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M 281-96 (2018)	Steel Fence Posts and Assemblies, Hot-Wrought
M 285M/M 285-19	Castings, Iron-Chromium-Nickel, Corrosion Resistant, for Severe Service
M 286-18	Smooth-Tread Standard Tire for Special-Purpose Pavement Frictional-Property Tests
M 288-17	Geosynthetic Specification for Highway Applications
M 289-91 (2017)	Aluminum-Zinc Alloy Coated Sheet Steel for Corrugated Steel Pipe
M 290-96 (2018)	<i>Discontinued</i> —Acrylic Prismatic Reflectors and Embossed Aluminum Frames for Signs
M 292M/M 292-19	Carbon and Alloy Steel Nuts for Bolts for High-Pressure or High-Temperature Service, or Both
M 294-18	Corrugated Polyethylene Pipe, 300- to 1500-mm (12- to 60-in.) Diameter
M 295-19	Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
M 297-10 (2019)	Preformed Polychloroprene Elastomeric Joint Seals for Bridges
M 300-03 (2017)	Inorganic Zinc-Rich Primer
M 302-19	Slag Cement for Use in Concrete and Mortars
M 303-89 (2019)	Lime for Asphalt Mixtures
M 304-11 (2019)	Poly(Vinyl Chloride) (PVC) Profile Wall Drain Pipe and Fittings Based on Controlled Inside Diameter
M 306-10 (2019)	Drainage, Sewer, Utility, and Related Castings
M 307-13 (2017)	Silica Fume Used in Cementitious Mixtures
M 314-90 (2018)	Steel Anchor Bolts
M 316-18	Polymer-Modified Emulsified Asphalt
M 318-02 (2019)	Glass Cullet Use for Soil–Aggregate Base Course
M 319-02 (2019)	Reclaimed Concrete Aggregate for Unbound Soil–Aggregate Base Course
M 320-17	Performance-Graded Asphalt Binder
M 321-04 (2017)	High-Reactivity Pozzolans for Use in Hydraulic-Cement Concrete, Mortar, and Grout

Number	Title
M 322M/M 322-10 (2019)	Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement
M 323-17	Superpave Volumetric Mix Design
M 325-08 (2017)	Stone Matrix Asphalt (SMA)
M 326-18	Polyethylene (PE) Liner Pipe, 300- to 1600-mm Diameter, Based on Controlled Outside Diameter
M 327-19	Processing Additions for Use in the Manufacture of Hydraulic Cements
M 328-14 (2018)	Inertial Profiler
M 329M/M 329-11 (2019)	Stainless Clad Deformed and Plain Round Steel Bars for Concrete Reinforcement
M 330-19	Polypropylene Pipe, 300- to 1500-mm (12- to 60-in.) Diameter
M 331-17	Smoothness of Pavement in Weigh-in-Motion (WIM) Systems
M 332-19	Performance-Graded Asphalt Binder Using Multiple Stress Creep Recovery (MSCR) Test
M 333-16	Detectable Warning Surfaces
M 334M/M 334-17	Uncoated, Corrosion-Resistant, Deformed and Plain Chromium Alloyed, Billet-Steel Bars for Concrete Reinforcement and Dowels
M 335-19	Steel-Reinforced Polyethylene (PE) Ribbed Pipe, 300- to 1500-mm (12- to 60-in.) Diameter
M 336M/M336-18	Steel Wire and Welded Wire, Plain and Deformed, for Concrete Reinforcement
R 5-17	Selection and Use of Emulsified Asphalts
R 8-96 (2015)	Evaluation of Transportation-Related Earthborne Vibrations
R 9-05 (2018)	Acceptance Sampling Plans for Highway Construction
R 10-06 (2016)	Definition of Terms Related to Quality and Statistics as Used in Highway Construction
R 13-12 (2016)	Conducting Geotechnical Subsurface Investigations
R 15-18	Asphalt Additives and Modifiers
R 18-18	Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories
R 20-99 (2017)	Procedures for Measuring Highway Noise
R 21-96 (2015)	Drilling for Subsurface Investigations—Unexpectedly Encountering Suspected Hazardous Material
R 22-97 (2015)	Decommissioning Geotechnical Exploratory Boreholes
R 23-99 (2018)	Chemical, Biological, and Physical Analysis of Water
R 24-99 (2018)	Collection and Preservation of Water Samples
R 25-19	Technician Training and Certification Programs
R 26-01 (2018)	Certifying Suppliers of Performance-Graded Asphalt Binders
R 27-01 (2019)	Assessment of Corrosion of Steel Piling for Non-Marine Applications

Number	Title
R 28-12 (2016)	Accelerated Aging of Asphalt Binder Using a Pressurized Aging Vessel (PAV)
R 29-15 (2019)	Grading or Verifying the Performance Grade (PG) of an Asphalt Binder
R 30-02 (2019)	Mixture Conditioning of Hot Mix Asphalt (HMA)
R 31-09 (2014)	Evaluation of Protective Coating Systems for Structural Steel
R 32-19	Calibrating the Load Cell and Deflection Sensors for a Falling Weight Deflectometer
R 33-11 (2019)	Calibrating the Reference Load Cell Used for Reference Calibrations for a Falling Weight Deflectometer
R 34-03 (2018)	Evaluating Deicing Chemicals
R 35-17	Superpave Volumetric Design for Asphalt Mixtures
R 36-17	Evaluating Faulting of Concrete Pavements
R 37-04 (2018)	Application of Ground Penetrating Radar (GPR) to Highways
R 38-10 (2018)	Quality Assurance of Standard Manufactured Materials
R 39-19	Making and Curing Concrete Test Specimens in the Laboratory
R 40-10 (2018)	Measuring Pavement Profile Using a Rod and Level
R 41-05 (2015)	<i>Discontinued</i> —Measuring Pavement Profile Using a Dipstick®
R 42-06 (2016)	Developing a Quality Assurance Plan for Hot Mix Asphalt (HMA)
R 43-13 (2017)	Quantifying Roughness of Pavements
R 44-07 (2018)	Independent Assurance (IA) Programs
R 45-13 (2017)	Installing, Monitoring, and Processing Data of the Traveling Type Slope Inclinometer
R 46-08 (2017)	Designing Stone Matrix Asphalt (SMA)
R 47-19	Reducing Samples of Asphalt Mixtures to Testing Size
R 49-09 (2018)	Determination of Low-Temperature Performance Grade (PG) of Asphalt Binders
R 50-09 (2018)	Geosynthetic Reinforcement of the Aggregate Base Course of Flexible Pavement Structures
R 51-13 (2017)	Compost for Erosion/Sediment Control (Filter Berms and Filter Socks)
R 52-10 (2019)	Compost for Erosion/Sediment Control (Compost Blankets)
R 54-14 (2018)	Accepting Pavement Ride Quality When Measured Using Inertial Profiling Systems
R 56-14 (2018)	Certification of Inertial Profiling Systems
R 57-14 (2018)	Operating Inertial Profiling Systems
R 58-11 (2019)	Dry Preparation of Disturbed Soil and Soil–Aggregate Samples for Test
R 59-11 (2019)	Recovery of Asphalt Binder from Solution by Abson Method
R 60-12 (2016)	Sampling Freshly Mixed Concrete

Number	Title
R 61-12 (2016)	Establishing Requirements for Equipment Calibrations, Standardizations, and Checks
R 62-13 (2017)	Developing Dynamic Modulus Master Curves for Asphalt Mixtures
R 63-13 (2017)	Solid Wall High-Density Polyethylene (HDPE) Conduit for Non-Pressure Applications Used for the Protection of Power and Communications Cables
R 64-17	Sampling and Fabrication of 50-mm (2-in.) Cube Specimens Using Grout (Non-Shrink) or Mortar
R 65-14 (2018)	Evaluating the Engineering and Environmental Suitability of Recycled Materials
R 66-16	Sampling Asphalt Mixtures
R 67-16	Sampling Asphalt Mixtures after Compaction (Obtaining Cores)
R 68-15 (2019)	Preparation of Asphalt Mixtures by Means of the Marshall Apparatus
R 69-15	Determination of Long-Term Strength for Geosynthetic Reinforcement
R 70M/R 70-18	Use of Apparatus for the Determination of Length Change of Hardened Cement Paste, Mortar, and Concrete
R 71-16	Sampling and Amount of Testing of Hydraulic Cement
R 72-16	Match Curing of Concrete Test Specimens
R 73-16	Evaluation of Precast Concrete Drainage Products
R 74-16	Wet Preparation of Disturbed Soil Samples for Test
R 75-16	Developing a Family of Curves
R 76-16	Reducing Samples of Aggregate to Testing Size
R 77-16	Certifying Suppliers of Emulsified Asphalt
R 78-16	Recovering Residue from Emulsified Asphalt Using Low-Temperature Evaporative Techniques
R 79-19	Vacuum Drying Compacted Asphalt Specimens
R 80-17	Determining the Reactivity of Concrete Aggregates and Selecting Appropriate Measures for Preventing Deleterious Expansion in New Concrete Construction
R 81-17	Static Segregation of Hardened Self-Consolidating Concrete (SCC) Cylinders
R 82-17	Pipe Joint Selection for Highway Culvert and Storm Drains
R 83-17	Preparation of Cylindrical Performance Test Specimens Using the Superpave Gyratory Compactor (SGC)
R 84-17	Developing Dynamic Modulus Master Curves for Asphalt Mixtures Using the Asphalt Mixture Performance Tester (AMPT)
R 85-18	Quantifying Cracks in Asphalt Pavement Surfaces from Collected Pavement Images Utilizing Automated Methods
R 86-18	Collecting Images of Pavement Surfaces for Distress Detection
R 87-18	Determining Pavement Deformation Parameters and Cross Slope from Collected Transverse Profiles

Number	Title
R 88-18	Collecting the Transverse Pavement Profile
R 89-18	Accreditation Bodies Operating in the Fields of Construction Materials Testing and Inspection
R 90-18	Sampling Aggregate Products
R 91-18	Determining Aggregate Source Shape Values from Digital Image Analysis Shape Properties
R 92-18	Evaluating the Elastic Behavior of Asphalt Binders Using the Multiple Stress Creep Recovery (MSCR) Test
R 93-19	Service Life Determination of Corrugated HDPE Pipes Manufactured with Recycled Content
R 94-19	Quality Assurance, Job Site Quality Control, and Reapplication of Protective Sealers for Portland Cement Concrete
R 95-19	Accelerated Aging of Hot-Poured Asphalt Crack Sealant Using a Vacuum Oven
R 96-19	Installation, Operation, and Maintenance of Ignition Furnaces
R 97-19	Sampling Asphalt Mixtures

DELETED STANDARDS

M 32M/M 32-09 (2013)	Steel Wire, Plain, for Concrete Reinforcement
M 55M/M 55-09 (2013)	Steel Welded Wire Reinforcement, Plain, for Concrete
M 221M/M 221-09 (2013)	Steel Welded Wire Reinforcement, Deformed, for Concrete
M 225M/M 225-09 (2013)	Steel Wire, Deformed, for Concrete Reinforcement
R 16-04 (2016)	Regulatory Information for Chemicals Used in AASHTO Tests
R 48-10 (2013)	Determining Rut Depth in Pavements
R 55-10 (2013)	Quantifying Cracks in Asphalt Pavement Surfaces

LIST OF TECHNICAL CHANGES—PART 1

The balloted technical changes listed below are also indicated in the specifications by a change bar in the left margin and by highlighted text (for additions) or struck-through text (for deletions). Unballoted editorial changes do not receive the change bar, highlighting, or strike-through; however, any standard that is neither revised nor reconfirmed but contains such changes does include an endnote stating that minor editorial revisions have been made.

Release: Group 3 (July 2019)

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
M 17-11 (2019)	Mineral Filler for Bituminous Paving Mixtures	2c	Reconfirmed for 2019 publication.
M 195-11 (2019)	Lightweight Aggregates for Structural Concrete	1c	Reconfirmed for 2019 publication.
M 231-95 (2019)	Weighing Devices Used in the Testing of Materials	1b	Reconfirmed for 2019 publication.
M 318-02 (2019)	Glass Cullet Use for Soil–Aggregate Base Course	1a	Reconfirmed for 2019 publication.
M 319-02 (2019)	Reclaimed Concrete Aggregate for Unbound Soil–Aggregate Base Course	1a	Reconfirmed for 2019 publication with minor editorial changes.
M 332-19	Performance-Graded Asphalt Binder Using Multiple Stress Creep Recovery (MSCR) Test	2b	Revised to incorporate several changes to Table 1.
R 27-01 (2019)	Assessment of Corrosion of Steel Piling for Non-Marine Applications	1a	Reconfirmed for 2019 publication.
R 29-15 (2019)	Grading or Verifying the Performance Grade (PG) of an Asphalt Binder	2b	Reconfirmed for 2019 publication.
R 30-02	Mixture Conditioning of Hot Mix Asphalt (HMA)	2d	Reconfirmed for 2019 publication.
R 47-19	Reducing Samples of Asphalt Mixtures to Testing Size	2c	Revised to change the maximum temperature for heating equipment in Section 8.1 to the maximum mixing temperature, add heating of equipment to Sections 10.1 and 12.1, and change “hot mix asphalt” and “HMA” to “asphalt mixtures” throughout the standard.
R 52-10 (2019)	Compost for Erosion/Sediment Control (Compost Blankets)	1a	Reconfirmed for 2019 publication.

