



# CERTIFICATE OF ACCREDITATION



## Vermont Agency of Transportation


in

### Berlin, Vermont, USA

has demonstrated proficiency for the testing of construction materials and has conformed to the requirements established in AASHTO R 18 and the AASHTO Accreditation policies established by the AASHTO Committee on Materials and Pavements.

The scope of accreditation can be viewed on the Directory of AASHTO Accredited Laboratories ([aashtoresource.org](https://www.aashtoresource.org)).

  
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Jim Tymon,  
AASHTO Executive Director

  
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Moe Jamshidi,  
AASHTO COMP Chair

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# SCOPE OF AASHTO ACCREDITATION FOR:

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## Quality Management System

**Standard:**

**Accredited Since:**

R18	Establishing and Implementing a Quality System for Construction Materials Testing Laboratories	07/01/1997
C1077 (Aggregate)	Laboratories Testing Concrete and Concrete Aggregates	05/21/2012
C1077 (Concrete)	Laboratories Testing Concrete and Concrete Aggregates	07/29/2014
C1222 (Cement)	Evaluation of Laboratories Testing Hydraulic Cement	01/10/2011
D3666 (Aggregate)	Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials	01/10/2011
D3666 (Asphalt Binder)	Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials	05/21/2012
D3666 (Asphalt Mixture)	Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials	01/10/2011
E329 (Aggregate)	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	03/28/2013
E329 (Asphalt Binder)	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	09/13/2023
E329 (Asphalt Mixture)	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	09/13/2023
E329 (Concrete)	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	07/29/2014



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## Asphalt Binder

**Standard:**

**Accredited Since:**

R28 Accelerated Aging of Asphalt Binder Using a Pressurized Aging Vessel	02/01/1999
R29 Grading or Verifying the Performance Grade of an Asphalt Binder	09/03/2015
T49 Penetration of Original Sample of Asphalt Cement	02/01/1999
T228 Specific Gravity (Relative Density) of Asphalt Cement	02/01/1999
T240 Rolling Thin-Film Oven Testing	02/01/1999
T313 Determining the Flexural Creep Stiffness of Asphalt Binder Using the Bending Beam Rheometer (BBR)	02/01/1999
T315 Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)	02/01/1999
T350 Multiple Stress Creep and Recovery (MSCR)	10/30/2017



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## Emulsified Asphalt

**Standard:**

**Accredited Since:**

T59 Residue by Distillation

02/01/1999

T59 Residue by Evaporation

09/03/2015



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## Asphalt Mixture

**Standard:**

**Accredited Since:**

T30	Mechanical Analysis of Extracted Aggregate	02/01/1999
T166	Bulk Specific Gravity of Compacted Hot Mix Asphalt Using Saturated Surface-Dry Specimens	02/01/1999
T209	Maximum Specific Gravity of Hot Mix Asphalt Paving Mixtures	02/01/1999
T269	Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures	02/01/1999
T308	Determining the Asphalt Content of Hot Mix Asphalt (HMA) by the Ignition Method	02/01/1999
T312	Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor	02/01/1999
T324	Hamburg Wheel-Track Testing of Compacted Hot-Mix Asphalt (HMA)	10/30/2017
T331	Bulk Specific Gravity of Compacted Bituminous Mixtures Using Automatic Vacuum Sealing Method	10/30/2017
D3549	Thickness or Height of Compacted Bituminous Paving Mixture Specimens	07/23/2020



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## Soil

### Standard:

### Accredited Since:

R58	Dry Preparation of Disturbed Soil and Soil Aggregate Samples for Test	07/01/1997
R74	Wet Preparation of Disturbed Soil Samples for Test	09/13/2023
T88	Particle Size Analysis of Soils by Hydrometer	07/01/1997
T89	Determining the Liquid Limit of Soils (Atterberg Limits)	07/01/1997
T90	Plastic Limit of Soils (Atterberg Limits)	07/01/1997
T99	The Moisture-Density Relations of Soils Using a 5.5 lb [2.5 kg] Rammer and a 12 in. [305 mm] Drop	07/01/1997
T100	Specific Gravity of Soils	07/01/1997
T180	Moisture-Density Relations of Soils Using a 10 lb [4.54 kg] Rammer and an 18 in. [457 mm] Drop	07/01/1997
T208	Unconfined Compressive Strength of Cohesive Soil	07/01/1997
T216	One-Dimensional Consolidation Properties of Soils Using Incremental Loading	07/01/1997
T236	Direct Shear Test of Soils Under Consolidated Drained Conditions	07/14/2011
T265	Laboratory Determination of Moisture Content of Soils	07/01/1997
T296	Unconsolidated, Undrained Compressive Strength of Cohesive Soils in Triaxial Compression	07/01/1997
T297	Consolidated-Undrained Triaxial Compression Test on Cohesive Soils	07/01/1997
T310	In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)	07/01/1997
D1140	Amount of Material in Soils Finer than the No. 200 (75- $\mu$ m) Sieve	07/01/1997



