



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Organization of:

Benchmark Holdings, LLC 2710 West 5th Avenue, Eugene, OR 97402

and hereby declares that the Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017

Whereby, technical competence has been confirmed for the associated scope supplement, in the fields of:

Chemical, Dimensional, Mechanical and Non-Destructive Testing (As detailed in the supplement)

Accreditation claims for conformity assessment activities shall only be made from the addresses referenced within this certificate and shall apply solely to those activities identified in the related scope. This Accreditation is granted subject to the Accreditation Body rules governing the Accreditation referred to above, and the Organization hereby commits to observing and complying with those rules in their entirety.

For PJLA:

Initial Accreditation Date:

Issue Date:

Expiration Date:

June 20, 2024

February 04, 2025

April 30, 2027

DRAFT

Accreditation No.:

Certificate No.:

127148

L25-93

Tracy Szerszen President

Perry Johnson Laboratory Accreditation, Inc. (PJLA) 755 W. Big Beaver, Suite 1325 Troy, Michigan 48084 The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjlabs.com





Benchmark Holdings, LLC

2710 West 5th Avenue, Eugene, OR 97402 Contact Name: Chris Battin Phone: 541-484-9212

FIELD OF TEST	ITEMS, MATERIALS, OR PRODUCTS TESTED	COMPONENT, CHARACTERISTIC, PARAMETER TESTED	SPECIFICATION OR STANDARD METHOD	TECHNOLOGY OR TECHNIQUE USED	FLEX CODE	LOCATION OF ACTIVITY
Dimensional	Particleboard	Panel dimensions (length and width)	ANSI A208.1	Tape measure	F1, F2	F, O
Dimensional	Particleboard	Panel Thickness	ANSI A208.1	Micrometer or Caliper	F1, F2	F, O
Dimensional	Particleboard	Panel squareness	ANSI A208.1	Tape measure	F1, F2	F, O
Dimensional	Particleboard	Edge straightness	ANSI A208.1	Straight edge	F1, F2	F, O
Mechanical	Particleboard	Moisture content	ANSI A208.1	Oven-dry moisture content	F1, F2	F, O
Mechanical	Particleboard	Linear expansion	ANSI A208.1	Determination of linear expansion between 50% and 80% relative humidity according to ASTM D1037: Section 24 and notes 48 through 51	F1, F2	F, O
Mechanical	Particleboard	Thickness swell	ANSI A208.1	Determination of thickness swelling after exposure to a single, continuous 24-hour submersion in water according to ASTM D1037: Section 23	F1, F2	F, O
Mechanical	Particleboard	Durability of exterior glue bonding system	ANSI A208.1	Determination of residual modulus of rupture (MOR) according to ASTM D1037: Section 9 after accelerated aging according to ASTM D1037: Section 7	F1, F2	F, O
Mechanical	Particleboard	Internal bond	ANSI A208.1	Determination of internal bond (tension perpendicular to surface) according to ASTM D1037: Section 11	F1, F2	F, O
Mechanical	Particleboard	Modulus of rupture and modulus of elasticity (MOE)	ANSI A208.1	Determination of MOR and/or MOE according to ASTM D1037: Section 9	F1, F2	F, O





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Mechanical	Particleboard	Hardness	ANSI A208.1	Determination of hardness according to ASTM D1037: Section 17	F1, F2	F, O
Mechanical	Particleboard	Face screw-holding capacity	ANSI A208.1	Determination of face-screw holding capacity according to ASTM D1037: Section 16 and Notes 34 and 35, and ANSI A208.1 section 4.3.8	F1, F2	F, O
Mechanical	Particleboard	Edge screw holding capacity	ANSI A208.1	Determination of edge-screw holding capacity according to ASTM D1037: Section 16 and Notes 34 through 36, and ANSI A208.1 section 4.3.9	F1, F2	F, O
Mechanical	Particleboard	Concentrated loading	ANSI A208.1	Universal Test Machine - Compression	F1, F2	F, O
Chemical	Particleboard	Formaldehyde emissions	ANSI A208.1	Testing and certification according to 40 CFR Part 770 (EPA TSCA Title VI), CARB ATCM 93120, and/or CANFER, as applicable.	F1, F2	F, O
Dimensional	Medium Density Fiberboard / Basic Hardboard	Panel dimensions (length and width)	ANSI A208.2	Tape measure	F1, F2	F, O
Dimensional	Medium Density Fiberboard / Basic Hardboard	Panel Thickness	ANSI A208.2	Micrometer or Caliper	F1, F2	F, O
Dimensional	Medium Density Fiberboard / Basic Hardboard	Panel squareness	ANSI A208.2	Tape measure	F1, F2	F, O
Dimensional	Medium Density Fiberboard / Basic Hardboard	Edge straightness	ANSI A208.2	Straight edge	F1, F2	F, O





