

**Miami-Dade County, Florida**

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES

BOARD AND CODE ADMINISTRATION DIVISON

PRODUCT CONTROL SECTION

Laboratory Certificate

MIAMI-DADE COUNTY  
APPROVED

11805 S.W. 26 Street-Room 208  
Miami, Florida 33175-2474  
T (786) 315-2590 Fax (786) 315-2599

This certifies that IAPMO R & T Lab located at 5001 E Philadelphia Street, Ontario, CA 91761 is an approved Testing Laboratory in accordance with Miami-Dade County Department of Regulatory and Economic Resources and Protocol TAS301-94, and is Certified to perform the following tests:

ANSI National Accreditation Board Certificate No. AT-1479

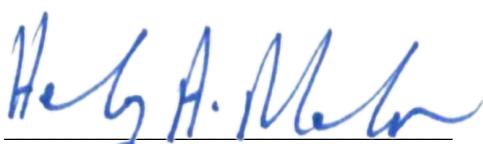
Results of the above mentioned test shall be properly submitted to the Miami-Dade County Department of Regulatory and Economic Resources per TAS301-94, along with all other documentation required for the approval of products. Approved engineer(s) for this laboratory:

Barry Alan Johnson, P.E.; Woods Fogleman McRoy, P.E.

**This Certification and Registration Approved: November 20, 2025**

**This Certification and Registration Expires : December 31, 2030**

**Certification No. : 25-1105.01** **Renews: 22-0707.02**



Helmy A. Makar, P.E., M.S.  
Product Control Section Supervisor  
Product Control Section



Americo Segura, M.S., CGC  
Quality Assurance Unit Supervisor  
Product Control Section

The Miami-Dade County Department of Regulatory and Economic Resources reserves the right to remove this certification for non-compliance with rules and regulations as set by Protocol TAS301-94.



# CERTIFICATE OF ACCREDITATION

**The ANSI National Accreditation Board**

Hereby attests that

**IAPMO R&T Lab &  
IAPMO Institute of Building Technology (IBT)  
5001 E. Philadelphia Street  
Ontario, CA 91761**

Fulfils the requirements of

**ISO/IEC 17025:2017**

In the field of

**TESTING**

This certificate is valid only when accompanied by a current scope of accreditation document.  
The current scope of accreditation can be verified at [www.anab.org](http://www.anab.org).

Jason Stine, Vice President

Expiry Date: 30 August 2026

Certificate Number: AT-1479



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory  
quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



## SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

### IAPMO R&T Lab & IAPMO Institute of Building Technology (IBT)

5001 E. Philadelphia Street  
Ontario, CA 91761

Judy Dolhof Phone: 909 472 4100  
[judy.dolhof@iaptmrl.org](mailto:judy.dolhof@iaptmrl.org) www.iaptmrl.org  
and www.iapmoibt.org

### TESTING

ISO/IEC 17025 Accreditation Granted: **30 August 2024**

Certificate Number: **AT-1479** Certificate Expiry Date: **30 August 2026**

#### Mechanical and Construction Materials

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Material, Hydraulic Performance, Dimensions, Load Tests	ASME A112.19.2 / CSAB45.1, AS 1172.1, AS 1172.6, AS/NZS 6400 ASME A112.4.2  EPA WaterSense High Efficiency Flushing Urinal Specification, Version 1.0  EPA WaterSense Specification for Tank-Type Toilets, Version 1.2  EPA WaterSense Specification for Flushometer-Valve Water closets, Version 1.0	Water Closets, Urinals, Lavatories, Sinks, Bidets	Flow meter, Pressure and temperature gauges, Torque meter, Scale