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
R 58-11 (2019)	Dry Preparation of Disturbed Soil and Soil–Aggregate Samples for Test	1a	Reconfirmed for 2019 publication.
R 59-11 (2019)	Recovery of Asphalt Binder from Solution by Abson Method	2c	Reconfirmed for 2019 publication.
R 68-15 (2019)	Preparation of Asphalt Mixtures by Means of the Marshall Apparatus	2d	Reconfirmed for 2019 publication.
R 79-19	Vacuum Drying Compacted Asphalt Specimens	2c	Revised to remove the definition for constant mass, generalize the requirements for thermometric devices, and modify the procedure to require two drying cycles.
R 96-19	Installation, Operation, and Maintenance of Ignition Furnaces	2c	New standard practice.
R 97-19	Sampling Asphalt Mixtures	2c	Revised AASHTO standard T 168 and reclassified from a standard method of test to a standard practice, R 97.

Release: Group 2 (June 2019)

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
M 30-15 (2019)	Metallic-Coated Steel Wire Rope and Fittings for Highway Guardrail	4d	Reconfirmed for 2019 publication.
M 31M/M 31-19	Deformed and Plain Carbon and Low-Alloy Steel Bars for Concrete Reinforcement	4f	Removed Grades 280 and 520 for Type W, which were included by error.
M 54M/M 54-19	Welded Deformed Steel Bar Mats for Concrete Reinforcement	4f	Removed Grades 280 and 520 for Type W, which were included by error.
M 102M/M 102-19	Steel Forgings, Carbon and Alloy, for General Industrial Use	4f	Revised to maintain equivalency with ASTM A668/A668M.
M 103M/M 103-19	Steel Castings, Carbon, for General Application	4f	Revised to maintain equivalency with ASTM A27/A27M.

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
M 111M/M 111-19	Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products	4f	Revised to maintain equivalency with ASTM A123/A123M.
M 163M/M 163-19	Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion Resistant, for General Application	4f	Revised to maintain equivalency with ASTM A743/A743M.
M 169-15 (2019)	Steel Bars, Carbon and Alloy, Cold-Finished	4f	Reconfirmed for 2019 publication.
M 202M/M 202-19	Steel Sheet Piling	4f	Revised to maintain equivalency with ASTM A328/A328M.
M 204M/M 204-19	Stress-Relieved Steel Wire for Prestressed Concrete	4f	Revised to maintain equivalency with ASTM A421/A421M.
M 213-01 (2019)	Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)	4e	Reconfirmed for 2019 publication.
M 227M/M 227-19	Steel Bars, Carbon, Merchant Quality, Mechanical Properties	4f	Revised to maintain equivalency with ASTM A663/A663M.
M 232M/M232-19	Zinc Coating (Hot-Dip) on Iron and Steel Hardware	4f	Revised to maintain equivalency with ASTM A153/A153M.
M 233-86 (2019)	Boiled Linseed Oil Mixture for Treatment of Portland Cement Concrete	4c	Reconfirmed for 2019 publication.
M 237-96 (2019)	Epoxy Resin Adhesives for Bonding Traffic Markers to Hardened Portland Cement and Asphalt Concrete	4c	Reconfirmed for 2019 publication.
M 246-15 (2019)	Steel Sheet, Metallic-Coated and Polymer-Precoated, for Corrugated Steel Pipe	4b	Reconfirmed for 2019 publication.
M 254-06 (2019)	Corrosion-Resistant Coated Dowel Bars	4f	Reconfirmed for 2019 publication.
M 255M/M 255-19	Steel Bars, Carbon, Hot-Wrought, Special Quality, Mechanical Properties	4f	Revised to maintain equivalency with ASTM A675/A675M.
M 268-15 (2019)	Retroreflective Sheeting for Flat and Vertical Traffic Control Applications	4d	Reconfirmed for 2019 publication.
M 270M/M 270-19	Structural Steel for Bridges	4f	Revised to maintain equivalency with ASTM A709/A709M.

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
M 275M/M 275-19	Uncoated High-Strength Steel Bars for Prestressing Concrete	4f	Revised to maintain equivalency with ASTM A722/A722M.
M 277-06 (2019)	Wire Rope and Sockets for Movable Bridges	4f	Reconfirmed for 2019 publication.
M 278-15 (2019)	Class PS46 Poly(Vinyl Chloride) (PVC) Pipe	4b	Reconfirmed for 2019 publication.
M 285M/M 285-19	Castings, Iron-Chromium-Nickel, Corrosion Resistant, for Severe Service	4f	Revised to maintain equivalency with ASTM A744/A744M.
M 290-96 (2018)	Acrylic Prismatic Reflectors and Embossed Aluminum Frames for Signs	4d	Discontinued.
M 292M/M 292-19	Carbon and Alloy Steel Nuts for Bolts for High-Pressure or High-Temperature Service, or Both	4d	Revised to maintain equivalency with ASTM A194/A194M.
M 297-10 (2019)	Preformed Polychloroprene Elastomeric Joint Seals for Bridges	4e	Reconfirmed for 2019 publication.
M 304-11 (2019)	Poly(Vinyl Chloride) (PVC) Profile Wall Drain Pipe and Fittings Based on Controlled Inside Diameter	4b	Reconfirmed for 2019 publication.
M 306-10 (2019)	Drainage, Sewer, Utility, and Related Castings	4f	Reconfirmed for 2019 publication.
M 322M/M 322-10 (2019)	Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement	4f	Reconfirmed for 2019 publication.
M 329M/M 329-11 (2019)	Stainless Clad Deformed and Plain Round Steel Bars for Concrete Reinforcement	4f	Reconfirmed for 2019 publication.
M 330-19	Polypropylene Pipe, 300- to 1500-mm (12- to 60-in.) Diameter	4b	Revised to match the inside diameter tolerances for HDPE inside diameter tolerances.
M 335-19	Steel-Reinforced Polyethylene (PE) Ribbed Pipe, 300- to 1500-mm (12- to 60-in.) Diameter	4b	Revised thicknesses in the standard to match those currently produced in the United States.
R 93-19	Service Life Determination of Corrugated HDPE Pipes Manufactured with Recycled Content	4b	New full standard in 2019.
R 94-19	Quality Assurance, Job Site Quality Control, and Reapplication of Protective Sealers for Portland Cement Concrete	4c	Adopted AASHTO Provisional standard PP 73 as a full standard practice, R 94.
R 95-19	Accelerated Aging of Hot-Poured Asphalt Crack Sealant Using a Vacuum Oven	4e	Revised AASHTO standard T 367 and reclassified from a standard method of test to a standard practice, R 95.

Release: Group 1 (April 2019)

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
M 85-19	Portland Cement	3a	Replaced low-alkali definition, modified heat of hydration requirements, and removed reference to T 98M/T 98.
M 205M/M 205-11 (2019)	Molds for Forming Concrete Test Cylinders Vertically	3b	Reconfirmed for 2019 publication.
M 224-91 (2019)	Use of Protective Sealers for Portland Cement Concrete	5b	Reconfirmed for 2019 publication.
M 240M/M 240-19	Blended Hydraulic Cement	3a	Removed completion of Option R; revised Type MH and LH heat of hydration provisions; removed Sections 9.3 and 11.1.13; and removed referenced information in Table 4.
M 295-19	Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete	3b	Revised to maintain equivalency with ASTM C618.
M 302-19	Slag Cement for Use in Concrete and Mortars	3b	Revised to maintain equivalency with ASTM C989/C989M.
M 303-89 (2019)	Lime for Asphalt Mixtures	3a	Reconfirmed for 2019 publication.
M 327-19	Processing Additions for Use in the Manufacture of Hydraulic Cements	3c	Modified fineness requirement for companion cements.
R 25-19	Technician Training and Certification Programs	5c	Revised extensively.
R 32-19	Calibrating the Load Cell and Deflection Sensors for a Falling Weight Deflectometer	5a	Increased recertification period for FWD operators from one year to two years; changed “annual calibration” to “reference calibration.”
R 33-11 (2019)	Calibrating the Reference Load Cell Used for Reference Calibrations for a Falling Weight Deflectometer	5a	Reconfirmed for 2019 publication.
R 39-19	Making and Curing Concrete Test Specimens in the Laboratory	3b	Revised extensively.

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
R 41-05 (2015)	Measuring Pavement Profile Using a Dipstick®	5a	Discontinued because faster, equally accurate reference profilers are now available and widely used. See R 56 for current reference profiler guidance.

PART 2—STANDARD TESTS

SUBJECT SEQUENCE TABLE OF CONTENTS

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AGGREGATES	
T 11-05 (2018)	Materials Finer Than 75- μ m (No. 200) Sieve in Mineral Aggregates by Washing
T 19M/T 19-14 (2018)	Bulk Density (“Unit Weight”) and Voids in Aggregate
T 21M/T 21-15 (2019)	Organic Impurities in Fine Aggregates for Concrete
T 27-14 (2018)	Sieve Analysis of Fine and Coarse Aggregates
T 30-19	Mechanical Analysis of Extracted Aggregate
T 37-07 (2016)	Sieve Analysis of Mineral Filler for Hot Mix Asphalt (HMA)
T 71-08 (2017)	Effect of Organic Impurities in Fine Aggregate on Strength of Mortar
T 84-13 (2017)	Specific Gravity and Absorption of Fine Aggregate
T 85-14 (2018)	Specific Gravity and Absorption of Coarse Aggregate
T 96-02 (2019)	Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
T 103-08 (2017)	Soundness of Aggregates by Freezing and Thawing
T 104-99 (2016)	Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate
T 112-00 (2017)	Clay Lumps and Friable Particles in Aggregate
T 113-18	Lightweight Pieces in Aggregate
T 210-15 (2019)	Aggregate Durability Index
T 255-00 (2017)	Total Evaporable Moisture Content of Aggregate by Drying
T 279-18	Accelerated Polishing of Aggregates Using the British Wheel
T 304-17	Uncompacted Void Content of Fine Aggregate
T 326-05 (2018)	Uncompacted Void Content of Coarse Aggregate (As Influenced by Particle Shape, Surface Texture, and Grading)
T 327-12 (2016)	Resistance of Coarse Aggregate to Degradation by Abrasion in the Micro-Deval Apparatus
T 330-07 (2019)	The Qualitative Detection of Harmful Clays of the Smectite Group in Aggregates Using Methylene Blue
T 335-09 (2018)	Determining the Percentage of Fracture in Coarse Aggregate
T 354-17	Specific Gravity and Absorption of Aggregate by Volumetric Immersion Method
T 380-19	Potential Alkali Reactivity of Aggregates and Effectiveness of ASR Mitigation Measures (Miniature Concrete Prism Test, MCPT)
T 381-18	Determining Aggregate Shape Properties by Means of Digital Image Analysis

Number	Title
BITUMINOUS MATERIALS	
T 44-14 (2018)	Solubility of Bituminous Materials
T 48-18	Flash Fire Point of Asphalt Binder by Cleveland Open Cup
T 49-15 (2019)	Penetration of Bituminous Materials
T 50-14 (2018)	Float Test for Bituminous Materials
T 51-09 (2018)	Ductility of Asphalt Materials
T 53-09 (2018)	Softening Point of Bitumen (Ring-and-Ball Apparatus)
T 59-16	Emulsified Asphalts
T 72-10 (2019)	Saybolt Viscosity
T 78-15 (2019)	Distillation of Cutback Asphalt Products
T 79-12 (2016)	Flash Point with Tag Open-Cup Apparatus for Use with Material Having a Flash Point Less Than 93°C (200°F)
T 102-09 (2018)	Spot Test of Asphaltic Materials
T 110-03 (2016)	Moisture or Volatile Distillates in Hot Mix Asphalt (HMA)
T 111-11 (2019)	Mineral Matter or Ash in Asphalt Materials
T 164-14 (2018)	Quantitative Extraction of Asphalt Binder from Hot Mix Asphalt (HMA)
T 166-16	Bulk Specific Gravity (G_{mb}) of Compacted Asphalt Mixtures Using Saturated Surface-Dry Specimens
T 167-10 (2019)	Compressive Strength of Hot Mix Asphalt
T 168-03 (2016)	<i>Discontinued</i> —Sampling Bituminous Paving Mixtures
T 179-05 (2018)	Effect of Heat and Air on Asphalt Materials (Thin-Film Oven Test)
T 195-18	Determining Degree of Particle Coating of Asphalt Mixtures
T 201-15 (2019)	Kinematic Viscosity of Asphalts (Bitumens)
T 202-15 (2019)	Viscosity of Asphalts by Vacuum Capillary Viscometer
T 209-19	Theoretical Maximum Specific Gravity (G_{mm}) and Density of Asphalt Mixtures
T 228-09 (2018)	Specific Gravity of Semi-Solid Asphalt Materials
T 240-13 (2017)	Effect of Heat and Air on a Moving Film of Asphalt Binder (Rolling Thin-Film Oven Test)
T 245-15 (2019)	Resistance to Plastic Flow of Asphalt Mixtures Using Marshall Apparatus
T 246-10 (2019)	Resistance to Deformation and Cohesion of Hot Mix Asphalt (HMA) by Means of Hveem Apparatus
T 247-10 (2019)	Preparation of Test Specimens of Hot Mix Asphalt (HMA) by Means of California Kneading Compactor
T 269-14 (2018)	Percent Air Voids in Compacted Dense and Open Asphalt Mixtures
T 275-17	Bulk Specific Gravity (G_{mb}) of Compacted Asphalt Mixtures Using Paraffin-Coated Specimens
T 283-14 (2018)	Resistance of Compacted Asphalt Mixtures to Moisture-Induced Damage
T 287-14 (2018)	Asphalt Binder Content of Asphalt Mixtures by the Nuclear Method
T 295-13 (2017)	Specific Gravity or API Gravity of Liquid Asphalts by Hydrometer Method