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Mechanical	Medium Density Fiberboard / Basic Hardboard	Moisture content	ANSI A208.2	Oven-dry moisture content	F1, F2	F, O
Mechanical	Medium Density Fiberboard / Basic Hardboard	Linear expansion	ANSI A208.2	Determination of linear expansion between 50% and 80% relative humidity according to ASTM D1037: Section 24 and notes 48 through 51	F1, F2	F, O
Mechanical	Medium Density Fiberboard / Basic Hardboard	Thickness swell	ANSI A208.2	Determination of thickness swelling after exposure to a single, continuous 24-hour submersion in water according to ASTM D1037: Section 23	F1, F2	F, O
Mechanical	Medium Density Fiberboard / Basic Hardboard	Reduced thickness swell	ANSI A208.2	Determination of thickness swelling after exposure to a single, continuous 24-hour submersion in water according to ASTM D1037: Section 23	F1, F2	F, O
Mechanical	Medium Density Fiberboard / Basic Hardboard	Advanced bond integrity	ANSI A208.2	Determination of residual modulus of rupture (MOR) according to the provisions of ASTM D1037: Section 9 after accelerated aging according to ASTM D1037: Section 7	F1, F2	F, O
Mechanical	Medium Density Fiberboard / Basic Hardboard	Modulus of rupture and modulus of elasticity (MOE)	ANSI A208.2	Determination of MOR and/or MOE according to ASTM D1037: Section 9 or Section 33	F1, F2	F, O
Mechanical	Medium Density Fiberboard / Basic Hardboard	Internal bond	ANSI A208.2	Determination of internal bond (tension perpendicular to surface) according to ASTM D1037: Section 11 or Section 35	F1, F2	F, O





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Mechanical	Medium Density Fiberboard / Basic Hardboard	Face screw-holding capacity	ANSI A208.2	Determination of face-screw holding capacity according to ASTM D1037: Section 16 and Notes 34 and 35, and ANSI A208.2 section 4.3.8	F1, F2	F, O
Mechanical	Medium Density Fiberboard / Basic Hardboard	Edge screw holding capacity	ANSI A208.2	Determination of edge-screw holding capacity according to ASTM D1037: Section 16 and Notes 34 through 36, and ANSI A208.2 section 4.3.9	F1, F2	F, O
Chemical		Formaldehyde emissions	ANSI A208.2	Testing and certification according to 40 CFR Part 770 (EPA TSCA Title VI), CARB ATCM 93120, and/or CANFER, as applicable.	F1, F2	F, O
Dimensional	Plywood	Panel dimensions (length and width)	ANSI/HPVA HP-1	Tape measure	F1, F2	F, O
Dimensional	Plywood	Panel thickness	ANSI/HPVA HP-1	Micrometer or Caliper	F1, F2	F, O
Dimensional	Plywood	Panel squareness	ANSI/HPVA HP-1	Tape measure	F1, F2	F, O
Dimensional	Plywood	Panel straightness	ANSI/HPVA HP-1	Straight edge	F1, F2	F, O
Non-destructive	Plywood	Veneer and panel grade/ appearance/ construction	ANSI/HPVA HP-1	Visual evaluation	F1, F2	F, O
Mechanical	Plywood	Dry shear test	ANSI/HPVA HP-1	Determination of adhesive bond shear strength by tension loading	F1, F2	F, O
Mechanical	Plywood	Cyclic-boil shear test	ANSI/HPVA HP-1	Determination of adhesive bond shear strength by tension loading after cyclic boiling and drying	F1, F2	F, O
Mechanical	Plywood	Two-cycle boil test	ANSI/HPVA HP-1	Visual evaluation of adhesive bond delamination after cyclic boiling and drying	F1, F2	F, O





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Mechanical	Plywood	Three-cycle soak test	ANSI/HPVA HP-1	Visual evaluation of adhesive bond delamination after cyclic submersion in water and drying	F1, F2	F, O
Mechanical	Plywood	Moisture content	ANSI/HPVA HP-1	Oven-dry moisture content	F1, F2	F, O
Chemical	Plywood	Formaldehyde emissions	ANSI/HPVA HP-1	Testing and certification according to the provisions of 40 CFR Part 770 (EPA TSCA Title VI), CARB ATCM 93120, and/or CANFER, as applicable.	F1, F2	F, O
Mechanical	Steels, stainless steels, and related alloys	Tension	ASTM A370	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Steels, stainless steels, and related alloys	Bend	ASTM A370	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Steels, stainless steels, and related alloys	Hardness - Rockwell	ASTM A370	Hardness testing according to ASTM E18 using a Rockwell Hardness Tester - A, B, and C Scales only	F1, F2	F, O
Mechanical	Deformed steel reinforcing bars in cut lengths, with a head attached to one or both ends, for concrete reinforcement	Tensile test	ASTM A970/ ASTM A970M	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Deformed steel reinforcing bars in cut lengths, with a head attached to one or both ends, for concrete reinforcement	Bend test	ASTM A970/ ASTM A970M	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Mechanically spliced steel reinforcing bars	Monotonic tension test	ASTM A1034	Universal Test Machine - Tension	F1, F2	F, O