**Mechanical and Construction Materials**

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Material Identification Load Tests Hair Entrapment Test Water Retention Test	ASME A112.19.15, ASME A112.19.7 / CSA B45.10	Hydromassage Bathtub Appliances	Flow Meter, Dial Gauge, Force Gauge, Weight Scale
UV Testing Material Identification Impact Test Deflection Test Load Test Vacuum Test Hair and Body Entrapment Test Finger Entrapment Test	APSP-16	Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, Hot Tubs	UV Chamber, Flow Meter, Pressure Gauges, Finger Probe, Load Cell
Backflow Prevention Test Mechanical Measurements Material Identification Crossflow Temperature Control Test Coatings Test Pressure and Temperature Test Flow Rate Test Force and Torque Tests Mechanical Cycle Test Bend Test	ASME A112.18.1/ CSA B125.1, ASME A112.18.1M-1996, ASME A112.18.3 ASSE 1016, ASSE 1017, ASSE 1066, ASTM B456, ASTM B571, ASTM G85, ASTM B368, ASTM B604, ASTM D3359, ASTM B117, AS/NZS 3662, AS 3718	Plumbing Supply Fittings	Life cycle tester, Flow meter, Pressure and temperature gauges, XRF analyzer, Corrosion chamber, Torque Wrench, Force Gage, Calipers
Flow Rate Test	EPA WaterSense High Efficiency Lavatory Faucet Specification, Version 1.0	Lavatory Faucets	Flow meter, Pressure and temperature gauges
Flow Rate Test Spray Force Test Spray Coverage Test	EPA WaterSense Specification for Showerheads, Version 1.1	Shower Heads	Flow meter, Pressure and temperature gauges, Force Gage, Scale
Pressure Test Life Cycle Test Corrosion/Coatings Test Flow Rate Test Materials Identification Test Dimensional Measurements Load Test	ASME A112.18.2/CSA B125.2	Plumbing Waste Fittings	Life cycle tester, Flow Meter, Pressure and Temperature Gauges, XRF Analyzer, Corrosion Chamber, Tensile Frame

This Scope of Accreditation, version 027, was last updated on: 10 September 2025 and is valid only when accompanied by the Certificate.

Page 2 of 11

**Mechanical and Construction Materials**

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Hydrostatic Test Reduced Flowing Pressure Test Deviation Test Minimum Reduced Pressure Test Reduced Pressure Adjustment Range Test Capacity Test By- Pass Relief Valve Test Opening Pressure Differential Test Materials Identification Test	ASSE 1003	Water Pressure Reducing Valves	Vacuum Tank, XRF Analyzer, Flow Meter, Pressure and Temperature Gauges
Hydrostatic Pressure Test Water Flow Capacity and Pressure Loss Test Deterioration Test Resistance to Bending Test Life Cycle Test Self-draining Capabilities Test Low Head BackPressure Test Atmospheric Vent Opening Test Backflow Prevention Test Leakage from Vent Ports Test Backsiphonage Test Materials Identification	ASSE 1019	Vacuum Breaker Wall Hydrants, Freeze Resistant, Automatic Draining Type	Vacuum tank, XRF analyzer, Life cycle tester, Flow meter, Pressure and temperature gauges
Flow Test Evaporation Test Trap Seal Interference Test Dirt and Debris Test Floor Wax Test Grease Test Life Cycle Testing  Physical Tests of Membrane Material Test (Subcontracted)	ASSE 1072	Barrier Type Floor Drains	Life cycle tester, Flow meter, Pressure and temperature gauges

This Scope of Accreditation, version 027, was last updated on: 10 September 2025 and is valid only when accompanied by the Certificate.