Number	Title
T 300-11 (2016)	Force Ductility Test of Asphalt Materials
T 301-13 (2017)	Elastic Recovery Test of Asphalt Materials by Means of a Ductilometer
T 302-15 (2019)	Polymer Content of Polymer-Modified Emulsified Asphalt Residue and Asphalt Binders
T 305-14 (2018)	Determination of Draindown Characteristics in Uncompacted Asphalt Mixtures
T 308-18	Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method
T 312-19	Preparing and Determining the Density of Asphalt Mixture Specimens by Means of the Superpave Gyratory Compactor
T 313-19	Determining the Flexural Creep Stiffness of Asphalt Binder Using the Bending Beam Rheometer (BBR)
T 314-12 (2016)	Determining the Fracture Properties of Asphalt Binder in Direct Tension (DT)
T 315-19	Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)
T 316-19	Viscosity Determination of Asphalt Binder Using Rotational Viscometer
T 319-15 (2019)	Quantitative Extraction and Recovery of Asphalt Binder from Asphalt Mixtures
T 320-07 (2016)	Determining the Permanent Shear Strain and Stiffness of Asphalt Mixtures Using the Superpave Shear Tester (SST)
T 321-17	Determining the Fatigue Life of Compacted Asphalt Mixtures Subjected to Repeated Flexural Bending
T 322-07 (2016)	Determining the Creep Compliance and Strength of Hot Mix Asphalt (HMA) Using the Indirect Tensile Test Device
T 324-19	Hamburg Wheel-Track Testing of Compacted Asphalt Mixtures
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T 302-15 (2019)	Polymer Content of Polymer-Modified Emulsified Asphalt Residue and Asphalt Binders
T 303-00 (2017)	Accelerated Detection of Potentially Deleterious Expansion of Mortar Bars Due to Alkali-Silica Reaction
T 304-17	Uncompacted Void Content of Fine Aggregate
T 305-14 (2018)	Determination of Draindown Characteristics in Uncompacted Asphalt Mixtures
T 306-11 (2019)	Progressing Auger Borings for Geotechnical Explorations
T 307-99 (2017)	Determining the Resilient Modulus of Soils and Aggregate Materials
T 308-18	Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method
T 309-15 (2019)	Temperature of Freshly Mixed Portland Cement Concrete
T 310-19	In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
T 311-00 (2019)	Grain-Size Analysis of Granular Soil Materials
T 312-19	Preparing and Determining the Density of Asphalt Mixture Specimens by Means of the Superpave Gyrotory Compactor
T 313-19	Determining the Flexural Creep Stiffness of Asphalt Binder Using the Bending Beam Rheometer (BBR)
T 314-12 (2016)	Determining the Fracture Properties of Asphalt Binder in Direct Tension (DT)
T 315-19	Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)

Number	Title
T 316-9	Viscosity Determination of Asphalt Binder Using Rotational Viscometer
T 317-04 (2018)	Prediction of Asphalt-Bound Pavement Layer Temperatures
T 318-15 (2019)	Water Content of Freshly Mixed Concrete Using Microwave Oven Drying
T 319-15 (2019)	Quantitative Extraction and Recovery of Asphalt Binder from Asphalt Mixtures
T 320-07 (2016)	Determining the Permanent Shear Strain and Stiffness of Asphalt Mixtures Using the Superpave Shear Tester (SST)
T 321-17	Determining the Fatigue Life of Compacted Asphalt Mixtures Subjected to Repeated Flexural Bending
T 322-07 (2016)	Determining the Creep Compliance and Strength of Hot Mix Asphalt (HMA) Using the Indirect Tensile Test Device
T 323-03 (2016)	Determining the Shear Strength at the Interface of Bonded Layers of Portland Cement Concrete
T 324-19	Hamburg Wheel-Track Testing of Compacted Asphalt Mixtures
T 325-04 (2016)	Estimating the Strength of Concrete in Transportation Construction by Maturity Tests
T 326-05 (2018)	Uncompacted Void Content of Coarse Aggregate (As Influenced by Particle Shape, Surface Texture, and Grading)
T 327-12 (2016)	Resistance of Coarse Aggregate to Degradation by Abrasion in the Micro-Deval Apparatus
T 329-15 (2019)	Moisture Content of Asphalt Mixtures by Oven Method
T 330-07 (2019)	The Qualitative Detection of Harmful Clays of the Smectite Group in Aggregates Using Methylene Blue
T 331-13 (2017)	Bulk Specific Gravity (G_{mb}) and Density of Compacted Asphalt Mixtures Using Automatic Vacuum Sealing Method
T 332-07 (2016)	Determining Chloride Ions in Concrete and Concrete Materials by Specific Ion Probe
T 333-07 (2017)	Linear Coefficient of Shrinkage on Cure of Adhesive Systems
T 334-08 (2016)	Estimating the Cracking Tendency of Concrete
T 335-09 (2018)	Determining the Percentage of Fracture in Coarse Aggregate
T 336-15 (2019)	Coefficient of Thermal Expansion of Hydraulic Cement Concrete
T 337-09 (2019)	Non-Instrumental Determination of Metallic Zinc in Zinc-Rich Primers
T 338-09 (2019)	Analysis of Structural Steel Coatings for Hindered Amine Light Stabilizer (HALS)
T 339-10 (2019)	Analysis of Structural Steel Coatings for Isocyanate Content
T 340-10 (2019)	Determining Rutting Susceptibility of Hot Mix Asphalt (HMA) Using the Asphalt Pavement Analyzer (APA)

Number	Title
T 341-10 (2019)	Determination of Compression Capacity for Profile Wall Plastic Pipe by Stub Compression Loading
T 342-11 (2019)	Determining Dynamic Modulus of Hot Mix Asphalt (HMA)
T 343-12 (2016)	Density of In-Place Hot Mix Asphalt (HMA) Pavement by Electronic Surface Contact Devices
T 344-12 (2016)	Evaluation of Superpave Gyrotory Compactor (SGC) Internal Angle of Gyration Using Simulated Loading
T 345-12 (2016)	Passing Ability of Self-Consolidating Concrete (SCC) by J-Ring
T 346-13 (2017)	Glass Beads Used in Pavement Markings
T 347-13 (2017)	Slump Flow of Self-Consolidating Concrete (SCC)
T 348-13 (2018)	Air-Void Characteristics of Freshly Mixed Concrete by Buoyancy Change
T 349-13 (2017)	Filling Capacity of Self-Consolidating Concrete Using the Caisson Test
T 350-19	Multiple Stress Creep Recovery (MSCR) Test of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)
T 351-14 (2018)	Visual Stability Index (VSI) of Self-Consolidating Concrete (SCC)
T 352-14 (2018)	Determining Formwork Pressure of Fresh Self-Consolidating Concrete (SCC) Using Pressure Transducers
T 353-14 (2018)	Particle Size Analysis of Hydraulic Cement and Related Materials by Light Scattering
T 354-17	Specific Gravity and Absorption of Aggregate by Volumetric Immersion Method
T 355-18	In-Place Density of Asphalt Mixtures by Nuclear Methods
T 356-15 (2019)	Determining Air Content of Hardened Portland Cement Concrete by High-Pressure Air Meter
T 357-15 (2019)	Predicting Chloride Penetration of Hydraulic Cement Concrete by the Rapid Migration Procedure
T 358-19	Surface Resistivity Indication of Concrete's Ability to Resist Chloride Ion Penetration
T 359M/T 359-18	Pavement Thickness by Magnetic Pulse Induction
T 360-16	Measurement of Tire/Pavement Noise Using the On-Board Sound Intensity (OBSI) Method
T 361-16	Determining Asphalt Binder Bond Strength by Means of the Binder Bond Strength (BBS) Test
T 362-17	Quantitative Determination of the Percentage of Lime in Asphalt Mixtures
T 363-17	Evaluating Stress Development and Cracking Potential due to Restrained Volume Change Using a Dual Ring Test
T 364-17	Determination of Composite Activation Energy of Aggregates due to Alkali-Silica Reaction (Chemical Method)

Number	Title
T 365-17	Quantifying Calcium Oxychloride Amounts in Cement Pastes Exposed to Deicing Salts
T 366-18	Apparent Viscosity of Hot-Poured Asphalt Crack Sealant Using Rotational Viscometer
T 367-17	<i>Reclassified</i> —Accelerated Aging of Hot-Poured Asphalt Crack Sealant Using a Vacuum Oven
T 368-17	Measuring Low-Temperature Flexural Creep Stiffness of Hot-Poured Asphalt Crack Sealant by Bending Beam Rheometer (BBR)
T 369-17	Evaluation of the Low-Temperature Tensile Property of Hot-Poured Asphalt Crack Sealant by Direct Tension Test
T 370-18	Measuring Adhesion of Hot-Poured Asphalt Crack Sealant Using Direct Adhesion Tester
T 371-17	Measuring Interfacial Fracture Energy of Hot-Poured Asphalt Crack Sealant Using a Blister Test
T 372M/T 372-17	Sensitivity of Stainless Steel to Intergranular Attack
T 373M/T 373-17	Comparative Qualitative Corrosion Characterization of Steel Bars Used for Concrete Reinforcement (Linear Polarization Resistance and Potentiodynamic Polarization Tests)
T 374M/T 374-17	Comparative Qualitative Corrosion Characterization of Uncoated Chromium-Alloyed Steel Bars Used for Concrete Reinforcement (Tombstone Test)
T 375M/T 375-17	Identification of Iron-Based Alloy Steel Bars for Concrete Reinforcement or Dowels by Handheld X-Ray Fluorescence (XRF) Spectrometer
T 376M/T 376-17	Microcell Slab Chloride Threshold
T 377-17	Detecting the Presence of Phosphorus in Asphalt Binder
T 378-17	Determining the Dynamic Modulus and Flow Number for Asphalt Mixtures Using the Asphalt Mixture Performance Tester (AMPT)
T 379-18	Nonlinear Impact Resonance Acoustic Spectroscopy (NIRAS) for Concrete Specimens with Damage from Alkali-Silica Reaction (ASR)
T 380-19	Potential Alkali Reactivity of Aggregates and Effectiveness of ASR Mitigation Measures (Miniature Concrete Prism Test, MCPT)
T 381-18	Determining Aggregate Shape Properties by Means of Digital Image Analysis
T 382-18	Determining the Viscosity of Emulsified Asphalt by a Rotational Paddle Viscometer
T 383-19	Evaluation of Asphalt Release Agents (ARAs)
T 384-19	Protective Sealers for Portland Cement Concrete
T 385-19	Deep Foundation Elements under Bidirectional Static Axial Compressive Load
T 386-19	Rapid Axial Compressive Load Testing of Deep Foundation Units
T 387-19	Determining the Cracking Temperature of Asphalt Binder Using the Asphalt Binder Cracking Device (ABCD)

LIST OF TECHNICAL CHANGES—PART 2

The balloted technical changes listed below are also indicated in the specifications by a change bar in the left margin and by highlighted text (for additions) or struck-through (for deletions) text. Unballoted editorial changes do not receive the change bar, highlighting, or strike-through; however, any standard that is neither revised nor reconfirmed but contains such changes does include an endnote stating that minor editorial revisions have been made.

Release: Group 3 (July 2019)

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
T 21M/T21-15 (2019)	Organic Impurities in Fine Aggregates for Concrete	1c	Reconfirmed for 2019 publication.
T 30-19	Mechanical Analysis of Extracted Aggregate	2c	Revised to move the information about overloading sieves and the minimum time requirement to an annex and clarify the calculations section.
T 49-15 (2019)	Penetration of Bituminous Materials	2b	Reconfirmed for 2019 publication.
T 72-10 (2019)	Saybolt Viscosity	2a	Reconfirmed for 2019 publication.
T 78-15 (2019)	Distillation of Cutback Asphalt Products	2a	Reconfirmed for 2019 publication.
T 88-19	Particle Size Analysis of Soils	1a	Revised to move the first sentence in Note 6 to the last sentence in Section 12.1 to make it mandatory language and part of the procedure.
T 96-02 (2019)	Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	1c	Reconfirmed for 2019 publication.
T 99-19	Moisture–Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop	1b	Revised Sections 5.4 and 9.4 to address extruder.
T 100-15 (2019)	Specific Gravity of Soils	1a	Reconfirmed for 2019 publication.
T 111-11 (2019)	Mineral Matter or Ash in Asphalt Materials	2b	Reconfirmed for 2019 publication.
T 134-19	Moisture–Density Relations of Soil–Cement Mixtures	1b	Revised in multiple areas for clarification and to align with T 99 and T 180.