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Mechanical	Mechanically spliced steel reinforcing bars	Monotonic compression test	ASTM A1034	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Mechanically spliced steel reinforcing bars	Cyclic load test	ASTM A1034	Universal Test Machine - Tension and/or Compression	F1, F2	F, O
Mechanical	Mechanically spliced steel reinforcing bars	High-cycle fatigue test	ASTM A1034	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Mechanically spliced steel reinforcing bars	Slip test	ASTM A1034	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Mechanically spliced steel reinforcing bars	Differential elongation test	ASTM A1034	Universal Test Machine - Tension and/or Compression	F1, F2	F, O
Mechanical	Mechanically spliced steel reinforcing bars	Low-temperature test	ASTM A1034	Universal Test Machine - Tension and/or Compression after low temperature conditioning	F1, F2	F, O
Non-destructive	Lumber / Wood-based products	Record of Heartwood and Sapwood	ASTM D143	Visual evaluation	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Static bending	ASTM D143	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Compression parallel to grain	ASTM D143	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Compression perpendicular to grain	ASTM D143	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Hardness	ASTM D143	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Shear parallel to grain	ASTM D143	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Cleavage	ASTM D143	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Tension parallel to grain	ASTM D143	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Tension perpendicular to grain	ASTM D143	Universal Test Machine - Tension	F1, F2	F, O





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Mechanical	Lumber / Wood-based products	Nail withdrawal	ASTM D143	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Specific gravity and shrinkage in volume	ASTM D143	Determination of specific gravity according to ASTM D2395 Determination of volumetric shrinkage after drying using volume by water immersion methods	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Radial and tangential shrinkage	ASTM D143	Determination of radial and/or tangential shrinkage after drying using length measurement methods	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Moisture determination	ASTM D143	Oven-dry moisture content	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Flexure	ASTM D198	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Compression parallel to grain (Short Specimen)	ASTM D198	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Compression parallel to grain (Long Specimen)	ASTM D198	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Tension	ASTM D198	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Lumber / Wood-based products	Torsion	ASTM D198	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Wood Products / Adhesives	Shear strength Wood fiber failure	ASTM D905	Universal Test Machine - Compression Visual Evaluation	F1, F2	F, O
Mechanical	Dried films of paint, varnish, lacquer and related products	Coating thickness	ASTM D1005	Procedure A: Stationary micrometer for measuring coatings applied to plane rigid surfaces	F1, F2	F, O
Mechanical	Dried films of paint, varnish, lacquer and related products	Coating thickness	ASTM D1005	Procedure B: Stationary micrometer for measuring free films	F1, F2	F, O





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Mechanical	Dried films of paint, varnish, lacquer and related products	Coating thickness	ASTM D1005	Procedure C: Hand-held micrometer for measuring coatings applied to plane rigid surfaces	F1, F2	F, O
Mechanical	Dried films of paint, varnish, lacquer and related products	Coating thickness	ASTM D1005	Procedure D: Hand-held micrometer for measuring free films	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Moisture content	ASTM D1037	Oven-dry moisture content	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Accelerated aging	ASTM D1037	Cyclic aging pre-treatment by water immersion, steaming, freezing, and heating followed by post aging conditioning and mechanical testing	F1, F2	F, O
Dimensional	Wood-Based Fiber and Particle Panels	Dimensions/Size	ASTM D1037	Tape Measure Caliper Micrometer	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Specific Gravity	ASTM D1037	Volume by Measurement	F1, F2	F, O
Non-destructive	Wood-Based Fiber and Particle Panels	Surface Finish	ASTM D1037	Visual evaluation	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Static Bending	ASTM D1037	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Tension parallel to surface	ASTM D1037	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Tension perpendicular to surface	ASTM D1037	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Compression parallel to surface	ASTM D1037	Universal Test Machine - Compression (method C only)	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Lateral nail resistance`	ASTM D1037	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Nail withdrawal	ASTM D1037	Universal Test Machine - Tension	F1, F2	F, O





