



CERTIFICATE OF ACCREDITATION



Pennsylvania Department of Transportation

in

Harrisburg, Pennsylvania, 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).

A handwritten signature in black ink, appearing to read 'Jim Tymon', written over a horizontal line.

Jim Tymon,
AASHTO Executive Director

A handwritten signature in black ink, appearing to read 'Moe Jamshidi', written over a horizontal line.

Moe Jamshidi,
AASHTO COMP Chair

This certificate was generated on 08/06/2020 at 8:34 AM Eastern Time. Please confirm the current accreditation status of this laboratory at aashtoresource.org/aap/accreditation-directory



SCOPE OF AASHTO ACCREDITATION FOR:
Pennsylvania Department of Transportation
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Quality Management System

Standard:

Accredited Since:

R18	Establishing and Implementing a Quality System for Construction Materials Testing Laboratories	12/01/1990
ISO/IEC 17025	General Requirements for the Competence of Testing and Calibration Laboratories	07/17/2003
C1077 (Concrete)	Laboratories Testing Concrete and Concrete Aggregates	01/10/2011
C1222 (Cement)	Evaluation of Laboratories Testing Hydraulic Cement	01/10/2011



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Asphalt Binder

Standard:

Accredited Since:

R28 Accelerated Aging of Asphalt Binder Using a Pressurized Aging Vessel	06/08/2004
R29 Grading or Verifying the Performance Grade of an Asphalt Binder	02/01/2016
T49 Penetration of Original Sample of Asphalt Cement	08/29/2011
T53 Softening Point of Bitumen (Ring-and-Ball Apparatus)	06/08/2004
T240 Rolling Thin-Film Oven Testing	08/29/2011
T301 Elastic Recovery Test of Bituminous Materials by Means of a Ductilometer	02/01/2016
T313 Determining the Flexural Creep Stiffness of Asphalt Binder Using the Bending Beam Rheometer (BBR)	08/29/2011
T315 Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)	06/08/2004
T316 Viscosity Determination of Asphalt Binder Using Rotational Viscometer	08/29/2011
T350 Multiple Stress Creep and Recovery (MSCR) at 64°C, 25mm plate, 1mm gap	02/01/2016



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Emulsified Asphalt

Standard:

Accredited Since:

T59 Particle Charge	06/08/2004
T59 Residue by Distillation	06/08/2004
T59 Saybolt Viscosity at 25°C (77°F)	08/29/2011
T59 Saybolt Viscosity at 50°C (122°F)	08/29/2011



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Asphalt Mixture

Standard:

Accredited Since:

T30	Mechanical Analysis of Extracted Aggregate	06/08/2004
T164	Quantitative Extraction of Asphalt Binder from Hot Mix Asphalt (HMA)	06/08/2004
T166	Bulk Specific Gravity of Compacted Hot Mix Asphalt Using Saturated Surface-Dry Specimens	06/08/2004
T209	Maximum Specific Gravity of Hot Mix Asphalt Paving Mixtures	06/08/2004
T269	Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures	06/08/2004
T275	Bulk Specific Gravity of Compacted Bituminous Mixtures Using Paraffin-Coated Specimens	06/08/2004
T283	Resistance of Compacted Mixtures to Moisture Induced Damage	06/08/2004
T308	Determining the Asphalt Content of Hot Mix Asphalt (HMA) by the Ignition Method	06/08/2004
T312	Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyrotory Compactor	06/08/2004
T324	Hamburg Wheel-Track Testing of Compacted Hot-Mix Asphalt (HMA)	12/11/2017
D5404	Recovery of Asphalt from Solution Using the Rotavapor Apparatus	08/29/2011



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Soil

Standard:

Accredited Since:

R58 Dry Preparation of Disturbed Soil and Soil Aggregate Samples for Test	01/01/1992
T88 Particle Size Analysis of Soils by Hydrometer	01/01/1992
T89 Determining the Liquid Limit of Soils (Atterberg Limits)	01/01/1992
T90 Plastic Limit of Soils (Atterberg Limits)	01/01/1992
T99 The Moisture-Density Relations of Soils Using a 5.5 lb [2.5 kg] Rammer and a 12 in. [305 mm] Drop	01/01/1992
T100 Specific Gravity of Soils	01/01/1992
T180 Moisture-Density Relations of Soils Using a 10 lb [4.54 kg] Rammer and an 18 in. [457 mm] Drop	01/01/1992
T193 The California Bearing Ratio	01/01/1992
T236 Direct Shear Test of Soils Under Consolidated Drained Conditions	01/01/1992
T265 Laboratory Determination of Moisture Content of Soils	01/01/1992
T267 Determination of Organic Content in Soils by Loss on Ignition	02/01/2016
T288 Minimum Soil Resistivity	12/11/2017
T289 pH of Soils for Corrosion Testing	02/01/2016



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Rock

Standard:

Accredited Since:

D4644 Slake Durability of Shales and Weak Rocks

12/11/2017



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Aggregate

Standard:

Accredited Since:

R76	Reducing Samples of Aggregate to Testing Size	12/01/1990
T11	Materials Finer Than 75- μ m (No. 200) Sieve in Mineral Aggregates by Washing	12/01/1990
T19	Bulk Density ("Unit Weight") and Voids in Aggregate	12/01/1990
T21	Organic Impurities in Fine Aggregates for Concrete	12/01/1990
T27	Sieve Analysis of Fine and Coarse Aggregates	12/01/1990
T84	Specific Gravity (Relative Density) and Absorption of Fine Aggregate	12/01/1990
T85	Specific Gravity and Absorption of Coarse Aggregate	12/01/1990
T96	Resistance to Abrasion of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	12/01/1990
T176	Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test	12/01/1990
T255	Total Moisture Content of Aggregate by Drying	12/01/1990
T304	Uncompacted Void Content of Fine Aggregate (Influenced by Shape, Texture, and Grading)	12/01/1990
T327	Resistance to Abrasion by Micro-Deval (Coarse Aggregate)	03/09/2016
D4791	Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate	02/01/2016
D5821	Determining the Percentage of Fractured Particles in Coarse Aggregate	01/07/2014



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Iron and Steel

Standard:	Accredited Since:
M111 Zinc Coatings on Iron and Steel: Thickness of Zinc (Magnetic)	08/29/2011
M284 Epoxy Coated Reinforcing Bars: Coating Continuity (Holidays)	02/01/2016
M284 Epoxy Coated Reinforcing Bars: Coating Flexibility (Bend Test)	02/01/2016
M284 Epoxy Coated Reinforcing Bars: Film Thickness	02/01/2016
M336 Deformed Steel Wire: Bend Test	08/29/2011
M336 Plain Steel Wire: Bend Test	02/01/2016
M336 Welded Deformed Steel Wire: Bend Test	07/18/2007
M336 Welded Deformed Steel Wire: Weld Shear	02/01/2016
M336 Welded Plain Steel Wire: Bend Test	07/18/2007
M336 Welded Plain Steel Wire: Weld Shear	02/01/2016
M111-T65 Zinc Coatings on Iron and Steel: Thickness of Zinc (Stripping)	02/01/2016
M31-T244 Carbon-Steel Bars, Deformed and Plain: Tension (Elongation)	02/01/2016
M31-T244 Carbon-Steel Bars, Deformed and Plain: Tension (Ultimate Tensile Strength)	02/01/2016
M31-T244 Carbon-Steel Bars, Deformed and Plain: Tension (Yield Strength)	02/01/2016
M31-T285 Carbon-Steel Bars, Deformed and Plain: Bend Test	07/18/2007
M270-T244 Structural Steel: Bend Test	12/11/2017
M270-T244 Structural Steel: Tension (Elongation)	12/11/2017
M270-T244 Structural Steel: Tension (Ultimate Tensile Strength)	12/11/2017
M270-T244 Structural Steel: Tension (Yield Strength)	12/11/2017
M270-T266 Structural Steel: Charpy V-Notch	02/01/2016
M336-T244 Deformed Steel Wire: Tension (Ultimate Tensile Strength)	02/01/2016
M336-T244 Deformed Steel Wire: Tension (Yield Strength)	02/01/2016
M336-T244 Plain Steel Wire: Tension (Ultimate Tensile Strength)	02/01/2016