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<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
T 167-10 (2019)	Compressive Strength of Hot Mix Asphalt	2d	Reconfirmed for 2019 publication.
T 168-03 (2016)	Sampling Bituminous Paving Mixtures	2c	Revised AASHTO standard T 168 and reclassified from a standard method of test to a standard practice, R 97.
T 180-19	Moisture–Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop	1b	Revised Sections 5.4 and 9.4 to address extruder.
T 201-15 (2019)	Kinematic Viscosity of Asphalts (Bitumens)	2b	Reconfirmed for 2019 publication.
T 202-15 (2019)	Viscosity of Asphalts by Vacuum Capillary Viscometer	2b	Reconfirmed for 2019 publication.
T 206-19	Penetration Test and Split-Barrel Sampling of Soils	1b	Revised to harmonize with ASTM D1168.
T 208-15 (2019)	Unconfined Compressive Strength of Cohesive Soil	1a	Reconfirmed for 2019 publication.
T 209-19	Theoretical Maximum Specific Gravity (G_{mm}) and Density of Asphalt Mixtures	2c	Revised extensively to move the standardization procedure to an annex and eliminate the water temperature adjustment, among other changes.
T 210-15 (2019)	Aggregate Durability Index	1c	Reconfirmed for 2019 publication.
T 233-02 (2019)	Density of Soil In-Place by Block, Chunk, or Core Sampling	1a	Reconfirmed for 2019 publication.
T 245-15 (2019)	Resistance to Plastic Flow of Asphalt Mixtures Using Marshall Apparatus	2d	Reconfirmed for 2019 publication.
T 246-10 (2019)	Resistance to Deformation and Cohesion of Hot Mix Asphalt (HMA) by Means of Hveem Apparatus	2d	Reconfirmed for 2019 publication.
T 247-10 (2019)	Preparation of Test Specimens of Hot Mix Asphalt (HMA) by Means of California Kneading Compactor	2d	Reconfirmed for 2019 publication.
T 252-19	Measurements of Pore Pressures in Soils	1b	Revised to add Reports section.
T 265-15 (2019)	Laboratory Determination of Moisture Content of Soils	1a	Reconfirmed for 2019 publication.
T 298-15 (2019)	High-Strain Dynamic Testing of Piles	1b	Reconfirmed for 2019 publication.
T 302-15 (2019)	Polymer Content of Polymer-Modified Emulsified Asphalt Residue and Asphalt Binders	2a	Reconfirmed for 2019 publication.

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
T 306-11 (2019)	Progressing Auger Borings for Geotechnical Explorations	1b	Reconfirmed for 2019 publication.
T 310-19	In-Place Density and Moisture Content of Soil and Soil–Aggregate by Nuclear Methods (Shallow Depth)	1b	Revised to remove the requirement to record the actual date of last calibration or calibration verification on each report.
T 311-00 (2019)	Grain-Size Analysis of Granular Soil Materials	1a	Reconfirmed for 2019 publication.
T 312-19	Preparing and Determining the Density of Asphalt Mixture Specimens by Means of the Superpave Gyrotory Compactor	2d	Revised Sections 8 and 9 for clarity.
T 313-19	Determining the Flexural Creep Stiffness of Asphalt Binder Using the Bending Beam Rheometer (BBR)	2b	Revised to update the precision estimates.
T 315-19	Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)	2b	Revised to update the precision estimates.
T 316-19	Viscosity Determination of Asphalt Binder Using Rotational Viscometer	2b	Revised to update the precision estimates.
T 319-15 (2019)	Quantitative Extraction and Recovery of Asphalt Binder from Asphalt Mixtures	2c	Reconfirmed for 2019 publication.
T 324-19	Hamburg Wheel-Track Testing of Compacted Asphalt Mixtures	2c	Revised to add more detail on the device and impression measurement system requirements and to add an annex for measuring the width of the wheel.
T 329-15 (2019)	Moisture Content of Asphalt Mixtures by Oven Method	2c	Reconfirmed for 2019 publication.
T 330-07 (2019)	The Qualitative Detection of Harmful Clays of the Smectite Group in Aggregates Using Methylene Blue	1c	Reconfirmed for 2019 publication.
T 340-10 (2019)	Determining Rutting Susceptibility of Hot Mix Asphalt (HMA) Using the Asphalt Pavement Analyzer (APA)	2d	Reconfirmed for 2019 publication.
T 342-11 (2019)	Determining Dynamic Modulus of Hot Mix Asphalt (HMA)	2d	Reconfirmed for 2019 publication.
T 350-19	Multiple Stress Creep Recovery (MSCR) Test of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)	2b	Revised to add precision estimates in Section 10.
T 383-19	Evaluation of Asphalt Release Agents (ARAs)	2b	Revised to add new pictures as well as minor revisions throughout.

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
T 385-19	Deep Foundation Elements under Bidirectional Static Axial Compressive Load	1b	Adopted AASHTO Provisional standard TP 100 as a full standard method of test, T 385.
T 386-19	Rapid Axial Compressive Load Testing of Deep Foundation Units	1b	Adopted AASHTO Provisional standard TP 104 as a full standard method of test, T 386.
T 387-19	Determining the Cracking Temperature of Asphalt Binder Using the Asphalt Binder Cracking Device (ABCD)	2b	Adopted AASHTO Provisional standard TP 92 as a full standard method of test, T 387.

Release: Group 2 (June 2019)

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
T 65M/T 65-19	Mass [Weight] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings	4f	Revised to maintain equivalency with ASTM A90/A90M.
T 213M/T 213-11 (2019)	Mass [Weight] of Coating on Aluminum-Coated Iron or Steel Articles	4f	Reconfirmed for 2019 publication.
T 237-05 (2019)	Testing Epoxy Resin Adhesive	4c	Reconfirmed for 2019 publication.
T 243M/T 243-19	Sampling Procedure for Impact Testing of Structural Steel	4f	Revised to maintain equivalency with ASTM A673/A673M.
T 250-05 (2019)	Thermoplastic Traffic Line Material	4c	Reconfirmed for 2019 publication.
T 285-89 (2019)	Bend Test for Bars for Concrete Reinforcement	4f	Reconfirmed for 2019 publication.
T 337-09 (2019)	Non-Instrumental Determination of Metallic Zinc in Zinc-Rich Primers	4c	Reconfirmed for 2019 publication.
T 338-09 (2019)	Analysis of Structural Steel Coatings for Hindered Amine Light Stabilizer (HALS)	4c	Reconfirmed for 2019 publication.
T 339-10 (2019)	Analysis of Structural Steel Coatings for Isocyanate Content	4c	Reconfirmed for 2019 publication.

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
T 341-10 (2019)	Determination of Compression Capacity for Profile Wall Plastic Pipe by Stub Compression Loading	4b	Reconfirmed for 2019 publication.
T 367-17	Accelerated Aging of Hot-Poured Asphalt Crack Sealant Using a Vacuum Oven	4e	Reclassified AASHTO standard T 367 after revising from a standard method of test to a standard practice, R 95.
T 384-19	Protective Sealers for Portland Cement Concrete	3c	Adopted AASHTO Provisional standard TP 96 as a full standard method of test, T 384.

Release: Group 1 (April 2019)

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
T 24M/T 24-15 (2019)	Obtaining and Testing Drilled Cores and Sawed Beams of Concrete	3c	Reconfirmed for 2019 publication.
T 121M/T 121-19	Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete	3b	Revised internal vibrators in Section 4.3 to concur with T 23.
T 133-19	Density of Hydraulic Cement	3a	Revised to maintain equivalency with ASTM C188.
T 148-15 (2019)	Measuring Length of Drilled Concrete Cores	3c	Reconfirmed for 2019 publication.
T 152-19	Air Content of Freshly Mixed Concrete by the Pressure Method	3b	Revised internal vibrators in Section 4.15 to concur with T 23.
T 158-11 (2019)	Bleeding of Concrete	3b	Reconfirmed for 2019 publication.
T 178-15 (2019)	Portland-Cement Content of Hardened Hydraulic-Cement Concrete	3c	Reconfirmed for 2019 publication.
T 192-19	Fineness of Hydraulic Cement by the 45- μ m (No. 325) Sieve	3a	Revised to maintain equivalency with ASTM C430.
T 196M/T 196-11 (2019)	Air Content of Freshly Mixed Concrete by the Volumetric Method	3b	Reconfirmed for 2019 publication.
T 197M/T 197-11 (2019)	Time of Setting of Concrete Mixtures by Penetration Resistance	3b	Reconfirmed for 2019 publication.

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
T 198-15 (2019)	Splitting Tensile Strength of Cylindrical Concrete Specimens	3c	Reconfirmed for 2019 publication.
T 277-15 (2019)	Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration	3c	Reconfirmed for 2019 publication.
T 282-01 (2019)	Calibrating a Wheel Force or Torque Transducer Using a Calibration Platform (User Level)	5a	Reconfirmed for 2019 publication.
T 309-15 (2019)	Temperature of Freshly Mixed Portland Cement Concrete	3b	Reconfirmed for 2019 publication.
T 318-15 (2019)	Water Content of Freshly Mixed Concrete Using Microwave Oven Drying	3b	Reconfirmed for 2019 publication.
T 336-15 (2019)	Coefficient of Thermal Expansion of Hydraulic Cement Concrete	3c	Reconfirmed for 2019 publication.
T 356-15 (2019)	Determining Air Content of Hardened Portland Cement Concrete by High-Pressure Air Meter	3c	Reconfirmed for 2019 publication.
T 357-15 (2019)	Predicting Chloride Penetration of Hydraulic Cement Concrete by the Rapid Migration Procedure	3c	Reconfirmed for 2019 publication.
T 358-19	Surface Resistivity Indication of Concrete's Ability to Resist Chloride Ion Penetration	3c	Revised precision statements.
T 380-19	Potential Alkali Reactivity of Aggregates and Effectiveness of ASR Mitigation Measures (Miniature Concrete Prism Test, MCPT)	3c	Revised a mold size in Section 4.1.1.

PART 3—AASHTO PROVISIONAL STANDARDS SUBJECT SEQUENCE TABLE OF CONTENTS

Number	Title
AGGREGATES	
TP 120-16 (2018)	Pore Index for Carbonate Coarse Aggregate
BITUMINOUS MATERIALS	
MP 23-15 (2018)	Reclaimed Asphalt Shingles for Use in Asphalt Mixtures
MP 25-18 (2019)	Performance-Graded Hot-Poured Asphalt Crack Sealant
MP 26-15 (2019)	Cotton Duck Fabric Bridge Bearings
MP 27-16 (2018)	Materials for Emulsified Asphalt Chip Seals
MP 28-17 (2018)	Materials for Micro Surfacing
MP 31-17	Materials for Cold Recycled Mixtures with Emulsified Asphalt
MP 32-17 (2019)	Materials for Slurry Seal
MP 33-17 (2019)	Materials for Emulsified Asphalt Fog Seal
MP 36-18	Materials for Asphalt Tack Coat
MP 37-18	Performance-Graded Asphalt Binder for Surface Treatments
MP 38-18	Mix Design of Cold Recycled Mixture with Foamed Asphalt
PP 76-13 (2019)	Troubleshooting Asphalt Specimen Volumetric Differences between Superpave Gyrotory Compactors (SCGs) Used in the Design and the Field Management of Superpave Mixtures
PP 77-14 (2018)	Materials Selection and Mixture Design of Permeable Friction Courses (PFCs)
PP 78-17	Design Considerations When Using Reclaimed Asphalt Shingles (RAS) in Asphalt Mixtures
PP 82-16 (2018)	Emulsified Asphalt Chip Seal Design
PP 83-16 (2018)	Micro Surfacing Design
PP 85-18 (2019)	Grading or Verifying the Sealant Grade (SG) of a Hot-Poured Asphalt Crack Sealant
PP 86-17	Emulsified Asphalt Content of Cold Recycled Mixture Designs
PP 87-17 (2019)	Slurry Seal Design
PP 88-17 (2019)	Emulsified Asphalt Fog Seal Design
PP 93-18	Asphalt Tack Coat Design
PP 94-18	Determining Optimum Asphalt Content of Cold Recycled Mixture with Foamed Asphalt

Number	Title
PP 95-18	Preparation of Indirect Tension Performance Test Specimens
PP 96-18	Developing Dynamic Modulus Master Curves for Hot Mix Asphalt (HMA) Using the Indirect Tension Testing Method
PP 99-19	Preparation of Small Cylindrical Performance Test Specimens Using the Superpave Gyrotory Compactor (SGC) or Field Cores
TP 92-14 (2018)	<i>Adopted</i> —Determining the Cracking Temperature of Asphalt Binder Using the Asphalt Binder Cracking Device (ABCD)
TP 101-12 (2018)	Estimating Fatigue Resistance of Asphalt Binders Using the Linear Amplitude Sweep
TP 105-13 (2019)	Determining the Fracture Energy of Asphalt Mixtures Using the Semicircular Bend Geometry (SCB)
TP 107-18	Determining the Damage Characteristic Curve of Asphalt Mixtures from Direct Tension Cyclic Fatigue Tests
TP 108-14 (2018)	Abrasion Loss of Asphalt Mixture Specimens
TP 113-15 (2019)	Determination of Asphalt Binder Resistance to Ductile Failure Using Double-Edge-Notched Tension (DENT) Test
TP 114-18 (2019)	Determining the Interlayer Shear Strength (ISS) of Asphalt Pavement Layers
TP 115-16 (2019)	Determining the Quality of Tack Coat Adhesion to the Surface of an Asphalt Pavement in the Field or Laboratory
TP 116-15 (2019)	Rutting Resistance of Asphalt Mixtures Using Incremental Repeated Load Permanent Deformation (iRLPD)
TP 117-15 (2019)	Determination of the Voids of Dry Compacted Filler
TP 122-16 (2018)	Determination of Performance Grade of Physically Aged Asphalt Binder Using Extended Bending Beam Rheometer (BBR) Method
TP 123-16 (2018)	Measuring Asphalt Binder Yield Energy and Elastic Recovery Using the Dynamic Shear Rheometer
TP 124-18	Determining the Fracture Potential of Asphalt Mixtures Using Semicircular Bend Geometry (SCB) at Intermediate Temperature
TP 125-16 (2018)	Determining the Flexural Creep Stiffness of Asphalt Mixtures Using the Bending Beam Rheometer (BBR)
TP 126-18 (2019)	Evaluation of the Tracking Resistance of Hot-Poured Asphalt Crack Sealant by Dynamic Shear Rheometer (DSR)
TP 127-17 (2019)	Determining the Fracture Energy Density of Asphalt Binder Using the Binder Fracture Energy (BFE) Test
TP 128-17 (2019)	Evaluation of Oxidation Level of Asphalt Mixtures by a Portable Infrared Spectrometer
TP 131-18	Determining Dynamic Modulus of Asphalt Concrete Using the Indirect Tension Test