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Mechanical	Wood-Based Fiber and Particle Panels	Nail head pull through	ASTM D1037	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Direct screw withdrawal	ASTM D1037	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Hardness	ASTM D1037	Universal Test Machine – Compression	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Hardness modulus	ASTM D1037	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Shear in the plane of the panel	ASTM D1037	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Glue line shear (block type)	ASTM D1037	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Falling ball impact	ASTM D1037	Falling ball impact apparatus	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Water Absorption/Thickness Swelling	ASTM D1037	Determination of water absorption/ thickness swelling using a micrometer or caliper after exposure to either: • 2-plus 22-hour submersion in water Single, continuous 24-hour submersion in water	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Linear Expansion with change in moisture content	ASTM D1037	Determination of linear expansion using dial gage comparator after exposure from 50% to 90% relative humidity	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Interlaminar shear	ASTM D1037	Universal Test Machine - Compression loaded by plates	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Edgewise shear	ASTM D1037	Universal Test Machine - Compression loaded by rails	F1, F2	F, O





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Mechanical	Wood-Based Fiber and Particle Panels	Compression-shear	ASTM D1037	Universal Test Machine - Compression loaded by axial loading	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Thickness - hardboard	ASTM D1037	Micrometer	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Modulus of rupture - hardboard	ASTM D1037	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Tension parallel to surface - hardboard	ASTM D1037	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Tension perpendicular to surface - hardboard	ASTM D1037	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Water absorption/thickness swelling - hardboard	ASTM D1037	Determination of water absorption/ thickness swelling using a micrometer or caliper after a single, continuous 24-hour submersion in water	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Moisture content - hardboard	ASTM D1037	Oven-dry moisture content	F1, F2	F, O
Mechanical	Wood-Based Fiber and Particle Panels	Specific gravity - hardboard	ASTM D1037	Volume by measurement	F1, F2	F, O
Mechanical	Structural laminated wood members	Adhesive joint integrity	ASTM D1101	Pretreatment by vacuum/pressure cycling and drying followed by visual evaluation and measurement of adhesive joint delamination	F1, F2	F, O
Mechanical	Wood and Wood- Based Products	Ash in wood	ASTM D1102	Evaluation of residual ash in wood after dry oxidation at 580°C to 600°C	F1, F2	F, O
Mechanical	Wood Products / Fasteners	Fastener withdrawal strength	ASTM D1761	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Wood / Wood Products	Moisture	ASTM D2395	Oven-Dry Moisture Content	F1, F2	F, O





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Mechanical	Wood / Wood Products	Density	ASTM D2395	Volume by Measurement Volume by Water Immersion Volume by Flotation Tube Forstner Bit Increment Core Chips Full-Size Members	F1, F2	F, O
Mechanical	Wood / Wood Products	Specific Gravity	ASTM D2395	Volume by Measurement Volume by Water Immersion Volume by Flotation Tube Forstner Bit Increment Core Chips Full-Size Members	F1, F2	F, O
Mechanical	Adhesives or adhesive-bonded wood materials, including treated wood	Resistance to shear by compression loading	ASTM D2559	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Planar shear loaded by plates	ASTM D2718 Method A	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Planar shear induced by five-point bending	ASTM D2718 Method B	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Center point flexure test	ASTM D3043 Method A	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Two-point flexure test	ASTM D3043 Method B	Universal Test Machine – Compression	F1, F2	F, O





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Mechanical	Plywood / Wood- Based Panel Products	Large panel bending stiffness and strength	ASTM D3043 Method C	QL3 Machine – Midordinate Deflection	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Flexure test for quality assurance	ASTM D3043 Method D	Universal Test Machine – Compression	F1, F2	F, O
Mechanical	Painted, varnished, lacquered, or other coated products	Coating adhesion	ASTM D3359	Visual evaluation of coating adhesion using either the X-cut or crosshatch method	F1, F2	F, O
Mechanical	Painted, varnished, lacquered, or other coated products	Wear resistance	ASTM D4060	Evaluation of coating wear resistance using Taber rotary abrader	F1, F2	F, O
Mechanical	Wood / Wood Products	Moisture content	ASTM D4442	Oven-Dry Moisture Content	F1, F2	F, O
Mechanical	Finger-jointed lumber and related wood products	Adhesive bond performance of finger-jointed wood products	ASTM D4688	Measurement of finger joint strength and visual evaluation of wood fiber failure after tension loading, with or without pre-treatment	F1, F2	F, O
Mechanical	Stress-graded lumber and other wood-based structural materials	Bending edgewise	ASTM D4761	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Stress-graded lumber and other wood-based structural materials	Bending flat-wise - center point loading	ASTM D4761	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Stress-graded lumber and other wood-based structural materials	Bending flat-wise - third-point loading	ASTM D4761	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Stress-graded lumber and other wood-based structural materials	Axial strength in tension	ASTM D4761	Universal Test Machine – Tension	F1, F2	F, O