Page 3 of 11

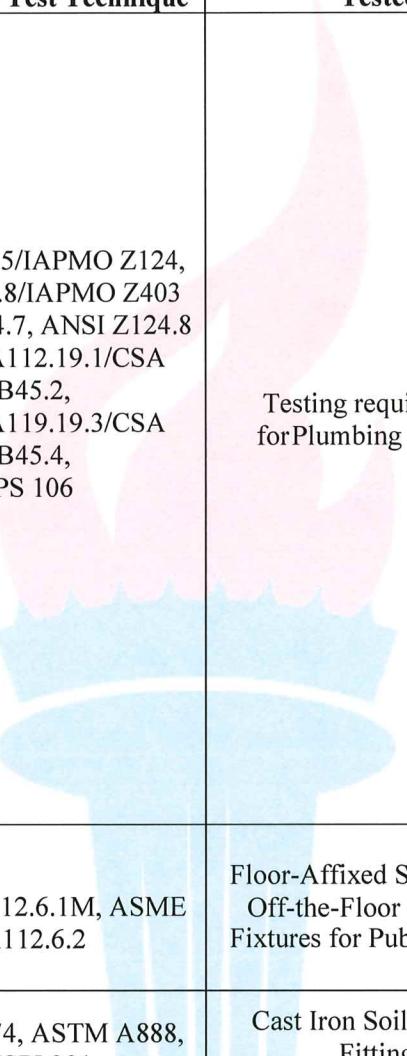
## Mechanical and Construction Materials

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Water Flow Passage, Discharge Capacity, CriticalLevel, Deterioration, Resistance to Detergents, Materials	ASSE 1021	Drain Air Gaps for Residential Dishwasher Applications	Vacuum tank, XRF analyzer, Life cycle tester, Flow meter, Pressure and temperature gauges
Pressure Test Air Tightness Test Rating Test Endurance Test Frost Closure Test Materials Identification	ASSE 1050, ASSE 1051	Stack Air Admittance Valves for Sanitary Drainage Systems	Life cycle tester, CO2 meter, Pressure and temperature gauges
Structural Integrity Test Physical Test Characteristics and Materials Tests	ANSI Z124.5	Plastic Toilet (Water Closet Seats)	Toilet seat tester, Corrosion chamber
Dimensional Measurements Load Test	ICC A117.1 Sections 604.4, 604.6, 605, 606, 607, 608 609 and 610	Buildings and Facilities Providing Accessibility and Usability for Physically Handicapped People	Dimensional Gauges, Force Gauge
Load Test Dimensional Measurements	ASTM F446	Grab Bars and Accessories Installed in Bathing Area	Dimensional Gauges, Force Gauge
Tensile Tests	ASTM C297/C297M	Flatwise Tensile Strength of Sandwich Construction	Universal Testing Machine
Impact Resistance Test	ASTM D2444	Determination of Impact Resistance Thermoplastic Pipe and Fittings by Means of a Tup (falling weight)	Impact Tester

## Mechanical and Construction Materials

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Toxicity Test Chemical Resistance Test Ring Tensile Test Hydrostatic Sustained Pressure Test Impact Resistance Test Dimensional Measurements Thread Check Test Resistance to Rapid Crack Propagation Test	CSA B137 (except Oxidative Resistance)	Thermoplastic Pressure Piping Compendium	Pressure and temperature gauges, XRF analyzer
Hydrostatic Pressure Test Back Siphonage Test Back Pressure Test Check Valve Sealing Pressure Test Flow Rate Test Corrosion Test Hot Water Deterioration Test Life Cycle Test Air Flow Test Thread Check Verification of Overflow Opening Test Critical Level Verification Test Tilt Test Resistance to Bending Test Backflow Preventer Attachment Requirement Test Water Hammer Test Reseating Tightness Test	CSA B64 Series (Sections 64.0, 6.3, 6.4, 6.5, 6.6, 6.7, 6.8, 6.9, 6.10 (except 6.11) ASSE 1001 sect. 3, ASSE 1098 sect. 3, ASSE 1011 sect. 3, ASSE 1012 sect. 3, ASSE 1014, sect. 3	Test Methods for Vacuum Breakers and Backflow Preventers	Vacuum tank, XRF analyzer, Life cycle tester, Flow meter, Pressure and temperature gauges