Number	Title
TP 132-19	Determining the Dynamic Modulus for Asphalt Mixtures Using Small Specimens in the Asphalt Mixture Performance Tester (AMPT)
TP 133-19	Determining the Damage Characteristic Curve and Failure Criterion Using Small Specimens in the Asphalt Mixture Performance Tester (AMPT) Cyclic Fatigue Test
TP 134-19	Stress Sweep Rutting (SSR) Test Using Asphalt Mixture Performance Tester (AMPT)

BOX CULVERT, CULVERT PIPE, AND DRAIN TILE

MP 22-13 (2019)	Fiber-Reinforced Polymer Composite Materials for Highway and Bridge Structures
MP 40-19	Steel-Reinforced Polyethylene (PE) Ribbed Pipe 1650- to 3000-mm (66- to 120-in.) Diameter

CONCRETE

PP 84-19	Performance Engineered Concrete Pavement Mixtures
PP 89-19	Grinding the Ends of Cylindrical Concrete Specimens
TP 118-17 (2018)	Characterization of the Air-Void System of Freshly Mixed Concrete by the Sequential Pressure Method
TP 119-15 (2019)	Electrical Resistivity of a Concrete Cylinder Tested in a Uniaxial Resistance Test
TP 129-18	Vibrating Kelly Ball (VKelly) Penetration in Fresh Portland Cement Concrete

METALLIC MATERIALS AND COATINGS FOR BRIDGES

None

MISCELLANEOUS

PP 80-18	Continuous Thermal Profile of Asphalt Mixture Construction
PP 81-18	Intelligent Compaction Technology for Embankment and Asphalt Pavement Applications
TP 96-13 (2018)	<i>Adopted</i> —Protective Sealers for Portland Cement Concrete
TP 103-19	Detectable Warning Systems

PAINTING AND TRAFFIC MARKING AND SIGNING

MP 24-15 (2018)	Waterborne White and Yellow Traffic Paints
PP 74-19	Determination of Size and Shape of Glass Beads Used in Traffic Markings by Means of Computerized Optical Method
TP 106-13 (2019)	Determination of Heavy Metal Content of Glass Beads Using X-Ray Fluorescence (XRF)

Number	Title
TP 111-14 (2018)	Measuring Retroreflectivity of Pavement Marking Materials Using a Mobile Retroreflectivity Unit
TP 130-18	Producing Draw Down Panels and Measuring the Coefficient of Retroreflected Luminance (RL) of Pavement Markings in a Laboratory Panel

PAVEMENT SURFACE AND STRUCTURE CHARACTERISTICS

MP 34-18	Materials for Sand Seals
MP 35-18	Thin Overlay Treatments Using a Binder Resin System and Aggregate for Concrete Surfaces
MP 41-19	High Friction Surface Treatment for Asphalt and Concrete Pavements using Calcined Bauxite
PP 79-14 (2016)	<i>Discontinued</i> —High-Friction Surface Treatment for Asphalt and Concrete Pavements
PP 90-18	Sand Seal Design
PP 91-18	Emulsified Asphalt Scrub Seal Design
TP 98-18	Determining the Influence of Road Surfaces on Vehicle Noise Using the Statistical Isolated Pass-By Method (SIP)
TP 99-18	Determining the Influence of Road Surfaces on Traffic Noise Using the Continuous-Flow Traffic Time-Integrated Method (CTIM)

QUALITY ASSURANCE

MP 39-19	File Format of Intelligent Compaction Data
PP 73-13 (2018)	<i>Adopted</i> —Quality Assurance, Job Site Quality Control, and Reapplication of Protective Sealers for Portland Cement Concrete
PP 97-19	Determination of Constant Mass
PP 98-19	Asphalt Surface Dielectric Profiling System Using Ground Penetrating Radar

SOILS

PP 92-19	Preparation of Test Specimens Using the Plastic Mold Compaction Device
TP 100-12 (2018)	<i>Adopted</i> —Deep Foundation Elements under Bidirectional Static Axial Compressive Load
TP 104-13 (2015)	<i>Adopted</i> —Rapid Axial Compressive Load Testing of Deep Foundation Units
TP 112-19	Determining In-Place Density and Moisture Content of Soil and Soil–Aggregate Using Complex Impedance Methodology

PART 3—AASHTO PROVISIONAL STANDARDS NUMERICAL SEQUENCE TABLE OF CONTENTS

Number	Title
MP 22-13 (2019)	Fiber-Reinforced Polymer Composite Materials for Highway and Bridge Structures
MP 23-15 (2018)	Reclaimed Asphalt Shingles for Use in Asphalt Mixtures
MP 24-15 (2018)	Waterborne White and Yellow Traffic Paints
MP 25-18 (2019)	Performance-Graded Hot-Poured Asphalt Crack Sealant
MP 26-15 (2019)	Cotton Duck Fabric Bridge Bearings
MP 27-16 (2018)	Materials for Emulsified Asphalt Chip Seals
MP 28-17 (2018)	Materials for Micro Surfacing
MP 31-17	Materials for Cold Recycled Mixtures with Emulsified Asphalt
MP 32-17	Materials for Slurry Seal
MP 33-17	Materials for Emulsified Asphalt Fog Seal
MP 34-18	Materials for Sand Seals
MP 35-18	Thin Overlay Treatments Using a Binder Resin System and Aggregate for Concrete Surfaces
MP 36-18	Materials for Asphalt Tack Coat
MP 37-18	Performance-Graded Asphalt Binder for Surface Treatments
MP 38-18	Mix Design of Cold Recycled Mixture with Foamed Asphalt
MP 39-19	File Format of Intelligent Compaction Data
MP 40-19	Steel-Reinforced Polyethylene (PE) Ribbed Pipe 1650- to 3000-mm (66- to 120-in.) Diameter
MP 41-19	High Friction Surface Treatment for Asphalt and Concrete Pavements using Calcined Bauxite
PP 73-13 (2018)	<i>Adopted</i> —Quality Assurance, Job Site Quality Control, and Reapplication of Protective Sealers for Portland Cement Concrete
PP 74-19	Determination of Size and Shape of Glass Beads Used in Traffic Markings by Means of Computerized Optical Method
PP 76-13 (2019)	Troubleshooting Asphalt Specimen Volumetric Differences between Superpave Gyratory Compactors (SCGs) Used in the Design and the Field Management of Superpave Mixtures
PP 77-14 (2018)	Materials Selection and Mixture Design of Permeable Friction Courses (PFCs)
PP 78-17	Design Considerations When Using Reclaimed Asphalt Shingles (RAS) in Asphalt Mixtures
PP 79-14 (2016)	<i>Discontinued</i> —High-Friction Surface Treatment for Asphalt and Concrete Pavements

Number	Title
PP 80-18	Continuous Thermal Profile of Asphalt Mixture Construction
PP 81-18	Intelligent Compaction Technology for Embankment and Asphalt Pavement Applications
PP 82-16 (2018)	Emulsified Asphalt Chip Seal Design
PP 83-16 (2018)	Micro Surfacing Design
PP 84-19	Performance Engineered Concrete Pavement Mixtures
PP 85-18 (2019)	Grading or Verifying the Sealant Grade (SG) of a Hot-Poured Asphalt Crack Sealant
PP 86-17	Emulsified Asphalt Content of Cold Recycled Mixture Designs
PP 87-17	Slurry Seal Design
PP 88-17	Emulsified Asphalt Fog Seal Design
PP 89-19	Grinding the Ends of Cylindrical Concrete Specimens
PP 90-18	Sand Seal Design
PP 91-18	Emulsified Asphalt Scrub Seal Design
PP 92-19	Preparation of Test Specimens Using the Plastic Mold Compaction Device
PP 93-18	Asphalt Tack Coat Design
PP 94-18	Determining Optimum Asphalt Content of Cold Recycled Mixture with Foamed Asphalt
PP 95-18	Preparation of Indirect Tension Performance Test Specimens
PP 96-18	Developing Dynamic Modulus Master Curves for Hot Mix Asphalt (HMA) Using the Indirect Tension Testing Method
PP 97-19	Determination of Constant Mass
PP 98-19	Asphalt Surface Dielectric Profiling System Using Ground Penetrating Radar
PP 99-19	Preparation of Small Cylindrical Performance Test Specimens Using the Superpave Gyrotory Compactor (SGC) or Field Cores
TP 92-14 (2018)	<i>Adopted</i> —Determining the Cracking Temperature of Asphalt Binder Using the Asphalt Binder Cracking Device (ABCD)
TP 96-13 (2018)	<i>Adopted</i> —Protective Sealers for Portland Cement Concrete
TP 98-18	Determining the Influence of Road Surfaces on Vehicle Noise Using the Statistical Isolated Pass-By Method (SIP)
TP 99-18	Determining the Influence of Road Surfaces on Traffic Noise Using the Continuous-Flow Traffic Time-Integrated Method (CTIM)
TP 100-12 (2018)	<i>Adopted</i> —Deep Foundation Elements under Bidirectional Static Axial Compressive Load
TP 101-12 (2018)	Estimating Fatigue Resistance of Asphalt Binders Using the Linear Amplitude Sweep
TP 103-19	Detectable Warning Systems

Number	Title
TP 104-13 (2015)	<i>Adopted</i> —Rapid Axial Compressive Load Testing of Deep Foundation Units
TP 105-13 (2019)	Determining the Fracture Energy of Asphalt Mixtures Using the Semicircular Bend Geometry (SCB)
TP 106-13 (2019)	Determination of Heavy Metal Content of Glass Beads Using X-Ray Fluorescence (XRF)
TP 107-18	Determining the Damage Characteristic Curve of Asphalt Mixtures from Direct Tension Cyclic Fatigue Tests
TP 108-14 (2018)	Abrasion Loss of Asphalt Mixture Specimens
TP 111-14 (2018)	Measuring Retroreflectivity of Pavement Marking Materials Using a Mobile Retroreflectivity Unit
TP 112-19	Determining In-Place Density and Moisture Content of Soil and Soil–Aggregate Using Complex Impedance Methodology
TP 113-15 (2019)	Determination of Asphalt Binder Resistance to Ductile Failure Using Double-Edge-Notched Tension (DENT) Test
TP 114-18 (2019)	Determining the Interlayer Shear Strength (ISS) of Asphalt Pavement Layers
TP 115-16 (2019)	Determining the Quality of Tack Coat Adhesion to the Surface of an Asphalt Pavement in the Field or Laboratory
TP 116-15 (2019)	Rutting Resistance of Asphalt Mixtures Using Incremental Repeated Load Permanent Deformation (iRLPD)
TP 117-15 (2019)	Determination of the Voids of Dry Compacted Filler
TP 118-17 (2018)	Characterization of the Air-Void System of Freshly Mixed Concrete by the Sequential Pressure Method
TP 119-15 (2019)	Electrical Resistivity of a Concrete Cylinder Tested in a Uniaxial Resistance Test
TP 120-16 (2018)	Pore Index for Carbonate Coarse Aggregate
TP 122-16 (2018)	Determination of Performance Grade of Physically Aged Asphalt Binder Using Extended Bending Beam Rheometer (BBR) Method
TP 123-16 (2018)	Measuring Asphalt Binder Yield Energy and Elastic Recovery Using the Dynamic Shear Rheometer
TP 124-18	Determining the Fracture Potential of Asphalt Mixtures Using Semicircular Bend Geometry (SCB) at Intermediate Temperature
TP 125-16 (2018)	Determining the Flexural Creep Stiffness of Asphalt Mixtures Using the Bending Beam Rheometer (BBR)
TP 126-18 (2019)	Evaluation of the Tracking Resistance of Hot-Poured Asphalt Crack Sealant by Dynamic Shear Rheometer (DSR)
TP 127-17 (2019)	Determining the Fracture Energy Density of Asphalt Binder Using the Binder Fracture Energy (BFE) Test

Number	Title
TP 128-17 (2019)	Evaluation of Oxidation Level of Asphalt Mixtures by a Portable Infrared Spectrometer
TP 129-18	Vibrating Kelly Ball (VKelly) Penetration in Fresh Portland Cement Concrete
TP 130-18	Producing Draw Down Panels and Measuring the Coefficient of Retroreflected Luminance (RL) of Pavement Markings in a Laboratory Panel
TP 131-18	Determining Dynamic Modulus of Asphalt Concrete Using the Indirect Tension Test
TP 132-19	Determining the Dynamic Modulus for Asphalt Mixtures Using Small Specimens in the Asphalt Mixture Performance Tester (AMPT)
TP 133-19	Determining the Damage Characteristic Curve and Failure Criterion Using Small Specimens in the Asphalt Mixture Performance Tester (AMPT) Cyclic Fatigue Test
TP 134-19	Stress Sweep Rutting (SSR) Test Using Asphalt Mixture Performance Tester (AMPT)

LIST OF TECHNICAL CHANGES—PART 3

The balloted technical changes listed below are also indicated in the specifications by a change bar in the left margin and by highlighted text (for additions) or struck-through text (for deletions). Unballoted editorial changes do not receive the change bar, highlighting, or strike-through; however, any standard that is neither revised nor reconfirmed but contains such changes does include an endnote stating that minor editorial revisions have been made.