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Mechanical	Stress-graded lumber and other wood-based structural materials	Axial strength in compression	ASTM D4761	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Prefabricated wood I- joists	Shear capacity qualification	ASTM D5055	Universal Test Machine Compression	F1, F2	F, O
Mechanical	Prefabricated wood I- joists	Reaction capacity qualification	ASTM D5055	Universal Test Machine Compression	F1, F2	F, O
Mechanical	Prefabricated wood I- joists	Moment capacity qualification	ASTM D5055	Universal Test Machine - Compression and tension	F1, F2	F, O
Mechanical	Prefabricated wood I- joists	End joint qualification	ASTM D5055	Universal Test Machine - Tension	F1, F2	F, O
Mechanical	Prefabricated wood I- joists	Stiffness capacity qualification	ASTM D5055	Universal Test Machine Compression	F1, F2	F, O
Non-destructive	Plywood / Wood- Based Panel Products	Treatment	ASTM D5516 Section 6.2	Fire retardant pressure treatment (witness basis only)	F1, F2	О
Non-destructive	Plywood / Wood- Based Panel Products	Post-Treatment Drying	ASTM D5516 Section 6.3	Kiln drying (witness basis only)	F1, F2	О
Mechanical	Plywood / Wood- Based Panel Products	Flexure Test	ASTM D5516 Section 6.4, 6.5 and 7	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Joist hangers and similar products	Allowable loads of joist hangers for wood materials	ASTM D7147	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Joist hangers and similar products	Tensile testing of steel used to produce joist hangers	ASTM D7147	Evaluation of tensile strength according to ASTM E8/E8M	F1, F2	F, O
Mechanical	Joist hangers and similar products	Fastener bending yield strength	ASTM D7147	Evaluation of fastener bending yield strength according to ASTM F1575 (excluding bolts tested according to ASTM F606/F606M)	F1, F2	F, O





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Mechanical	Metallic materials	Tension testing including yield strength, yield point elongation, tensile strength, elongation, and reduction of area	ASTM E8	Universal Test Machine – Tension	F1, F2	F, O
Mechanical	Metallic materials	Rockwell hardness	ASTM E18	Rockwell Hardness Tester - A, B, and C Scales only	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products / Other Panel Products	Compressive Load	ASTM E72	Compressive Load Apparatus (witness basis only)	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products / Other Panel Products	Tensile Load	ASTM E72	Tensile Load Apparatus (witness basis only)	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products / Other Panel Products	Transverse Load - Specimen Horizontal	ASTM E72	Transverse Load Apparatus - Horizontal (witness basis only)	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products / Other Panel Products	Transverse Load - Specimen Vertical	ASTM E72	Transverse Load Apparatus - Vertical (witness basis only)	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products / Other Panel Products	Concentrated Load	ASTM E72	Concentrated Load Apparatus (witness basis only)	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products / Other Panel Products	Impact Load	ASTM E72	Impact Load Apparatus (witness basis only)	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products / Other Panel Products	Racking Load (dry)	ASTM E72	Racking Load Apparatus	F1, F2	F, O





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Mechanical	Plywood / Wood- Based Panel Products / Other Panel Products	Racking Load (wet)	ASTM E72	Wetting room Racking Load Apparatus	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Concentrated static load	ASTM E661	QL2 Machine	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Concentrated impact load	ASTM E661	QL2 Machine	F1, F2	F, O
Mechanical	Nails, screws and similar fasteners	Bending yield moment	ASTM F1575	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Veneer plywood / Blockboard / Laminboard / Other wood panel products	Adhesive bond quality	BS EN 314-1	Test specimen pre-treatment followed by measurement of adhesive bond shear strength by tension loading to failure and/or visual evaluation of residual wood fiber failure	F1, F2	F, O
Mechanical	Veneer plywood / Blockboard / Laminboard / Other wood panel products	Adhesive bond quality	BS EN 314-2	Test specimen pre-treatment followed by measurement of adhesive bond shear strength by tension loading to failure and/or visual evaluation of residual wood fiber failure	F1, F2	F, O
Mechanical	Plywood / Wood- based panel products / Other wood materials	Moisture content	BS EN 322	Oven dry moisture content	F1, F2	F, O
Mechanical	Plywood / Wood- based panel products / Other wood materials	Density	BS EN 323	Scale / balance Volume by Measurement	F1, F2	F, O
Mechanical	Plywood / Wood- based panel products / Other wood materials	Sampling and cutting of test pieces and expression of test results	BS EN 326-1	Various cutting and trimming equipment Mathematical Calculation	F1, F2	F, O