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## Aggregate

### Standard:

### Accredited Since:

R76	Reducing Samples of Aggregate to Testing Size	07/01/1997
R90	Sampling Aggregate	09/03/2015
T11	Materials Finer Than 75- $\mu$ m (No. 200) Sieve in Mineral Aggregates by Washing	07/01/1997
T19	Bulk Density ("Unit Weight") and Voids in Aggregate	07/01/1997
T21	Organic Impurities in Fine Aggregates for Concrete	07/01/1997
T27	Sieve Analysis of Fine and Coarse Aggregates	07/01/1997
T37	Sieve Analysis of Mineral Filler for Road and Paving Materials	07/01/1997
T84	Specific Gravity (Relative Density) and Absorption of Fine Aggregate	07/01/1997
T85	Specific Gravity and Absorption of Coarse Aggregate	07/01/1997
T96	Resistance to Abrasion of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	07/01/1997
T104	Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate	07/01/1997
T176	Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test	07/01/1997
T255	Total Moisture Content of Aggregate by Drying	07/01/1997
T304	Uncompacted Void Content of Fine Aggregate (Influenced by Shape, Texture, and Grading)	07/01/1997
T327	Resistance to Abrasion by Micro-Deval (Coarse Aggregate)	10/30/2017
T335	Determining the Percentage of Fractured Particles in Coarse Aggregate	10/30/2017
C40	Organic Impurities in Fine Aggregates for Concrete	07/14/2011
C117	Materials Finer Than 75- $\mu$ m (No. 200) Sieve in Mineral Aggregates by Washing	07/14/2011
C127	Specific Gravity and Absorption of Coarse Aggregate	07/14/2011
C128	Specific Gravity (Relative Density) and Absorption of Fine Aggregate	07/14/2011
C136	Sieve Analysis of Fine and Coarse Aggregates	07/14/2011
C535	Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	07/14/2011
D4791	Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate	07/01/1997



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## Iron and Steel

<b>Standard:</b>	<b>Accredited Since:</b>
M31-T244 Carbon-Steel Bars, Deformed and Plain: Tension (Elongation)	09/14/2016
M31-T244 Carbon-Steel Bars, Deformed and Plain: Tension (Ultimate Tensile Strength)	09/14/2016
M31-T244 Carbon-Steel Bars, Deformed and Plain: Tension (Yield Strength)	09/14/2016
A563-E18 Internally Threaded Fasteners (Nuts): Rockwell Hardness	10/30/2017
A615-A370 Carbon-Steel Bars, Deformed and Plain: Tension (Elongation)	09/14/2016
A615-A370 Carbon-Steel Bars, Deformed and Plain: Tension (Ultimate Tensile Strength)	09/14/2016
A615-A370 Carbon-Steel Bars, Deformed and Plain: Tension (Yield Strength)	09/14/2016
A706-A370 Low Alloy Steel Bars, Deformed and Plain: Tension (Elongation)	09/14/2016
A706-A370 Low Alloy Steel Bars, Deformed and Plain: Tension (Ultimate Tensile Strength)	09/14/2016
A706-A370 Low Alloy Steel Bars, Deformed and Plain: Tension (Yield Strength)	09/14/2016
F3125 Externally Threaded Fasteners (Bolts): Rotational Capacity	10/30/2017
F3125-E18 Externally Threaded Fasteners (Bolts): Rockwell Hardness	10/06/2008
F1554-F606 Anchor Bolts: Tension (Ultimate Tensile Strength of finished bolts)	10/30/2017
F3125-F606 Externally Threaded Fasteners (Bolts): Ultimate Tensile Strength	03/28/2013





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## Concrete

Standard:		Accredited Since:
M201	Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the testing of Hydraulic Cements and Concretes	05/29/2014
R39	Making and Curing Concrete Test Specimens in the Laboratory	07/15/1997
R60	Sampling Freshly Mixed Concrete	07/15/1997
R100 (Cylinders)	Making and Curing Concrete Cylinder Test Specimens in the Field	07/29/2014
T22	Compressive Strength of Cylindrical Concrete Specimens	07/15/1997
T119	Slump of Hydraulic Cement Concrete	07/15/1997
T121	Density (Unit Weight), Yield, and Air Content of Concrete	07/15/1997
T152	Air Content of Freshly Mixed Concrete by the Pressure Method	07/15/1997
T161	Resistance of Concrete to Rapid Freezing and Thawing	07/15/1997
T196	Air Content of Freshly Mixed Concrete by the Volumetric Method	05/01/2012
T197	Time of Setting of Concrete Mixtures by Penetration Resistance	07/15/1997
T231 (7000 psi and below)	Capping Cylindrical Concrete Specimens	02/01/2022
T309	Temperature of Freshly Mixed Portland Cement Concrete	07/15/1997
T358	Surface Resistivity Indication of Concrete's Ability to Resist Chloride Ion Penetration	01/23/2019
C31 (Cylinders)	Making and Curing Concrete Cylinder Test Specimens in the Field	07/29/2014
C39	Compressive Strength of Cylindrical Concrete Specimens	07/15/1997
C138	Density (Unit Weight), Yield, and Air Content of Concrete	07/15/1997
C143	Slump of Hydraulic Cement Concrete	07/15/1997
C172	Sampling Freshly Mixed Concrete	07/15/1997
C173	Air Content of Freshly Mixed Concrete by the Volumetric Method	07/15/1997
C192	Making and Curing Concrete Test Specimens in the Laboratory	07/15/1997
C215	Fundamental Transverse, Longitudinal and Torsional Frequencies of Concrete Specimens	07/07/2014
C231	Air Content of Freshly Mixed Concrete by the Pressure Method	07/15/1997