Release: Group 3 (July 2019)

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
PP 76-13 (2019)	Rapid Axial Compressive Load Testing of Deep Foundation Units	2d	Extended.
PP 92-19	Preparation of Test Specimens Using the Plastic Mold Compaction Device	1b	Revised extensively.
PP 99-19	Preparation of Small Cylindrical Performance Test Specimens Using the Superpave Gyratory Compactor (SGC) or Field Cores	2d	New Provisional standard.
TP 92-14 (2018)	Determining the Cracking Temperature of Asphalt Binder Using the Asphalt Binder Cracking Device (ABCD)	2b	Adopted AASHTO Provisional standard TP 92 as standard practice, T 387.
TP 100-12 (2018)	Deep Foundation Elements under Bidirectional Static Axial Compressive Load	1b	Adopted AASHTO Provisional standard TP 100 as standard practice, T 385.
TP 104-13	Rapid Axial Compressive Load Testing of Deep Foundation Units	1b	Adopted AASHTO Provisional standard TP 104 as standard practice, T 386.
TP 105-13	Determining the Fracture Energy of Asphalt Mixtures Using the Semicircular Bend Geometry (SCB)	2d	Extended.
TP 112-19	Determining In-Place Density and Moisture Content of Soil and Soil–Aggregate Using Complex Impedance Methodology	1b	Revised extensively.
TP 113-15 (2019)	Determination of Asphalt Binder Resistance to Ductile Failure Using Double-Edge-Notched Tension (DENT) Test	2b	Reconfirmed for 2019 publication.
TP 114-18 (2019)	Determining the Interlayer Shear Strength (ISS) of Asphalt Pavement Layers	2c	Extended.
TP 115-16 (2019)	Determining the Quality of Tack Coat Adhesion to the Surface of an Asphalt Pavement in the Field or Laboratory	2c	Extended.

TP 116-15 (2019)	Rutting Resistance of Asphalt Mixtures Using Incremental Repeated Load Permanent Deformation (iRLPD)	2d	Extended.
TP 117-15 (2019)	Determination of the Voids of Dry Compacted Filler	2d	Extended.
TP 127-17 (2019)	Determining the Fracture Energy Density of Asphalt Binder Using the Binder Fracture Energy (BFE) Test	2b	Reconfirmed for 2019 publication.
TP 128-17 (2019)	Evaluation of Oxidation Level of Asphalt Mixtures by a Portable Infrared Spectrometer	2c	Extended.
TP 132-19	Determining the Dynamic Modulus for Asphalt Mixtures Using Small Specimens in the Asphalt Mixture Performance Tester (AMPT)	2d	New Provisional standard.
TP 133-19	Determining the Damage Characteristic Curve and Failure Criterion Using Small	2d	New Provisional standard.
TP 134-19	Stress Sweep Rutting (SSR) Test Using Asphalt Mixture Performance Tester (AMPT)	2d	New Provisional standard.

E:

Release: Group 2 (June 2019)

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
MP 25-18 (2019)	Performance-Graded Hot-Poured Asphalt Crack Sealant	4e	Reconfirmed for 2019 publication.
MP 26-15 (2019)	Cotton Duck Fabric Bridge Bearings	4e	Reconfirmed for 2019 publication.
MP 40-19	Steel-Reinforced Polyethylene (SRPE) Corrugated Pipe 300- to 1800-mm (12- to 72-in.) Diameter	4b	New Provisional standard.
MP 41-19	High Friction Surface Treatment for Asphalt and Concrete Pavements using Calcined Bauxite	4c	New Provisional standard.
PP 73-13 (2018)	Quality Assurance, Job Site Quality Control, and Reapplication of Protective Sealers for Portland Cement Concrete	4c	Adopted AASHTO Provisional standard PP 73 to standard practice, T 384.
PP 74-19	Determination of Size and Roundness of Glass Beads Used in Traffic Markings by Means of Computerized Optical Method	4c	Revised extensively.

PP 79-14 (2018)	High Friction Surface Treatment for Asphalt and Concrete Pavements	4c	Discontinued.
PP 85-18 (2019)	Grading or Verifying the Sealant Grade (SG) of a Hot-Poured Asphalt Crack Sealant	4e	Reconfirmed for 2019 publication.
TP 96-13 (2018)	Protective Sealers for Portland Cement Concrete	4c	Adopted AASHTO Provisional standard TP 96 to standard method of test, T 384.
TP 103-19	Detectable Warning Systems	4d	Revised with NTPEP (the National Transportation Product Evaluation Program).
TP 106-13 (2019)	Determination of Heavy Metal Content of Glass Beads Using X-Ray Fluorescence (XRF)	4c	Extended.
TP 126-18 (2019)	Evaluation of the Tracking Resistance of Hot-Poured Asphalt Crack Sealant by Dynamic Shear Rheometer (DSR)	4c	Reconfirmed for 2019 publication.

Release: Group 1 (April 2019)

<i>Designation Number</i>	<i>Title</i>	<i>Technical Subcommittee Number</i>	<i>Balloted Revisions</i>
MP 22-13 (2019)	Fiber-Reinforced Polymer Composite Materials for Highway and Bridge Structures	5b	Reconfirmed for 2019 publication.
MP 32-17 (2019)	Materials for Slurry Seal	5b	Reconfirmed for 2019 publication.
MP 33-17 (2019)	Materials for Emulsified Asphalt Fog Seal	5b	Reconfirmed for 2019 publication.
MP 39-19	File Format of Intelligent Compaction Data	5c	New Provisional standard.
PP 84-19	Developing Performance Engineered Concrete Pavement Mixtures	3c	Removed restrained shrinkage language, edited SAM criteria, and made other editorial clarifications.
PP 87-17 (2019)	Slurry Seal Design	5b	Reconfirmed for 2019 publication.
PP 88-17 (2019)	Emulsified Asphalt Fog Seal Design	5b	Reconfirmed for 2019 publication.
PP 89-19	Grinding the Ends of Cylindrical Concrete Specimens	3c	Revised Sections 1.2, 2.1, 3.4,4.1,5.1, 5.2, 5.3, 6.1, 6.5, and 6.6.
PP 97-19	Determination of Constant Mass	5c	New Provisional standard.

PP 98-19	Asphalt Surface Dielectric Profiling System Using Ground Penetrating Radar	5c	New Provisional standard.
TP 119-15 (2019)	Electrical Resistivity of a Concrete Cylinder Tested in a Uniaxial Resistance Test	3c	Reconfirmed for 2019 publication.

Provisional Standards—Current and Former

A searchable, comprehensive history of current and former provisional standards is provided, including:

- when first published;
- number of years into 8-year life cycle, if in use;
- final disposition, if no longer in use; and
- full standard number, if adopted.

COMPREHENSIVE HISTORY OF CURRENT AND FORMER AASHTO PROVISIONAL MATERIALS STANDARDS AND TEST METHODS

JULY 2019

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
MP 1	Performance Graded Asphalt Binder	1994	Adopted	2002	M 320
MP 1a	Performance Graded Asphalt Binder	1996	Adopted	2005	
MP 2	Superpave Volumetric Mix Design	1996	Adopted	2004	M 323
MP 5	Bridge Deck Cathodic Protection	1996	Deleted	1999	—
MP 6	Corrugated Polyethylene Pipe, 1050 and 1200 mm Diameter	1996	Adopted	1999	M 294
MP 7	Corrugated Polyethylene Pipe, 1350 and 1500 mm Diameter	1998	Adopted	2003	
MP 8	Designing Stone Matrix Asphalt (SMA)	2000	Adopted	2008	M 325
MP 9	Compost for Erosion/Sediment Control (Filter Berms)	2003	Adopted	2010	R 51
MP 10	Compost for Erosion/Sediment Control (Compost Blankets)	2003	Adopted	2010	R 52
MP 11	Inertial Profiler	2003	Adopted	2010	M 328
MP 12	Detectable Warning Surfaces	2004	Adopted	2015	M 333
MP 13	Stainless Clad Deformed and Plain Round Steel Bars for Concrete Reinforcement	2004	Adopted	2011	M 329
MP 14	Smoothness of Pavement at the Approaches to Weight-in-Motion (WIM) Scales	2005	Adopted	2013	M 331
MP 15	Use of Reclaimed Asphalt Shingles as an Additive in Hot-Mix Asphalt	2006	Deleted	2014	—
MP 16	Reclaimed Concrete Aggregate for Use as Coarse Aggregate in Hydraulic Cement	2007	Deleted	2016 (August)	—
MP 17	Pavement Ride Quality When Measured Using Inertial Profiling Systems	2004	Adopted	2010	R 54
MP 18	Uncoated, Corrosion-Resistant, Deformed and Plain Chromium Alloyed, Billet-Steel Bars for Concrete Reinforcement and Dowels	2009	Adopted	2017 (June)	M 334M/M 334 and T 372M/T 372 through T 376M/T 376
MP 19	Performance-Graded Asphalt Binder Using Multiple Stress Creep Recovery (MSCR) Test	2010	Adopted	2014	M 332

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
MP 20	Steel-Reinforced Polyethylene (PE) Ribbed Pipe, 300- to 1500-mm (12- to 60-in.) Diameter	2010	Adopted	2018 (June)	M 335
MP 21	Polypropylene Pipe, 300- to 500-mm (12- to 60-in.)	2011	Adopted	2013	M 330
MP 22	Fiber-Reinforced Polymer Composite Materials for Highway and Bridge Structures	2013			
MP 23	Reclaimed Asphalt Shingles for Use in Asphalt Mixtures	2014			
MP 24	Waterborne White and Yellow Traffic Paints	2014			
MP 25	Performance-Graded Hot-Poured Asphalt Crack Sealant	2015			
MP 26	Cotton Duck Fabric Bridge Bearings	2015			
MP 27	Materials for Emulsified Asphalt Chip Seals	2016			
MP 28	Materials for Micro Surfacing	2016			
MP 29	<i>This standard number was inadvertently skipped.</i>				
MP 30	Steel Wire and Welded Wire, Plain and Deformed, for Concrete Reinforcement	2017	Adopted	2018 (June)	M 336M/M 336
MP 31	Materials for Cold Recycled Mixtures with Emulsified Asphalt	2017			
MP 32	Materials for Slurry Seal	2017			
MP 33	Materials for Emulsified Asphalt Fog Seal	2017			
MP 34	Materials for Sand Seals	2018			
MP 35	Thin Overlay Treatments Using a Binder Resin System and Aggregate for Concrete Surfaces	2018			
MP 36	Materials for Asphalt Tack Coat	2018			
MP 37	Performance-Graded Asphalt Binder for Surface Treatments	2018			
MP 38	Mix Design of Cold Recycled Mixture with Foamed Asphalt	2018			
MP 39	File Format of Intelligent Construction Data	2019			
MP 40	Steel-Reinforced Polyethylene (PE) Ribbed Pipe 1650- to 3000-mm (66- to 120-in.) Diameter	2019			
MP 41	High Friction Surface Treatment for Asphalt and Concrete Pavements Using Calcined Bauxite	2019			

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
PP 1	Accelerated Aging of Asphalt Binder Using a Pressurized Aging Vessel (PAV)	1994	Adopted	2002	R 28
PP 2	Mixture Conditioning of Hot-Mix Asphalt (HMA)	1995	Adopted	2002	R 30
PP 3	Preparing Hot Mix Asphalt (HMA) Specimens by Means of the Rolling Wheel Compactor	1995	Deleted	2003	—
PP 5	Laboratory Evaluation of Modified Asphalt Systems	1994	Deleted	1998	—
PP 6	Grading or Verifying the Performance Grade of an Asphalt Binder	1994	Adopted	2002	R 29
PP 7	Calibrating the Load Cell and Deflection Sensors for a Falling Weight Deflectometer	1995	Adopted	2003	R 32
PP 8	Calibrating the Reference Load Cell Used for reference Calibrations for Falling Weight Deflectometer	1995	Adopted	2003	R 33
PP 10	Operational Guidelines on Test Pits for Evaluating Pavement Performance	1994	Deleted	1995	— ^a
PP 19	Volumetric Analysis of Compacted Hot Mix Asphalt (HMA)	1994	Deleted	2002	—
PP 20	Evaluating the Performance of Crack Sealing Treatments on Asphalt Surfaced Pavement	1995	Deleted	2004	—
PP 21	Testing and Evaluating Cold Mix Patching Materials	1995	Deleted	2002	—
PP 22	Selecting and Specifying Crack Sealants for Asphalt Surfaced Pavement	1996	Deleted	2002	—
PP 23	Evaluating the Condition of Portland Cement Concrete Bridge Components	1996	Deleted	2003	—
PP 25	Evaluating the Performance of Joint Seals in Portland Cement Concrete Pavement	1996	Deleted	2002	—
PP 26	Certifying Suppliers of Performance Graded Asphalt Binders	1997	Adopted	2001	R 26
PP 28	Superpave Volumetric Design for Hot-Mix Asphalt (HMA)	1996	Adopted	2004	R 35
PP 29	Evaluating Deicing Chemicals	1996	Adopted	2003	R 34
PP 30	Evaluation of Coating Systems with Zinc Rich Primers	1996	Adopted	2002	R 31
PP 31	Measuring Pavement Profile Using a Rod and Level	1997	Adopted	2005	R 40
PP 32	Measuring Pavement Profile Using a Dipstick®	1997	Adopted	2005	R 41
PP 33	Decommissioning Geotechnical Exploratory Boreholes	1997	Adopted	1998	R 22