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Non-destructive	Plywood / Wood- based panel products / Other wood materials	Sampling and analysis for initial type testing and factory production control	BS EN 326-2	Sampling and analysis by attributes Sampling and analysis by variables	F1, F2	F, O
Mechanical	Joist hangers and similar products	Direct load capacity tests	ICC-ES AC 13, Section 3.0	Evaluation according to ASTM D7147	F1, F2	F, O
Mechanical	Joist hangers and similar products	Alternative test method for direct load capacity testing	ICC-ES AC 13, Section 3.0	Evaluation according to ASTM D1761 and ICC-ES AC 13, Appendix A	F1, F2	F, O
Mechanical	Joist hangers and similar products	Torsional moment capacity test	ICC-ES AC 13, Section 3.0	Evaluation according to ASTM D7147 or ASTM D1761	F1, F2	F, O
Mechanical	Joist hangers and similar products	Load capacity of hurricane ties	ICC-ES AC 13, Section 3.0	Universal Test Machine - Compression	F1, F2	F, O
Mechanical	Mechanically spliced steel reinforcing bars	Type 1, Type 2, and Type 2HS Splices	ICC-ES AC 133, Section 4.0	Monotonic tension, compression, and cyclic tension/ compression tests according to ASTM A370 and ICC-ES AC 133 section 4	F1, F2	F, O
Mechanical	Headed deformed bars	Cyclic tension followed by monotonic tension	ICC-ES AC 347, Section 4.0	Cyclic tension followed by monotonic tension according to ASTM A370	F1, F2	F, O
Mechanical	Headed deformed bars	Bend test of welded headed products	ICC-ES AC 347, Section 4.0	Bend testing according to ASTM A970	F1, F2	F, O
Mechanical	Headed deformed bars	Heat rigidity	ICC-ES AC 347, Section 4.0	Evaluation of residual deformation using either engineering analysis or by tension loading	F1, F2	F, O
Mechanical	Painted, varnished, lacquered, or other coated products	Coating adhesion	ISO 2409	Visual evaluation of coating adhesion using the crosshatch cutting method	F1, F2	F, O





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Mechanical	Painted, varnished, lacquered, or other coated products	Coating thickness	ISO 2808, Section 5.2.4 and 5.2.4.1.1.2	Micrometer, dial comparator, or dial indicator Stationary base Chemical or mechanical means to remove coatings or films	F1, F2	F, O
Mechanical	Laminate flooring	Thickness swell	NALFA LF-01, Section 3.2	Evaluation of thickness swelling using a micrometer before and after submersion in water	F1, F2	F, O
Mechanical	Laminate flooring	Wear resistance	NALFA LF-01, Section 3.7	Evaluation of wear resistance of coatings and/or high-pressure decorative laminates using a Taber rotary abrader	F1, F2	F, O
Mechanical	Laminate flooring	Formaldehyde emissions	NALFA LF-01, Section 3.11	Testing and certification according to 40 CFR Part 770 (EPA TSCA Title VI), CARB ATCM 93120, and/or CANFER, as applicable.	F1, F2	F, O
Mechanical	Plywood	Panel dimensions (length and width)	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, 5.10)	Tape measure	F1, F2	F, O
Mechanical	Plywood	Panel thickness	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, 5.10)	Micrometer	F1, F2	F, O
Dimensional	Plywood	Panel squareness	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, 5.10)	Tape measure	F1, F2	F, O





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Dimensional	Plywood	Panel straightness	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, 5.10)	Straight edge	F1, F2	F, O
Non-destructive	Plywood	Panel grade/appearance	United States Department of Commerce Product Standard PS-1 (Sections 5.3 - 5.9)	Visual evaluation	F1, F2	F, O
Mechanical	Plywood	Bond performance - vacuum/pressure test	United States Department of Commerce Product Standard PS-1 (Sections 5.7, 5.8.6, 5.8.7 and 6.1)	Visual evaluation of wood fiber failure after vacuum/pressure pretreatment followed by shear testing	F1, F2	F, O
Mechanical	Plywood	Bond performance - boiling test	United States Department of Commerce Product Standard PS-1 (Sections 5.7, 5.8.6, 5.8.7, and 6.1)	Visual evaluation of wood fiber failure after boiling pre-treatment followed by shear testing	F1, F2	F, O
Mechanical	Plywood	Bond performance - heat performance test	United States Department of Commerce Product Standard PS-1 (Sections 5.7, 5.8.6, 5.8.7, and 6.1)	Visual evaluation of adhesive bond performance after exposure to open flame	F1, F2	F, O
Mechanical	Plywood	Moisture content	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, 5.11, and	Oven-dry moisture content	F1, F2	F, O