**Mechanical and Construction Materials**

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Flow Test Temperature Test Pressure Test Shear Test Load Test Adhesion Test Dimensional Measurements Color Fastness Stain Resistance Test Cleanability and Wear Test Ignition Test Cigarette Burn Test Chemical Resistance Test Thermal Shock Test Hot Water Resistance Test Pressure Seal Test Knife Drop Test Skillet Drop Test Vibration Test Heated Pan Test Hot Wax Test Bonding Test Water Absorption Test	CSA B45.5/IAPMO Z124, CSA B45.8/IAPMO Z403 ANSI Z124.7, ANSI Z124.8 ASME A112.19.1/CSA B45.2, ASME A119.19.3/CSA B45.4, PS 106	 Testing requirements for Plumbing Fixtures	Flow Meter, Pressure and Temperature Gauges, UV Chamber, Spectrophotometer, Abrasion Tester, Weight Scale
Materials Testing Coating Test Dimensional Measurements Pressure Test Load Test	ASME A112.6.1M, ASME A112.6.2	Floor-Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use	Dimensional Gauges, Scale, Pressure Gauge, XRF, Dial Gauge, Tensile Frame
Tensile Strength Test Dimensional Measurements	ASTM A74, ASTM A888, CISPI 301	Cast Iron Soil Pipe and Fittings	Universal Testing Machine

## Mechanical and Construction Materials

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Elevated Temperature and Pressure Test Cycle Test Critical Level Test Total Flow Test Refill Capacity Test Materials Identification Dimensional Measurements	CSA B125.3, ASSE 1002, ASSE 1037, ASME A112.19.5, ASME A112.19.10	Anti-siphon Fill and Flush Valves for Water Tanks	Vacuum tank, XRF analyzer, Life cycle tester, Flow meter, Pressure and temperature gauges
Mechanical Measurements Material Identification Impulse Test Burst Pressure Test Pressure Drop Test Coatings Test	ASME 112.18.6/CSA B125.6	Flexible Water Connector	Life cycle tester, Flow meter, Corrosion chamber, XRF analyzer, Pressure and temperature gauges
Hydrostatic Sustained Pressure Test Mechanical Separation Test Burst Test Bending Test Water Hammer Test Materials Analysis Static Torsion Test Vacuum Test Vibration Test Thermal Cycling Test Dynamic Torsion Test	ASSE 1061, IAPMO/ANSI/CAN Z1117, ASTMF1807, ASTM F877, ASTM F1974, ASTM F1960, ASTM D1598-2002, ASTM D2122	Fittings with Copper / PEX/CPVC Pipe	Hydrostatic Test Structural Integrity, Physical Characteristics and Materials Tests
Flow Rate Test Pressure Test Dimensional Measurements Time Test	ANSI Z358.1	Emergency Eyewash and Shower Equipment	Flow Rate Meter, Pressure Meter, Dimensional Measurements Equipment, Stopwatch
Hydrostatic Pressure Test	WMTS-105, Section 9.3	Beverage Dispensers and Icemakers	Pressure Gauges and Pumps