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**Concrete (Continued)**

<b>Standard:</b>		<b>Accredited Since:</b>
C403	Time of Setting of Concrete Mixtures by Penetration Resistance	07/15/1997
C511	Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the testing of Hydraulic Cements and Concretes	05/01/2012
C617 (7000 psi and below)	Capping Cylindrical Concrete Specimens	02/01/2022
C642	Density, Absorption, and Voids in Hardened Concrete	01/23/2019
C666	Resistance of Concrete to Rapid Freezing and Thawing	07/15/1997
C805	Rebound Number of Hardened Concrete	07/15/1997
C1064	Temperature of Freshly Mixed Portland Cement Concrete	07/15/1997
C1231 (7000 psi and below)	Use of Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders	05/01/2012



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**Cement - Physical Tests**

<b>Standard:</b>		<b>Accredited Since:</b>
M201	Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the testing of Hydraulic Cements and Concretes	05/29/2014
R71	Sampling and the Amount of Testing of Hydraulic Cement	01/23/2019
T105 (Loss on Ignition - Reference)	Loss on Ignition – Reference	01/23/2019
T106	Compressive Strength of Hydraulic Cement Mortars (Using 2-in. Cube Specimens)	05/01/1999
T107	Autoclave Expansion of Portland Cement	05/01/1999
T129	Normal Consistency of Hydraulic Cement	05/01/1999
T131	Time of Setting of Hydraulic Cement by Vicat Needle	05/01/1999
T137	Air Content of Hydraulic Cement Mortar	05/01/1999
T153	Fineness of Hydraulic Cement by Air Permeability Apparatus	05/01/1999
T162	Mechanical Mixing of Hydraulic Cement Pastes and Mortars of Plastic Consistency	05/01/1999
T192	Fineness of Hydraulic Cement by the 45-µm (No. 325) Sieve	05/01/2012
C109	Compressive Strength of Hydraulic Cement Mortars (Using 2-in. Cube Specimens)	05/01/1999
C114 (Loss on Ignition - Reference)	Loss on Ignition – Reference	01/23/2019
C151	Autoclave Expansion of Portland Cement	05/01/1999
C183	Sampling and the Amount of Testing of Hydraulic Cement	09/14/2016
C185	Air Content of Hydraulic Cement Mortar	05/01/1999
C187	Normal Consistency of Hydraulic Cement	05/01/1999
C191	Time of Setting of Hydraulic Cement by Vicat Needle	05/01/1999
C204	Fineness of Hydraulic Cement by Air Permeability Apparatus	05/01/1999
C305	Mechanical Mixing of Hydraulic Cement Pastes and Mortars of Plastic Consistency	05/01/1999
C430	Fineness of Hydraulic Cement by the 45-µm (No. 325) Sieve	05/01/1999
C511	Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the testing of Hydraulic Cements and Concretes	05/01/2012
C1437	Flow of Hydraulic Cement Mortar	05/01/1999



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## Cementitious Material - Chemical Tests

<b>Standard:</b>	<b>Accredited Since:</b>
T105 Aluminum Oxide – X-Ray Fluorescence	09/14/2016
T105 Calcium Oxide – Reference	10/10/2023
T105 Calcium Oxide – X-Ray Fluorescence	09/14/2016
T105 Ferric Oxide – X-Ray Fluorescence	09/14/2016
T105 Insoluble Residue – Reference	09/14/2016
T105 Loss on Ignition – Reference	09/14/2016
T105 Magnesium Oxide – X-Ray Fluorescence	09/14/2016
T105 Potassium Oxide – X-Ray Fluorescence	09/14/2016
T105 Silicon Dioxide – X-Ray Fluorescence	09/14/2016
T105 Sulfur Trioxide – X-Ray Fluorescence	09/14/2016
C114 Aluminum Oxide – X-Ray Fluorescence	09/14/2016
C114 Calcium Oxide – Reference	10/10/2023
C114 Calcium Oxide – X-Ray Fluorescence	09/14/2016
C114 Ferric Oxide – X-Ray Fluorescence	09/14/2016
C114 Insoluble Residue – Reference	09/14/2016
C114 Loss on Ignition – Reference	09/14/2016
C114 Magnesium Oxide – X-Ray Fluorescence	09/14/2016
C114 Potassium Oxide – X-Ray Fluorescence	09/14/2016
C114 Silicon Dioxide – X-Ray Fluorescence	09/14/2016
C114 Sulfur Trioxide – X-Ray Fluorescence	09/14/2016