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
PP 34	Estimating the Cracking Tendency of Concrete	1998	Adopted	2008	T 334
PP 35	Evaluation of Superpave™ Gyratory Compactors (SGCs)	1998	Deleted	2007	—
PP 36	Assessment of Corrosion of Steel Piling for Non-Marine Applications	1998	Adopted	2002	R 27
PP 37	Determination of International Roughness Index (IRI) to Quantify Roughness of Pavements	1999	Combined and Adopted	2007	R 43M/ R 43
PP 37M	Quantifying Roughness of Pavements	1999			
PP 38	Determining Maximum Rut Depth in Asphalt Pavements	1999	Adopted	2008	R 48
PP 39	Estimating Faulting of Concrete Pavements	1999	Adopted	2004	R 36
PP 40	Application of Ground Penetrating Radar (GPR) to Highways	2000	Adopted	2004	R 37
PP 41	Designing Stone Matrix Asphalt (SMA)	2000	Adopted	2008	R 46
PP 42	Determination of Low-Temperature Performance Grade (PG) of Asphalt Binders	2001	Adopted	2009	R 49
PP 44	Quantifying Cracks in Asphalt Pavement Surface	2001	Adopted	2010	R 55
PP 45	Qualification of Deformed and Plain Steel Bar Producing Mills	2001	Adopted	2010	R 53
PP 46	Geosynthetic Reinforcement of the Aggregate Base Course of Flexible Pavement Structures	2001	Adopted	2009	R 50
PP 47	Evaluation of Different Superpave™ Gyratory Compactors (SGCs) Used in the Design and the Field Management of Superpave™ Mixtures	2002	Deleted	2009	—
PP 48	Evaluation of the Superpave™ Gyratory Compactor (SGC) Internal Angle of Gyration	2003	Deleted	2010	—
PP 49	Certification of Inertial Profiling Systems	2003	Adopted	2010	R 56
PP 50	Operating Inertial Profilers and Evaluating Pavement Profiles	2003	Adopted	2010	R 57
PP 51	Pavement Ride Quality When Measured Using Inertial Profiling Systems	2003	Adopted	2010	R 54 ^b
PP 52	Developing a Quality Assurance Plan for Hot-Mix Asphalt (HMA)	2005	Adopted	2006	R 42
PP 53	Design Considerations When Using Reclaimed Asphalt Shingles (RAS) in New Hot Mix Asphalt (HMA)	2006	Deleted	2014	—

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
PP 54	Match Curing of Concrete Test Specimens	2006	Adopted	2016 (April)	R 72
PP 55	Overcoating Field Test Program for Evaluating Protective Coatings on Existing Bridges or Salvaged Beams	2006	Deleted	2012	—
PP 56	Evaluating the Engineering and Environmental Suitability of Recycled Materials	2006	Adopted	2014	R 65
PP 57	Establishing Requirements for and Performing Equipment Calibrations, Standardizations, and Checks	2006	Adopted	2012	R 61
PP 58	Static Segregation of Hardened Self-Consolidating Concrete (SCC) Cylinders	2008	Adopted	2017 (April)	R 81 ^c
PP 59	Coal Combustion Fly Ash for Embankments	2009	Deleted	2016 (August)	—
PP 60	Preparation of Cylindrical Performance Test Specimens Using the Superpave Gyrotory Compactor (SGC)	2009	Adopted	2017 (August)	R 83
PP 61	Developing Dynamic Modulus Master Curves for Asphalt Mixtures Using the Asphalt Mixture Performance Tester (AMPT)	2009	Adopted	2017 (August)	R 84
PP 62	Developing Dynamic Modulus Master Curves for Hot Mix Asphalt (HMA)	2009	Adopted	2013	R 62
PP 63	Pipe Joint Selection for Highway Culvert and Storm Drains	2009	Adopted	2017 (June)	R 82
PP 64	Determining Aggregate Source Shape Values from Digital Image Analysis Shape Properties	2010	Adopted	2018 (August)	R 91
PP 65	Determining the Reactivity of Concrete Aggregates and Selecting Appropriate Measures for Preventing Deleterious Expansion in New Concrete Construction	2010			
PP 66	Determination of Long-Term Strength for Geosynthetic Reinforcement	2010	Adopted	2015	R 69
PP 67	Quantifying Cracks in Asphalt Pavement Surfaces from Collected Images Utilizing Automated Methods	2010	Adopted	2018 (April)	R 85
PP 68	Collecting Images of Pavement Surfaces for Distress Detection	2010	Adopted	2018 (April)	R 86
PP 69	Determining Pavement Deformation Parameters and Cross Slope from Collected Transverse Profiles	2010	Adopted	2018 (April)	R 87
PP 70	Collecting the Transverse Pavement Profile	2010	Adopted	2018 (April)	R 88

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
PP 71	Certifying Suppliers of Emulsified Asphalt	2011	Adopted	2016 (August)	R 77
PP 72	Recovering Residue from Emulsified Asphalt Using Low-Temperature Evaporative Techniques	2011	Adopted	2016 (August)	R 78
PP 73	Quality Assurance, Job Site Quality Control, and Reapplication of Protective Sealers for Portland Cement Concrete	2011	Adopted	2019 (June)	R 94
PP 74	Determination of Size and Roundness of Glass Beads Used in Traffic Markings by Means of Computerized Optical Method	2011			
PP 75	Vacuum Drying Compacted Asphalt Specimens	2013	Adopted	2016 (August)	R 79
PP 76	Troubleshooting Asphalt Specimen Volumetric Differences between Superpave Gyrotory Compactors (SGCs) Used in the Design and the Field Management of Superpave Mixtures	2013			
PP 77	Materials Selection and Mixture Design of Permeable Friction Courses (PFCs)	2014			
PP 78	Design Considerations When Using Reclaimed Asphalt Shingles (RAS) in Asphalt Mixtures	2014			
PP 79	High Friction Surface Treatment for Asphalt and Concrete Pavements	2014	Renumbered	2019 (June)	MP 41
PP 80	Continuous Thermal Profile of Asphalt Mixture Construction	2014			
PP 81	Intelligent Compaction Technology for Embankment and Asphalt Pavement Applications	2014			
PP 82	Emulsified Asphalt Chip Seal Design	2016			
PP 83	Micro Surfacing Design	2016			
PP 84	Performance Engineered Concrete Pavement Mixtures	2017			
PP 85	Grading or Verifying the Sealant Grade (SG) of a Hot-Poured Asphalt Crack Sealant	2017			
PP 86	Emulsified Asphalt Content of Cold Recycled Mixture Designs	2017			
PP 87	Slurry Seal Design	2017			
PP 88	Emulsified Asphalt Fog Seal Design	2017			
PP 89	Grinding the Ends of Cylindrical Concrete Specimens	2018			
PP 90	Sand Seal Design	2018			

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
PP 91	Emulsified Asphalt Scrub Seal Design	2018			
PP 92	Preparation of Test Specimens Using the Plastic Mold Compaction Device	2018			
PP 93	Asphalt Tack Coat Design	2018			
PP 94	Determining Optimum Asphalt Content of Cold Recycled Mixture with Foamed Asphalt	2018			
PP 95	Preparation of Indirect Tension Performance Test Specimens	2018			
PP 96	Developing Dynamic Modulus Master Curves for Hot Mix Asphalt (HMA) Using the Indirect Tension Testing Method	2018			
PP 97	Determination of Constant Mass	2019			
PP 98	Asphalt Surface Dielectric Profiling System Using Ground Penetrating Radar	2019			
PP 99	Preparation of Small Cylindrical Performance Test Specimens Using the Superpave Gyratory Compactor (SGC) or Field Cores	2019			
TP 1	Determining the Flexural Creep Stiffness of Asphalt Binder Using the Bending Beam Rheometer (BBR)	1994	Adopted	2002	T 313
TP 2	Quantitative Extraction and Recovery of Asphalt Binder from Hot Mix Asphalt (HMA)	1995	Adopted	2003	T 319
TP 3	Determining the Fracture Properties of Asphalt Binder in Direct Tension (DT)	1994	Adopted	2002	T 314
TP 4	Preparing and Determining the Density of Hot-Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor	1994	Adopted	2001	T 312
TP 5	Determining the Rheological Properties of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)	1995	Adopted	2002	T 315
TP 6	Measurement of Initial Asphalt Adsorption and Desorption in the Presence of Moisture	1994	Deleted	1999	—
TP 7	Determining the Permanent Deformation and Fatigue Cracking Characteristics of Hot Mix Asphalt (HMA) Using the Simple Shear Test (SST) Device	1995	Adopted	2003	T 320
TP 8	Determining the Fatigue Life of Compacted Hot Mix Asphalt (HMA) Subjected to Repeated Flexural Bending	1995	Adopted	2003	T 321
TP 9	Determining the Creep Compliance and Strength of Hot Mix Asphalt (HMA) Using the Indirect Tensile Test Device	1995	Adopted	2003	T 322

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
TP 10	Thermal Stress Restrained Specimen Tensile Strength	1994	Deleted	2002	—
TP 11	Rapid Determination of Corrosion Rate of Uncoated Steel in Reinforced Concrete	1996	Deleted	2004	—
TP 12	Determining the Hydraulic Fracture of Coarse Aggregate	1994	Deleted	2001	—
TP 14	Accelerated Detection of Potentially Deleterious Expansion of Mortar Bars Due to Alkali-Silica Reaction	1994	Adopted	1996	T 303
TP 17	Resistance of Concrete to Rapid Freezing and Thawing	1994	Deleted	2002	—
TP 18	Method for Determining the Fundamental Transverse Frequency and Quality Factor of Concrete Prism Specimens	1995	Deleted	2003	—
TP 19	Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)	1994	Deleted	2002	—
TP 20	Compressive Strength of Cylindrical Concrete Specimens	1994	Adopted	1997	T 22
TP 22	Rapid Determination of the Chloride Penetrability of Concrete Using AC Impedance	1995	Deleted	2003	—
TP 23	Water Content of Freshly Mixed Concrete Using Microwave Oven Drying	1994	Adopted	2002	T 318
TP 24	Determining the Density of Freshly Mixed Concrete in Place Using a Twin-Probe Nuclear Density Gauge	1995	Deleted	2003	—
TP 26	Determining the Relative Permeability of Concrete by Surface Air Flow	1995	Deleted	2003	—
TP 28	Detection of Voids under Rigid Pavement	1995	Deleted	2003	—
TP 29	Determining the Shear Strength at the Interface of Bonded Layers of Portland Cement Concrete	1995	Adopted	2003	T 323
TP 31	Determining the Resilient Modulus of Bituminous Mixtures by Indirect Tension	1995	Deleted	2003	—
TP 33	Uncompacted Void Content of Fine Aggregate (As Influenced by Particle Shape, Surface Texture, and Grading)	1994	Adopted	1996	T 304
TP 34	Determining Moisture Sensitivity Characteristics of Compacted Bituminous Mixtures Subjected to Hot and Cold Climate Conditions	1994	Deleted	1999	—
TP 35	Determining the Relative Effectiveness of Penetrating Concrete Sealers by Electrical Resistance	1994	Deleted	2002	—
TP 36	Evaluating Asphalt-Covered Concrete Bridge Decks Using Pulsed Radar	1994	Deleted	2002	—

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
TP 37	Determining the Condition Rating of Preformed Membranes on Concrete Bridge Decks Using Pulse Velocity	1994	Deleted	2002	—
TP 39	Determining the Maximum Specific Gravity of Bituminous Paving Mixtures	1995	Adopted	1999	T 209
TP 40	Determining the Percent Asphalt Required for Coating Aggregates Used in Cold Mix Patching Materials	1995	Deleted	2002	—
TP 41	Determining the Percent Asphalt Required Based on Stripping of Aggregates Used in Cold Mix Patching Materials	1995	Deleted	2002	—
TP 42	Percent Asphalt Based on Drainability of Aggregates Used in Cold Mix Patching Materials	1995	Deleted	2002	—
TP 43	Workability of Cold Mix Patching Materials	1995	Deleted	2002	—
TP 44	Cohesion of Cold Mix Patching Materials	1995	Deleted	2002	—
TP 46	Determining the Resilient Modulus of Soils and Aggregate Materials	1995	Adopted	1999	T 307
TP 47	Determining the Ecological Effects of Deicing Chemicals	1995	Deleted	2002	—
TP 48	Viscosity Determination of Asphalt Binder Using Rotational Viscometer	1995	Adopted	2002	T 316
TP 50	Determining the Relative Effectiveness of Penetrating Concrete Sealers by Water Absorption	1996	Deleted	2004	—
TP 51	Testing Cathodic Protection Materials and Systems for Bridge Decks	1996	Deleted	2004	—
TP 52	Estimating the Strength of Concrete in Transportation Construction by Maturity Tests	1996	Adopted	2004	T 325
TP 53	Determining the Asphalt Content of Hot Mix Asphalt (HMA) by the Ignition Method	1996	Adopted	1999	T 308
TP 54	Determining Early Stiffening Characteristics of Portland Cement Paste (Mini Slump Cone Method)	1997	Deleted	2004	—
TP 55	Determining Chloride Ions in Concrete and Concrete Materials by Specific Ion Probe	1998	Adopted	2007	T 332
TP 56	Uncompacted Void Content of Coarse Aggregate (As Influenced by Particle Shape, Surface Texture, and Grading)	1998	Adopted	2005	T 326
TP 57	Methylene Blue Value of Clays, Mineral Fillers, and Fines	1998	Adopted	2007	T 330
TP 58	Resistance of Coarse Aggregate to Degradation by Abrasion in the Micro-Deval Apparatus	1999	Adopted	2005	T 327