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Iron and Steel (Continued)

Standard:	Accredited Since:
M336-T244 Plain Steel Wire: Tension (Yield Strength)	02/01/2016
M336-T244 Welded Deformed Steel Wire: Tension (Ultimate Tensile Strength)	02/01/2016
M336-T244 Welded Deformed Steel Wire: Tension (Yield Strength)	02/01/2016
M336-T244 Welded Plain Steel Wire: Tension (Ultimate Tensile Strength)	02/01/2016
M336-T244 Welded Plain Steel Wire: Tension (Yield Strength)	02/01/2016
A775 Epoxy Coated Reinforcing Bars: Coating Flexibility (Bend Test)	01/07/2014
A775 Epoxy Coated Reinforcing Bars: Film Thickness	01/07/2014
A1064 Deformed Steel Wire: Bend Test	08/29/2011
A1064 Plain Steel Wire: Bend Test	12/11/2017
A1064 Welded Deformed Steel Wire: Bend Test	07/18/2007
A1064 Welded Deformed Steel Wire: Weld Shear	02/01/2016
A1064 Welded Plain Steel Wire: Bend Test	07/18/2007
A1064 Welded Plain Steel Wire: Weld Shear	12/11/2017
A709-A6 Structural Steel: Bend Test	12/11/2017
A709-A6 Structural Steel: Tension (Elongation)	12/11/2017
A709-A6 Structural Steel: Tension (Ultimate Tensile Strength)	12/11/2017
A709-A6 Structural Steel: Tension (Yield Strength)	12/11/2017
A123-A90 Zinc Coatings on Iron and Steel: Thickness of Zinc (Stripping)	02/01/2016
A563-E18 Internally Threaded Fasteners (Nuts): Rockwell Hardness	02/01/2016
A709-E23 Structural Steel: Charpy V-Notch	12/11/2017
A775-G62 Epoxy Coated Reinforcing Bars: Coating Continuity (Holidays)	02/01/2016
A123-E376 Zinc Coatings on Iron and Steel: Thickness of Zinc (Magnetic)	08/29/2011
A615-A370 Carbon-Steel Bars, Deformed and Plain: Tension (Elongation)	02/01/2016



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Iron and Steel (Continued)

Standard:	Accredited Since:
A615-A370 Carbon-Steel Bars, Deformed and Plain: Tension (Ultimate Tensile Strength)	02/01/2016
A615-A370 Carbon-Steel Bars, Deformed and Plain: Tension (Yield Strength)	02/01/2016
A615-E290 Carbon-Steel Bars, Deformed and Plain: Bend Test	07/18/2007
A1064-A370 Deformed Steel Wire: Tension (Ultimate Tensile Strength)	02/01/2016
A1064-A370 Deformed Steel Wire: Tension (Yield Strength)	02/01/2016
A1064-A370 Plain Steel Wire: Tension (Ultimate Tensile Strength)	12/11/2017
A1064-A370 Plain Steel Wire: Tension (Yield Strength)	12/11/2017
A1064-A370 Welded Deformed Steel Wire: Tension (Ultimate Tensile Strength)	02/01/2016
A1064-A370 Welded Deformed Steel Wire: Tension (Yield Strength)	02/01/2016
A1064-A370 Welded Plain Steel Wire: Tension (Ultimate Tensile Strength)	12/11/2017
A1064-A370 Welded Plain Steel Wire: Tension (Yield Strength)	12/11/2017
A615-A1034 Carbon-Steel Bars, Deformed and Plain: Testing Mechanical Splices	12/11/2017
F436-E18 Hardened Steel Washers: Rockwell Hardness	02/01/2016
F3125-E18 Externally Threaded Fasteners (Bolts): Rockwell Hardness	07/18/2007



