturbed, Method C only)
ASTM D 5444 - 05 Mechanical Size Analysis of Extracted Aggregate
ASTM D 5821 - 06 * Fractured Faces

ASTM D 6307 - 05 Asphalt Content (incl. Ignition Oven Calibration)
ASTM D 6752 - 03 Bulk SG & Density of Sealed Specimens
ASTM D 6926 - 04, ASTM D 6927 - 06, D 3549 - 03, D 2726 - 05a Height, Marshall Stability and Flow of Compacted Asphalt
ASTM D 6927 - 06, D 6926 - 04, D 3549 - 03, D 2726 - 05a Height, Marshall Stability and Flow of Compacted Asphalt
ASTM F 1869 - 04 Moisture Vapor Emission Rate
ASTM PS 131 - 01 Bulk SG of Coated Specimens

American Water Works Association (AWWA)

AWWA 3500, 4500E, 4500C-B, 2540C * Water Soluble Salt Analysis

Minnesota Department of Transport (MnDOT)

MnDOT 1205 - 05 Sieve Analysis with Wash
MnDOT 1203 - 05 Mechanical Size Analysis of Extracted Aggregate
MnDOT 1204 - 02 Specific Gravity of Coarse Aggregate
MnDOT 1205 - 02 Specific Gravity of Fine Aggregate
MnDOT 1206 - 00 Uncompacted Void Content
MnDOT 1207 - 05 Chert Particles
MnDOT 1207 - 05 Lightweight Particles
MnDOT 1209 Spall Lithological Summary
MnDOT 1210 - 05 LA Abrasion
MnDOT 1211 - 05 Bulk Density ("Unit Weight") and Voids
MnDOT 1212 - 00 Organic Impurities
MnDOT 1215 - 00 Sand Equivalent
MnDOT 1307 - 95 R Value of Compacted Soils
MnDOT 1805 - 02 Marshall Stability
MnDOT 1806 - 05 Bulk Specific Gravity of Asphalt
MnDOT 1806 - 05 Bulk Specific Gravity of Asphalt (Gyratory)
MnDOT 1806 - 05 Bulk Specific Gravity of Asphalt (Marshall)
MnDOT 1807 - 01 Rice Specific Gravity
MnDOT 1808 - 00 Air Voids
MnDOT 1816 - 03 Bulk Specific Gravity Using Corelok
MnDOT 1852 - 05 Asphalt Content by Centrifuge Extraction
MnDOT 1853 - 07 Asphalt Binder Content by Ignition Method

Nevada Department of Transport (NDOT)

NDOT T 101E Harvard Miniature
NDOT T 111 - 00 Specific Gravity of Coarse Aggregate
NDOT T 115 - 02 R Value of Compacted Soils
NDOT T 206 - 05 Sieve Analysis
NDOT T 210/T 211/T 212 - 00 Atterberg Limits
NDOT T 227 - 02 Sand Equivalent
NDOT T 228 * Cleanness Value
NDOT T 230 * Fractured Faces
NDOT T 233 * Los Angeles Value
NDOT T 324 - 05 RICE Specific Gravity
NDOT T 333 - 05a Bulk Specific Gravity of Asphalt
NDOT T 341 - 97 Moisture Susceptibility
NDOT T 431 - 07 Air Content Of Concrete
NDOT T 470 - 99 Sodium Sulfate Soundness
NDOT T 485 * Los Angeles Value
NDOT T 724 - 06 Asphalt Content



NDOT T 761 - 05 Asphalt Content
NDOT T 761 - 05 Ignition Oven Calibration

Western Alliance for Quality Transportation Construction (WAQTC)

WAQTC TM 1 * Fractured Faces

*Indicates test screen that allows for the entry of test results and other data required for reporting only (does not perform calculations).

Note: Although every effort has been made to ensure that the above information is correct, Spectra QEST makes no guarantee as to its accuracy.