



# CERTIFICATE OF ACCREDITATION



## Element Materials Technology St. Paul, Inc.


in

### St. Paul, Minnesota, USA

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

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

  
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Bud Wright,  
AASHTO Executive Director

  
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Moe Jamshidi,  
AASHTO COMP Chair

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## Quality Management System

<b>Standard:</b>		<b>Accredited Since:</b>
R18	Establishing and Implementing a Quality System for Construction Materials Testing Laboratories	04/15/1998
C1077 (Aggregate)	Laboratories Testing Concrete and Concrete Aggregates	06/27/2013
C1077 (Concrete)	Laboratories Testing Concrete and Concrete Aggregates	06/27/2013
D3666 (Aggregate)	Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials	06/27/2013
D3666 (Asphalt Mixture)	Minimum Requirements for Agencies Testing and Inspecting Road and Paving Materials	06/27/2013
E329 (Aggregate)	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	06/27/2013
E329 (Asphalt Mixture)	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	06/27/2013
E329 (Concrete)	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	06/27/2013



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## Asphalt Mixture

Standard:		Accredited Since:
R68	Preparation of Asphalt Mixtures by Means of the Marshall Apparatus	04/15/1998
T30	Mechanical Analysis of Extracted Aggregate	04/15/1998
T164 (Mineral Matter Not Determined)	Quantitative Extraction of Asphalt Binder from Hot Mix Asphalt (HMA) - Plant Control	06/11/2018
T166	Bulk Specific Gravity of Compacted Hot Mix Asphalt Using Saturated Surface-Dry Specimens	04/15/1998
T209	Maximum Specific Gravity of Hot Mix Asphalt Paving Mixtures	04/15/1998
T245	Resistance to Plastic Flow of Asphalt Mixtures Using Marshall Apparatus	04/15/1998
T269	Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures	04/15/1998
T308	Determining the Asphalt Content of Hot Mix Asphalt (HMA) by the Ignition Method	05/23/2011
T312	Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor	04/15/1998
D2041	Maximum Specific Gravity of Hot Mix Asphalt Paving Mixtures	04/15/1998
D2172 (Mineral Matter Not Determined)	Quantitative Extraction of Asphalt Binder from Hot Mix Asphalt (HMA) - Plant Control	06/11/2018
D2726	Bulk Specific Gravity of Compacted Hot Mix Asphalt Using Saturated Surface-Dry Specimens	04/15/1998
D2950	Density of Bituminous Concrete In Place by Nuclear Methods	05/23/2011
D3203	Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures	04/15/1998
D5444	Mechanical Analysis of Extracted Aggregate	04/15/1998
D6307	Determining the Asphalt Content of Hot Mix Asphalt (HMA) by the Ignition Method	05/23/2011
D6925	Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor	04/15/1998
D6926	Preparation of Asphalt Mixtures by Means of the Marshall Apparatus	04/15/1998
D6927	Resistance to Plastic Flow of Asphalt Mixtures Using Marshall Apparatus	04/15/1998