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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	01/10/2013
R39	Making and Curing Concrete Test Specimens in the Laboratory	12/01/1990
R60	Sampling Freshly Mixed Concrete	04/14/2015
T22	Compressive Strength of Cylindrical Concrete Specimens	12/01/1990
T23 (Cylinders)	Making and Curing Concrete Test Specimens in the Field	12/01/1990
T119	Slump of Hydraulic Cement Concrete	12/01/1990
T121	Density (Unit Weight), Yield, and Air Content of Concrete	12/01/1990
T152	Air Content of Freshly Mixed Concrete by the Pressure Method	12/01/1990
T196	Air Content of Freshly Mixed Concrete by the Volumetric Method	04/14/2015
T231 (8000 psi and below)	Capping Cylindrical Concrete Specimens	02/20/2020
T303	Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)	04/14/2015
T309	Temperature of Freshly Mixed Portland Cement Concrete	12/01/1990
C31 (Cylinders)	Making and Curing Concrete Test Specimens in the Field	12/01/1990
C39	Compressive Strength of Cylindrical Concrete Specimens	12/01/1990
C138	Density (Unit Weight), Yield, and Air Content of Concrete	12/01/1990
C143	Slump of Hydraulic Cement Concrete	12/01/1990
C172	Sampling Freshly Mixed Concrete	12/01/1990
C173	Air Content of Freshly Mixed Concrete by the Volumetric Method	12/01/1990
C192	Making and Curing Concrete Test Specimens in the Laboratory	12/01/1990
C231	Air Content of Freshly Mixed Concrete by the Pressure Method	12/01/1990
C511	Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the testing of Hydraulic Cements and Concretes	01/10/2013
C617 (8000 psi and below)	Capping Cylindrical Concrete Specimens	02/20/2020
C1064	Temperature of Freshly Mixed Portland Cement Concrete	12/01/1990



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Concrete (Continued)

Standard:

Accredited Since:

C1231 (7000 psi and below)	Use of Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders	01/10/2013
C1260	Potential Alkali Reactivity of Aggregates (Mortar-Bar Method)	04/14/2015
C1293	Determination of Length Change of Concrete Due to Alkali-Silica Reaction	04/14/2015
C1567	Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials and Aggregate (Accelerated Mortar-Bar Method)	04/14/2015



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Cement - Physical Tests

Standard:		Accredited Since:
M201	Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the testing of Hydraulic Cements and Concretes	01/10/2013
R71	Sampling and the Amount of Testing of Hydraulic Cement	01/10/2013
T105 (Loss on Ignition)	Loss on Ignition – Reference	06/26/2017
T106	Compressive Strength of Hydraulic Cement Mortars (Using 2-in. Cube Specimens)	11/01/1997
T107	Autoclave Expansion of Portland Cement	11/01/1997
T129	Normal Consistency of Hydraulic Cement	11/01/1997
T131	Time of Setting of Hydraulic Cement by Vicat Needle	11/01/1997
T133	Density of Hydraulic Cement	06/26/2017
T137	Air Content of Hydraulic Cement Mortar	11/01/1997
T153	Fineness of Hydraulic Cement by Air Permeability Apparatus	11/01/1997
T162	Mechanical Mixing of Hydraulic Cement Pastes and Mortars of Plastic Consistency	11/01/1997
T192	Fineness of Hydraulic Cement by the 45-µm (No. 325) Sieve	11/01/1997
C109	Compressive Strength of Hydraulic Cement Mortars (Using 2-in. Cube Specimens)	11/01/1997
C114 (Loss on Ignition)	Loss on Ignition – Reference	06/26/2017
C151	Autoclave Expansion of Portland Cement	11/01/1997
C183	Sampling and the Amount of Testing of Hydraulic Cement	11/01/1997
C185	Air Content of Hydraulic Cement Mortar	11/01/1997
C187	Normal Consistency of Hydraulic Cement	11/01/1997
C188	Density of Hydraulic Cement	06/26/2017
C191	Time of Setting of Hydraulic Cement by Vicat Needle	11/01/1997
C204	Fineness of Hydraulic Cement by Air Permeability Apparatus	11/01/1997
C305	Mechanical Mixing of Hydraulic Cement Pastes and Mortars of Plastic Consistency	11/01/1997
C430	Fineness of Hydraulic Cement by the 45-µm (No. 325) Sieve	11/01/1997



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Cement - Physical Tests (Continued)

Standard:

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C511	Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the testing of Hydraulic Cements and Concretes	01/10/2013
C1038	Expansion of Hydraulic Cement Mortar Bars Stored in Water	11/01/1997
C1437	Flow of Hydraulic Cement Mortar	11/01/1997



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Cementitious Material - Chemical Tests

Standard:	Accredited Since:
T105 Aluminum Oxide – X-Ray Fluorescence	11/01/1997
T105 Calcium Oxide – X-Ray Fluorescence	11/01/1997
T105 Chloride – X-Ray Fluorescence	11/01/1997
T105 Ferric Oxide – X-Ray Fluorescence	11/01/1997
T105 Loss on Ignition – Reference	11/01/1997
T105 Magnesium Oxide – X-Ray Fluorescence	11/01/1997
T105 Manganic Oxide – X-Ray Fluorescence	01/10/2013
T105 Phosphorus Pentoxide – X-Ray Fluorescence	11/01/1997
T105 Potassium Oxide – X-Ray Fluorescence	11/01/1997
T105 Silicon Dioxide – X-Ray Fluorescence	01/01/1992
T105 Sodium Oxide – X-Ray Fluorescence	11/01/1997
T105 Sulfur Trioxide – X-Ray Fluorescence	11/01/1997
T105 Titanium Dioxide – X-Ray Fluorescence	01/10/2013
T105 Zinc Oxide – X-Ray Fluorescence	11/01/1997
C114 Aluminum Oxide – X-Ray Fluorescence	11/01/1997
C114 Calcium Oxide – X-Ray Fluorescence	11/01/1997
C114 Chloride – X-Ray Fluorescence	11/01/1997
C114 Ferric Oxide – X-Ray Fluorescence	11/01/1997
C114 Loss on Ignition – Reference	11/01/1997
C114 Magnesium Oxide – X-Ray Fluorescence	11/01/1997
C114 Manganic Oxide – X-Ray Fluorescence	01/10/2013
C114 Phosphorus Pentoxide – X-Ray Fluorescence	11/01/1997
C114 Potassium Oxide – X-Ray Fluorescence	11/01/1997



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Cementitious Material - Chemical Tests (Continued)

Standard:	Accredited Since:
C114 Silicon Dioxide – X-Ray Fluorescence	11/01/1997
C114 Sodium Oxide – X-Ray Fluorescence	11/01/1997
C114 Sulfur Trioxide – X-Ray Fluorescence	11/01/1997
C114 Titanium Dioxide – X-Ray Fluorescence	01/10/2013
C114 Zinc Oxide – X-Ray Fluorescence	11/01/1997



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Pozzolan

Standard:		Accredited Since:
M201	Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the testing of Hydraulic Cements and Concretes	04/14/2015
T105 (Loss on Ignition)	Loss on Ignition – Reference	04/14/2015
T106	Compressive Strength of Hydraulic Cement Mortars (Using 2-in. Cube Specimens)	04/14/2015
T107	Autoclave Expansion of Portland Cement	04/14/2015
T129	Normal Consistency of Hydraulic Cement	04/14/2015
T133	Density of Hydraulic Cement	04/14/2015
T162	Mechanical Mixing of Hydraulic Cement Pastes and Mortars of Plastic Consistency	04/14/2015
T192	Fineness of Hydraulic Cement by the 45- μ m (No. 325) Sieve	06/26/2017
C109	Compressive Strength of Hydraulic Cement Mortars (Using 2-in. Cube Specimens)	04/14/2015
C114 (Loss on Ignition)	Loss on Ignition – Reference	04/14/2015
C151	Autoclave Expansion of Portland Cement	04/14/2015
C187	Normal Consistency of Hydraulic Cement	04/14/2015
C188	Density of Hydraulic Cement	04/14/2015
C305	Mechanical Mixing of Hydraulic Cement Pastes and Mortars of Plastic Consistency	04/14/2015
C430	Fineness of Hydraulic Cement by the 45- μ m (No. 325) Sieve	04/14/2015
C511	Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the testing of Hydraulic Cements and Concretes	04/14/2015
C1437	Flow of Hydraulic Cement Mortar	04/14/2015