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
TP 59	Determining Air Content of Hardened Portland Cement Concrete by High-Pressure Air Meter	1999	Adopted	2015	T 356
TP 60	Coefficient of Thermal Expansion of Hydraulic Cement Concrete	2000	Adopted	2009	T 336
TP 61	Determining the Percentage of Fracture in Coarse Aggregate	2002	Adopted	2009	T 335
TP 62	Determining Dynamic Modulus of Hot-Mix Asphalt Concrete Mixtures	2003	Adopted	2011	T 342
TP 63	Determining Rutting Susceptibility of Asphalt Paving Mixtures Using the Asphalt Pavement Analyzer (APA)	2003	Adopted	2010	T 340
TP 64	Predicting Chloride Penetration of Hydraulic Cement Concrete by the Rapid Migration Procedure	2003	Adopted	2015	T 357
TP 65	Non-Instrumental Determination of Metallic Zinc in Zinc-Rich Primers	2003	Adopted	2009	T 337
TP 66	Analysis of Structural Steel Coatings for Hindered Amine Light Stabilizer (HALS)	2003	Adopted	2009	T 338
TP 67	Analysis of Structural Steel Coatings for Isocyanate Content	2003	Adopted	2009	T 339
TP 68	Density of In-Place Hot-Mix Asphalt (HMA) Pavement by Electronic Surface Contact Devices	2004	Adopted	2012	T 343
TP 69	Bulk Specific Gravity and Density of Compacted Asphalt Mixtures Using Automatic Vacuum Sealing Method	2004	Adopted	2007	T 331
TP 70	Multiple Stress Creep Recovery (MSCR) Test of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)	2007	Adopted	2014	T 350
TP 71	Evaluation of Superpave Gyrotory Compactor (SGC) Internal Angle of Gyration Using Simulated Loading	2007	Adopted	2012	T 344
TP 72	Quantitative Determination of the Percentage of Lime in Hot Mix Asphalt (HMA)	2008	Adopted	2016 (August)	T 362
TP 73	Slump Flow of Self-Consolidating Concrete (SCC)	2008	Adopted	2013	T 347
TP 74	Passing Ability of Self-Consolidating Concrete (SCC) by J-Ring	2008	Adopted	2012	T 345
TP 75	Air-Void Characteristics of Freshly Mixed Concrete by Buoyancy Change	2008	Adopted	2013	T 348
TP 76	Measurement of Tire/Pavement Noise Using the On-Board Sound Intensity (OBSI) Method	2008	Adopted	2016 (April)	T 360
TP 77	Specific Gravity and Absorption of Aggregate by Volumetric Immersion Method	2009	Adopted	2015	T 354

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
TP 78	Detecting the Presence of Phosphorous in Asphalt Binder	2009	Adopted	2017 (August)	T 377 ^e
TP 79	Determining the Dynamic Modulus and Flow Number for Asphalt Mixtures Using the Asphalt Mixture Performance Tester (AMPT)	2009	Adopted	2017 (August)	T 378
TP 80	Visual Stability Index (VSI) of Self-Consolidating Concrete (SCC)	2009	Adopted	2014	T 351
TP 81	Determining Aggregate Shape Properties by Means of Digital Image Analysis	2010	Adopted	2018 (August)	T 381
TP 82	Bulk Specific Gravity (G_{mb}) of Compacted Bituminous Mixtures Using Water Displacement Measured by Pressure Sensor	2010	Deleted	2018 (August)	—
TP 83	Sampling and Fabrication of 50-mm (2-in.) Cube Specimens Using Grout (Non-Shrink) or Mortar	2010	Adopted	2014	R 64
TP 84	Evaluation of Adhesive Anchors in Concrete Under Sustained Loading Conditions	2010	Deleted	2018 (June)	—
TP 85	Apparent Viscosity of Hot-Poured Bituminous Crack Sealant Using Brookfield Rotational Viscometer RV Series Instrument	2010	Adopted	2017 (June)	T 366
TP 86	Accelerated Aging of Bituminous Sealants and Fillers with a Vacuum Oven	2010	Adopted	2017 (June)	T 367
TP 87	Measure Low Temperature Flexural Creep Stiffness of Bituminous Sealants and Fillers by Bending Beam Rheometer (BBR)	2010	Adopted	2017 (June)	T 368
TP 88	Evaluation of the Low-Temperature Tensile Property of Bituminous Sealants by Direct Tension Test	2010	Adopted	2017 (June)	T 369
TP 89	Measuring Adhesion of Hot-Poured Crack Sealant Using Direct Adhesion Tester	2010	Adopted	2017 (June)	T 370
TP 90	Measuring Interfacial Fracture Energy of Hot-Poured Crack Sealant Using a Blister Test	2010	Adopted	2017 (June)	T 371
TP 91	Determining Asphalt Binder Bond Strength by Means of the Asphalt Bond Strength (ABS) Test	2011	Adopted	2016 (August)	T 361
TP 92	Determining the Cracking Temperature of Asphalt Binder Using the Asphalt Binder Cracking Device (ABCD)	2011	Adopted	2019 (July)	T 387
TP 93	Determining Formwork Pressure of Fresh Self-Consolidating Concrete Using Pressure Transducers	2011	Adopted	2014	T 352

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
TP 94	Filling Capacity of Self-Consolidating Concrete Using the Caisson Test	2011	Adopted	2013	T 349
TP 95	Surface Resistivity Indication of Concrete's Ability to Resist Chloride Ion Penetration	2011	Adopted	2015	T 358
TP 96	Protective Sealers for Portland Cement Concrete	2011	Adopted	2019 (June)	T 384
TP 97	Glass Beads Used in Pavement Markings	2011	Adopted	2012	T 346
TP 98	Determining the Influence of Road Surfaces on Vehicle Noise Using the Statistical Isolated Pass-By (SIP) Method	2011			
TP 99	Determining the Influence of Road Surfaces on Traffic Noise Using the Continuous-Flow Traffic Time-Integrated Method (CTIM)	2011			
TP 100	Deep Foundation Elements under Bidirectional Static Axial Compressive Load	2012	Adopted	2019 (July)	T 385
TP 101	Estimating Fatigue Resistance of Asphalt Binders Using the Linear Amplitude Sweep	2012			
TP 102	Evaluation of Asphalt Release Agents	2012	Adopted	2018 (August)	T 383
TP 103	Detectable Warning Systems	2012			
TP 104	Rapid Axial Compressive Load Testing of Deep Foundation Units	2013	Adopted	2019 (July)	T 386
TP 105	Determining the Fracture Energy of Asphalt Mixtures Using the Semicircular Bend Geometry (SCB)	2013			
TP 106	Determination of Heavy Metal Content of Glass Beads Using X-Ray Fluorescence (XRF)	2013			
TP 107	Determining the Damage Characteristic Curve of Asphalt Mixtures from Direct Tension Cyclic Fatigue Tests	2014			
TP 108	Determining the Abrasion Loss of Asphalt Mixture Specimens	2014			
TP 109	Nonlinear Impact Resonance Acoustic Spectroscopy (NIRAS) for Concrete Specimens with Damage from the Alkali-Silica Reaction (ASR)	2014	Adopted	2018 (April)	T 379
TP 110	Potential Alkali Reactivity of Aggregates and Effectiveness of ASR Mitigation Measures (Miniature Concrete Prism Test, MCPT)	2014	Adopted	2018 (April)	T 380

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
TP 111	Measuring Retroreflectivity of Pavement Marking Materials Using a Mobile Retroreflectivity Unit	2014			
TP 112	Determining In-Place Density and Moisture Content of Soil and Soil-Aggregate Using Complex Impedance Methodology	2014			
TP 113	Determination of Asphalt Binder Resistance to Ductile Failure Using Double-Edge-Notched Tension (DENT) Test	2015			
TP 114	Determining the Interlayer Shear Strength (ISS) of Asphalt Pavement Layers	2015			
TP 115	Determining the Quality of Tack Coat Adhesion to the Surface of an Asphalt Pavement in the Field or Laboratory	2015			
TP 116	Rutting Resistance of Asphalt Mixtures Using Incremental Repeated Load Permanent Deformation (iRLPD)	2015			
TP 117	Determination of the Voids of Dry Compacted Filler	2015			
TP 118	Characterization of the Air-Void System of Freshly Mixed Concrete by the Sequential Pressure Method	2015			
TP 119	Electrical Resistivity of a Concrete Cylinder Tested in a Uniaxial Resistance Test	2015			
TP 120	Pore Index for Carbonate Coarse Aggregate	2016			
TP 121	Determining the Viscosity of Emulsified Asphalt by a Rotational Paddle Viscometer	2016	Adopted	2018 (August)	T 382
TP 122	Determination of Performance Grade of Physically Aged Asphalt Binder Using Extended Bending Beam Rheometer (BBR) Method	2016			
TP 123	Measuring Asphalt Binder Yield Energy and Elastic Recovery Using the Dynamic Shear Rheometer	2016			
TP 124	Determining the Fracture Potential of Asphalt Mixtures Using Semicircular Bend Geometry (SCB) at Intermediate Temperature	2016			
TP 125	Determining the Flexural Creep Stiffness of Asphalt Mixtures Using the Bending Beam Rheometer (BBR)	2016			
TP 126	Evaluation of the Tracking Resistance of Hot-Poured Asphalt Crack Sealant by Dynamic Shear Rheometer (DSR)	2017			
TP 127	Determining the Fracture Energy Density of Asphalt Binder Using the Binder Fracture Energy (BFE) Test	2017			
TP 128	Evaluation of Oxidation Level of Asphalt Mixtures by a Portable Infrared Spectrometer	2017			

Provisional Standard Number	Title	First Publ. Year	Final Disposition	Disposit. Year	Full Std. No.
TP 129	Vibrating Kelly Ball (VKelly) Penetration in Fresh Portland Cement Concrete	2018			
TP 130	Producing Draw Down Panels and Measuring the Coefficient of Retroreflected Luminance (RL) of Pavement Markings in a Laboratory Panel	2018			
TP 131	Determining Dynamic Modulus of Asphalt Concrete Using the Indirect Tension Test	2018			
TP 132	Determining the Dynamic Modulus for Asphalt Mixtures Using Small Specimens in the Asphalt Mixture Performance Tester (AMPT)	2019			
TP 133	Determining the Damage Characteristic Curve and Failure Criterion Using Small Specimens in the Asphalt Mixture Performance Tester (AMPT)	2019			
TP 134	Stress Sweep Rutting (SSR) Test Using Asphalt Mixture Performance Tester (AMPT)	2019			

^a Adopted in 1995 as R 19. R 19 was discontinued in 2004.

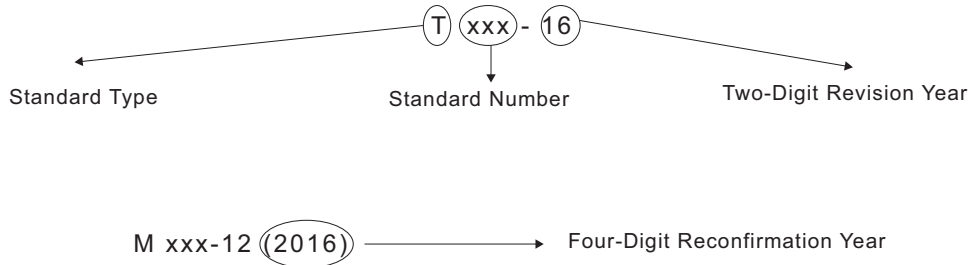
^b Reclassified as a provisional specification MP 17 in 2007 then reclassified again as a practice when adopted as a full standard.

^c Discontinued in 2016 then adopted in 2017.

ABOUT AASHTO DESIGNATION NUMBERS

Anatomy of a Designation Number

Components



Standard Types

Standard types are represented by a one-letter abbreviation for full standards. The letter “P” is added for provisional standards. The standard type abbreviations are as follows:

- M (Materials, full)
- T (Test, full)
- R (PRactice, full)
- MP (Materials, provisional)
- TP (Test, provisional)
- PP (Practice, provisional)

Standard Numbers

Standard numbers are sequential within standard type. Thus, a provisional that is subsequently adopted as a full standard will receive a new number.

Revised vs. Reconfirmed and Discontinued vs. Deleted

A full or provisional standard is designated as *revised* if technical changes have been balloted and approved by AASHTO’s Committee on Materials and Pavements. A standard is designated as *reconfirmed* if it has undergone technical review to determine that it is up to date and in use and that it does not require revision; such a review is required:

- every four years for a full standard, and
- every one or two years for a provisional standard, depending on its progress through its 8-year provisional life cycle.

If a standard is no longer used, it may be *discontinued* by Committee vote, in which case the standard header will be published that year with a notice saying that the standard has been discontinued and giving a brief explanation as to why. In subsequent years, the standard will be *deleted* from the book, meaning that it is no longer maintained.