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## Soil

### Standard:

### Accredited Since:

R58	Dry Preparation of Disturbed Soil and Soil Aggregate Samples for Test	04/15/1998
T88	Particle Size Analysis of Soils by Hydrometer	05/23/2011
T89	Determining the Liquid Limit of Soils (Atterberg Limits)	05/23/2011
T90	Plastic Limit of Soils (Atterberg Limits)	05/23/2011
T99	The Moisture-Density Relations of Soils Using a 5.5 lb [2.5 kg] Rammer and a 12 in. [305 mm] Drop	04/15/1998
T180	Moisture-Density Relations of Soils Using a 10 lb [4.54 kg] Rammer and an 18 in. [457 mm] Drop	04/15/1998
T191	Density of Soil In-Place by the Sand Cone Method	04/15/1998
T208	Unconfined Compressive Strength of Cohesive Soil	04/15/1998
T265	Laboratory Determination of Moisture Content of Soils	04/15/1998
T310	In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)	04/15/1998
D421	Dry Preparation of Disturbed Soil and Soil Aggregate Samples for Test	04/15/1998
D422	Particle Size Analysis of Soils by Hydrometer	04/15/1998
D698	The Moisture-Density Relations of Soils Using a 5.5 lb [2.5 kg] Rammer and a 12 in. [305 mm] Drop	04/15/1998
D1140	Amount of Material in Soils Finer than the No. 200 (75- $\mu$ m) Sieve	09/21/2015
D1556	Density of Soil In-Place by the Sand Cone Method	04/15/1998
D1557	Moisture-Density Relations of Soils Using a 10 lb [4.54 kg] Rammer and an 18 in. [457 mm] Drop	04/15/1998
D2166	Unconfined Compressive Strength of Cohesive Soil	04/15/1998
D2216	Laboratory Determination of Moisture Content of Soils	04/15/1998
D2487	Classification of Soils for Engineering Purposes (Unified Soil Classification System)	09/21/2015
D2488	Description and Identification of Soils (Visual-Manual Procedure)	09/21/2015
D4318	Determining the Liquid Limit of Soils (Atterberg Limits)	04/15/1998
D4318	Plastic Limit of Soils (Atterberg Limits)	04/15/1998
D6938	In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)	04/15/1998



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## Aggregate

### Standard:

### Accredited Since:

R76	Reducing Samples of Aggregate to Testing Size	05/23/2011
T11	Materials Finer Than 75- $\mu$ m (No. 200) Sieve in Mineral Aggregates by Washing	05/23/2011
T19	Bulk Density ("Unit Weight") and Voids in Aggregate	05/23/2011
T21	Organic Impurities in Fine Aggregates for Concrete	05/23/2011
T27	Sieve Analysis of Fine and Coarse Aggregates	05/23/2011
T84	Specific Gravity (Relative Density) and Absorption of Fine Aggregate	05/23/2011
T85	Specific Gravity and Absorption of Coarse Aggregate	05/23/2011
T96	Resistance to Abrasion of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	05/23/2011
T255	Total Moisture Content of Aggregate by Drying	05/23/2011
T304	Uncompacted Void Content of Fine Aggregate (Influenced by Shape, Texture, and Grading)	09/21/2015
C29	Bulk Density ("Unit Weight") and Voids in Aggregate	05/23/2011
C40	Organic Impurities in Fine Aggregates for Concrete	05/23/2011
C117	Materials Finer Than 75- $\mu$ m (No. 200) Sieve in Mineral Aggregates by Washing	05/23/2011
C127	Specific Gravity and Absorption of Coarse Aggregate	05/23/2011
C128	Specific Gravity (Relative Density) and Absorption of Fine Aggregate	05/23/2011
C131	Resistance to Abrasion of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	05/23/2011
C136	Sieve Analysis of Fine and Coarse Aggregates	05/23/2011
C535	Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	05/23/2011
C566	Total Moisture Content of Aggregate by Drying	05/23/2011
C702	Reducing Samples of Aggregate to Testing Size	05/23/2011
C1252	Uncompacted Void Content of Fine Aggregate (Influenced by Shape, Texture, and Grading)	09/21/2015
D4791	Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate	04/15/1998



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## Concrete

<b>Standard:</b>		<b>Accredited Since:</b>
C31	Making and Curing Concrete Test Specimens in the Field	12/30/2010
C39	Compressive Strength of Cylindrical Concrete Specimens	12/30/2010
C78	Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)	12/30/2010
C138	Density (Unit Weight), Yield, and Air Content of Concrete	12/30/2010
C143	Slump of Hydraulic Cement Concrete	12/30/2010
C172	Sampling Freshly Mixed Concrete	12/30/2010
C231	Air Content of Freshly Mixed Concrete by the Pressure Method	12/30/2010
C511	Moist Cabinets, Moist Rooms, and Water Storage Tanks Used in the testing of Hydraulic Cements and Concretes	09/24/2012
C617 (7000 psi and below)	Capping Cylindrical Concrete Specimens	12/30/2010
C1064	Temperature of Freshly Mixed Portland Cement Concrete	12/30/2010
C1231 (7000 psi and below)	Use of Unbonded Caps in Determination of Compressive Strength of Hardened Concrete Cylinders	12/30/2010