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			6.1.4)			
Mechanical	Plywood	Scarf and finger joint strength	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, 5.9, and 6.1.5)	Universal test machine - Tension	F1, F2	F, O
Mechanical	Plywood	Scarf joint bond performance	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, 5.9, and 6.1.5)	Visual evaluation of scarf joint wood fiber failure after vacuum/pressure and boiling pretreatments followed by shear testing	F1, F2	F, O
Mechanical	Plywood	Finger joint bond performance	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, 5.9, and 6.1.5)	Visual evaluation of finger joint bond performance using a wedge or chisel after vacuum/ pressure and boiling pre-treatments	F1, F2	F, O
Mechanical	Plywood	Concentrated static load	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, and 6.2.1)	QL2 machine	F1, F2	F, O
Mechanical	Plywood	Concentrated impact load	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, and 6.2.1)	QL2 machine	F1, F2	F, O





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Mechanical	Plywood	Uniform load	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, and 6.2.2)	Uniform load machine	F1, F2	F, O
Mechanical	Plywood	Large panel bending stiffness and strength	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, and 6.2.3)	QL3 Machine - Midordinate Deflection	F1, F2	F, O
Mechanical	Plywood	Planar shear strength loaded by plates	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, and 6.2.4)	Universal test machine - Compression loaded by plates	F1, F2	F, O
Mechanical	Plywood	Planar shear strength loaded by five-point bending	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, and 6.2.4)	Universal test machine - Compression loaded by 5-point bend	F1, F2	F, O
Mechanical	Plywood	Shear through the thickness strength	United States Department of Commerce Product Standard PS-1 (Sections 5.8.6, 5.8.7, and 6.2.5)	Universal test machine - Compression by two rail shear	F1, F2	F, O
Mechanical	Plywood	Racking load (dry)	United States Department of Commerce Product Standard PS-1 (Table 2, Note (c) and Section	Racking load apparatus	F1, F2	F, O





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			5.8.6)			
Dimensional	Plywood / Wood- Based Panel Products	Panel dimensions (length, and width)	United States Department of Commerce Product Standard PS-2 (Section 5.2.1)	Tape measure	F1, F2	F, O
Dimensional	Plywood / Wood- Based Panel Products	Panel thickness	United States Department of Commerce Product Standard PS-2 (Sections 5.2.1 and 7.12)	Micrometer	F1, F2	F, O
Dimensional	Plywood / Wood- Based Panel Products	Panel squareness	United States Department of Commerce Product Standard PS-2 (Section 5.2.1)	Tape measure	F1, F2	F, O
Non-destructive	Plywood / Wood- Based Panel Products	Panel grade/appearance	United States Department of Commerce Product Standard PS-2 (Sections 4, 5.2.2, 6.3 and 6.3.1)	Visual evaluation	F1, F2	F, O
Dimensional	Plywood / Wood- Based Panel Products	Panel straightness	United States Department of Commerce Product Standard PS-2 (Section 5.2.1)	Straight edge	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Concentrated static load	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	QL2 machine	F1, F2	F, O





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Mechanical	Plywood / Wood- Based Panel Products	Concentrated impact load	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	QL2 machine	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Uniform load	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Uniform load machine	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Racking load (dry)	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Racking load apparatus	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Fastener-holding resistance test - lateral load	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Universal test machine - withdrawal by lateral tension load	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Fastener-holding resistance test - Direct withdrawal load	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Universal test machine - withdrawal by direct tension load	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Large panel bending stiffness and strength	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	QL3 Machine - Midordinate Deflection	F1, F2	F, O





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Mechanical	Plywood / Wood- Based Panel Products	Small static bending test for OSB	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Universal test machine - Compression	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Small static bending test for composites and mat-formed panels	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Universal test machine - Compression	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Linear expansion from oven-dry to vacuum/pressure soak	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Determination of linear expansion using dial gage comparator after pre-conditioning at 103 ± 2 deg C followed by vacuum/pressure treatment	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Linear expansion from 50% relative humidity to vacuum/pressure soak	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Determination of linear expansion using dial gage comparator after pre-conditioning at 103 ± 2 deg C followed by conditioning at 21 ± 6 deg C; 50 ± 5% relative humidity	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Linear expansion and thickness swell after exposure to relative humidity	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Determination of linear expansion and thickness swelling after exposure from 50% to 90% relative humidity	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Moisture content	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Oven-dry moisture content	F1, F2	F, O





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Mechanical	Plywood / Wood- Based Panel Products	Probe test for delamination	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Visual evaluation by probe	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Adhesive mold test - plywood	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 5.4, 6.0, and 7.0)	Bond performance strength retention after exposure to mold (not applicable to panels made using phenolic resins)	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Adhesive mold test - OSB, mat-formed panels, and composite panels	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Small static bending strength retention after exposure to mold (not applicable to panels made using phenolic resins)	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Adhesive bacteria test - plywood	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Bond performance strength retention after exposure to bacteria (not applicable to panels made using phenolic resins)	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Adhesive bacteria test - OSB, mat-formed panels, and composite panels	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Small static bending strength retention after exposure to bacteria (not applicable to panels made using phenolic resins)	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Moisture cycle test for bond performance (single cycle test)	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Vacuum/pressure pre-treatment followed by oven drying (single cycle) and bond performance testing	F1, F2	F, O





