

Laboratory Assessment Preparation List

General Assessment Guidance: This document is intended to provide guidance for laboratories preparing for an AASHTO re:source On-Site Laboratory Assessment, specifically with regard to the preparation and availability of materials required for demonstration of the test method(s). Preparing for the assessment will improve the efficiency, productivity, and benefit of the assessment for the laboratory.

This document does not address all of the apparatus and procedural requirements which may be evaluated during the assessment. Please consult the applicable AASHTO or ASTM standard for specific requirements. The laboratory may elect to demonstrate the AASHTO, ASTM, or both versions of the test method. The laboratory should be prepared to present required apparatus and to perform the test method in its entirety. Please contact us at (240) 436-4900 if your laboratory has additional questions with regard to preparing for the On-Site Assessment.

IRON AND STEEL	AASHTO	ASTM	<u>Have a specimen of the specified material ready to test for each test/specification you will demonstrate.</u>
Zinc Coatings on Iron and Steel	M111	A123	
<ul style="list-style-type: none"> Thickness (Microscopy) 	-----	-----	Have equipment to demonstrate thickness by microscopy.
<ul style="list-style-type: none"> Thickness (Stripping) 	T65	A90	Have stripping solution.
<ul style="list-style-type: none"> Thickness (Magnetic) 	-----	E376	Have a magnetic thickness gauge.
Steel Wire	M336	A1064	
<ul style="list-style-type: none"> Bend Test 	-----	-----	Have a specimen. Set up the bend test jig with the appropriate-sized pin.
<ul style="list-style-type: none"> Weld Shear 	-----	-----	Have specimen. Prepare compression machine for test (jig assembly, grip set-up, adjust strain rates, etc.).
<ul style="list-style-type: none"> Tension (Yield, Ultimate, Elongation) 	T244	A370	Have a specimen and be prepared to demonstrate the relevant portions of the tension test.
Externally Threaded Fasteners (Bolts)	-----	F3125	(formerly A325)
Internally Threaded Fasteners (Nuts)	none	A563	
<ul style="list-style-type: none"> Rotational Capacity 	none	-----	Have a bolt and nut specimen ready to test. This test is required for E329 Steel Inspection.
<ul style="list-style-type: none"> Brinell Hardness 	none	E10	Have a bolt or nut specimen, test blocks, and machine accessories available.
<ul style="list-style-type: none"> Rockwell Hardness 	none	E18	Have a bolt or nut specimen, test blocks, and machine accessories available.
<ul style="list-style-type: none"> Ultimate Tensile Strength - Bolts 	T244	F606	Have a bolt ready to test and adjust tensile machine for demonstration.
<ul style="list-style-type: none"> Proof Load Determination - Bolts 	T244	F606	Have a specimen and proof loading apparatus.
<ul style="list-style-type: none"> Proof Load Determination - Nuts 	none	A563	Have a specimen and proof loading apparatus.
Steel Strand, Uncoated Seven-Wire	M203	A416	
<ul style="list-style-type: none"> Tension (Yield, Ultimate, Elongation) 	T244	A1061	Have a specimen and be prepared to demonstrate the relevant portions of the tension test.
Gray Iron Castings	M105	A48	
<ul style="list-style-type: none"> Tension (Yield, Ultimate, Elongation) 	-----	E8	Have a specimen and be prepared to demonstrate the relevant portions of the tension test.

Carbon-Steel Bars, Deformed and Plain	M31	A615	
Low Alloy Steel Bars, Deformed and Plain	none	A706	
Rail Steel and Axle-Steel Bars	M322	A996	
• Testing Mechanical Splices	none	A1034	Have a spliced specimen ready for testing.
• Tension (Yield, Ultimate, Elongation)	T244	A370	Have a specimen and be prepared to demonstrate the relevant portions of the tension test.
• Bend Test	T285	E290	Have a specimen. Set up the bend test jig with the appropriate-sized pin.
Structural Steel	M270	A709	
• Tension (Yield, Ultimate, Elongation)	T244	A6	Have a specimen and be prepared to demonstrate the relevant portions of the tension test.
• Charpy V-Notch	T266*	E23	Have a machined V-notch specimen and Charpy machine ready.
Metallic Coated Steel Wire Rope	M30	A741	
Metallic Coated Steel Sheet ★	none	A653	
• Ductility (Wrap Test) / Adherence	-----	-----	Have specimen.
• Tension (Ultimate Tensile Strength)	T244	A370	Have specimen.
• Mass of Zinc Coating	T65	A90	Have specimen and equipment to determine the mass of zinc coating.
Epoxy Coated Reinforcing Bars	M284	A775	
• Film Thickness	-----	G12	Have specimen. Prepare to demonstrate standardization and calibration of gage.
• Coating Flexibility (Bend Test)	-----	-----	Have a specimen. Set up the bend test jig with the appropriate-sized pin.
• Continuity of Coating (Holidays)	-----	G62	Have coated bar and holiday detector available.
Headed Steel Bars	none	A970	
• Bend Test	none	-----	Have a specimen. Set up the bend test jig with the appropriate-sized pin.
• Tension (Yield, Ultimate, Elongation)	none	A370	Have a specimen and be prepared to demonstrate the relevant portions of the tension test.
Hardened Steel Washers	none	F436	
• Rockwell Hardness	none	E18	Have a washer specimen, test blocks, and machine accessories available.
Anchor Bolts	none	F1554	
• Tension (Yield, Ultimate, Elongation)	none	A370	Have a specimen and be prepared to demonstrate the relevant portions of the tension test.
• Tension (Ultimate <i>finished anchor bolts</i>)	none	F606	Have a finished anchor bolt ready for testing.
Carbon-Steel Bars, Deformed and Plain	-----	A615	
Low Alloy Steel Bars, Deformed and Plain	-----	A706	
• CA Mechanical and Welded Splices	CTM 670	none	Have a spliced specimen ready for testing.
Leeb Hardness	-----	A956	
• Leeb Hardness	-----	A956	Have a specimen ready for testing.