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Mechanical	Plywood / Wood- Based Panel Products	Moisture cycle test for delamination and strength retention (six- cycle test)	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	Vacuum/pressure pre-treatment followed by oven drying (six cycle) and bond performance or strength retention testing	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Bond performance test for plywood with knots and knotholes	United States Department of Commerce Product Standard PS-2 (Sections 5.3, 6, and 7)	QL2 machine	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Radial probe test	United States Department of Commerce Product Standard PS-2 (Sections 5.3,, 6, and 7)	Pre-treatment (either 72-hour water spray, 72-hour water soak, or vacuum/pressure treatment) followed by visual evaluation with probe	F1, F2	F, O
Mechanical	Plywood / Wood- Based Panel Products	Deadweight bending stiffness	United States Department of Commerce Product Standard PS-2 (Section 7.20)	Static weight bending stiffness apparatus Deflection measuring device	F1, F2	F, O
Chemical	Plywood / Medium Density Fiberboard (MDF) / Thin-Medium Density Fiberboard (Thin-MDF) /	Formaldehyde emissions	40 CFR Part 770: U.S. EPA Toxic Substances Control Act (TSCA) Title VI: Formaldehyde Emission Standards for Composite	Formaldehyde emissions sampling and analysis according to ASTM E1333, ASTM D6007, ASTM D5582 and/or other referenced test methods	F1, F2	F, O





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	Particleboard (PB) / Laminated Products		Wood Products			
Chemical	Plywood / Wood- Based Panel Products / Laminated Products / Other furniture and building products	Formaldehyde and other carbonyl compounds	ASTM D5197	Air sampling at a rate of 0.5 to 1.50 L/minute following by analysis using Ultra-High Performance Liquid Chromatography (UHPLC)	F1, F2	F, O
Chemical	Plywood / Wood- Based Panel Products / Laminated products / Wood	Formaldehyde emissions	ASTM D5582	Air sampling by desiccator followed by chromotropic acid analysis	F1, F2	F, O
Chemical	Plywood / Wood- Based Panel Products / Laminated products / Wood	Formaldehyde emissions	ASTM D6007	Air sampling using a small chamber with a volume of 0.02 to 1m ³ followed by either chromotropic acid analysis or UHPLC analysis according to ASTM D5197	F1, F2	F, O
Chemical	Plywood / Wood- Based Panel Products / Laminated products / Wood	Formaldehyde emissions	ASTM E1333	Air sampling using a large chamber with a volume of at least 22m³ followed by either chromotropic acid analysis or UHPLC analysis according to ASTM D5197	F1, F2	F, O
Chemical	Plywood / Medium Density Fiberboard (MDF) / Thin-Medium Density Fiberboard (Thin-MDF) /	Formaldehyde emissions	Canada Formaldehyde Emissions from Composite Wood Products Regulations (SOR/2021-148 or as amended) and Testing	Formaldehyde emissions sampling and analysis according to ASTM E1333, ASTM D6007, ASTM D5582 and/or other referenced test methods	F1, F2	F, O





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Accreditation is granted to the facility to perform the following conformity assessment activities:

	FIELD OF TEST	ITEMS, MATERIALS, OR PRODUCTS	COMPONENT, CHARACTERISTIC.	SPECIFICATION OR STANDARD METHOD	TECHNOLOGY OR TECHNIQUE USED	FLEX CODE	LOCATION OF
		TESTED	PARAMETER TESTED	2			ACTIVITY
Ī		Particleboard (PB) /		Directive			
		Laminated Products					

1. Location of activity:

Location	Location
Code	
F	Conformity assessment activity is performed at the CABs fixed facility
O	Conformity assessment activity is performed onsite at the CABs customer location

2. Flex Code:

- F0- Fixed scope item. No deviations allowed to the line item as identified, except for updating to the most recent version of an accredited standard method after verification.
- F1- Laboratory has the capability to test a new item, material, matrix, or product similar in composition to item, material, matrix, or product identified on the scope
- F2- Laboratory has the capability to introduce the newest revision of an accredited authoritative standard method (with no modifications) identified on the scope
- F3- Laboratory has the capability to introduce a parameter/component/analyte to an accredited test method identified on the scope
- F4- Laboratory has the capability to introduce a new revision of an accredited non-standard method using the same technology or technique identified on the scope
- F5- Laboratory has the capability to introduce a validated method that is equivalent to an accredited method (using same technology or technique) identified on the scope