**Mechanical and Chemical – Filtered Water Analysis**

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Drinking Water System Components-Health Effects	NSF/ANSI/CAN 61	Drinking Water Treatment Systems and General Potable Water Plumbing	ICP/MS, GC/MS, XRF analyzer, pH meter
Drinking Water System Components – Lead Content	NSF/ANSI/CAN 372	Drinking Water Treatment Systems and General Potable Water Plumbing	XRF Analyzer
Drinking Water Treatment Units- Aesthetic Effects	NSF / ANSI 42 Excluding section 7.2	Drinking Water Treatment Systems	Pressure Gauge, Flow Meter, Spectrophotometer
Drinking Water Treatment Units- Health Effects	NSF / ANSI 53 Excluding Section 7.5	Drinking Water Treatment Systems	Flow Meter, Pressure Gauge, GC/MS, ICP/MS, pH Meter
Reverse Osmosis Drinking Water Treatment Systems	NSF/ ANSI 58	Drinking Water Treatment Systems	Flow Meter, Pressure Gauge, GC/MS, ICP/MS, pH Meter
Drinking Water Treatment Systems- Design and Performance	AS 3497 Sections 5.1, 5.2, 5.3, 5.4, 5.5, 5.6	Drinking Water Treatment Systems	Pressure Station
Swimming Pools Spas, Hot Tubs Recreational Water Facilities	NSF/ANSI/CAN 50 Excluding Sections: 14.20 and 15.18 (Reference Note 2)	Swimming Pool and SPA Equipment	Turbidity Meter, pH Meter, Spectrophotometer, Pressure Gauge, Flow Meter
Standard Safety Specification for Residential Pool Alarms	ASTM F2208	Swimming Pool Alarms	Swimming Pool, Rescue Timmy, Sound Meter, Air Flow meter
Drinking Water Treatment Systems	CAN/CSA B483.1	Drinking Water Treatment Systems	Pressure Station, Thread Gauge, Flow Meter
Scale Reduction Devices	IAPMO Z601	Scale Reduction Devices	Scale Rig, Pressure Gauge, Flow Meter, ICP/MS
Microbiological Water Purifiers	NSF P231 Excluding Section 4.3 (Reference Note 2)	Microbiological Water Purifiers	Pressure Station
Shower Filtration Systems- Aesthetic Effects	NSF/ANSI 177	Shower Filtration Systems- Aesthetic Effects	Pressure Gauge, Flow Meter, Spectrophotometer
Drinking Water Treatment Units - Supplemental Microbiological Water Treatment Systems - Filtration	NSF/ANSI 244 Excluding Section 7 (Reference Note 2)	Drinking Water Treatment Systems	Flow Meter, Pressure Station
Residential Cation Exchange Water Softeners	NSF/ANSI 44	Water Softeners	Pressure Station, Flow Meter
Ultraviolet Microbiological Water Treatment Systems	NSF/ANSI 55 Excluding Section 7 (Reference Note 2)	UV Systems	Pressure Station

This Scope of Accreditation, version 027, was last updated on: 10 September 2025 and is valid only when accompanied by the Certificate.

Page 8 of 11

**Mechanical and Chemical – Filtered Water Analysis**

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Drinking water treatment Chemicals-Health Effects	NSF/ANSI/CAN 60	Water Treatment Chemicals	ICP/MS, GC/MS, XRF analyzer, pH meter
Drinking Water Distillation Systems	NSF/ANSI 62	Distillation Systems	Pressure Station, Flow Meter, TDS Meter, GC/MS, ICP/MS
Backflow Preventer for Beverage Dispensing Equipment	ASSE 1022	Backflow Preventer for Beverage Dispensing Equipment	Vacuum Gauge, Pressure Gauge
Performance Requirements for Electrically Heated or Cooled Water Dispensers	ASSE 1023	Electrically Heated or Cooled Water Dispensers	Pressure Gauge, Flow Meter, Temperature Gauge
Performance Requirements for Reverse Osmosis Water Efficiency – Drinking Water	ASSE 1086	Reverse Osmosis Water Efficiency Drinking Water	Pressure Gauge, Flow Meter, TDS Meter
Commercial and Food Service Water Treatment Equipment Utilizing Drinking Water	ASSE 1087	Commercial and Food Service Water Treatment Equipment Utilizing Drinking Water	Pressure Station, Flow Meter
Drinking Water Atmospheric Water Generators	ASSE 1090	Drinking Water Atmospheric Water Generators	Environmental Chamber, Power Analyzer, Temperature Datalogger
Onsite residential and commercial water reuse treatment systems	NSF/ANSI 350 Excluding Microbiological Tests (Reference Note 2)	Onsite residential and commercial water reuse treatment systems	Pressure Gauge, Flow Meter, Turbidity Meter
Alternate Water Source Systems for Multi-Family, Residential, and Commercial Use	IAPMO IGC 324 Excluding Microbiological Tests (Reference Note 2)	Alternate Water Source Systems for Multi-Family, Residential, and Commercial Use	Pressure Gauge, Flow Meter, Turbidity Meter
Hydrostatic Pressure Test Endurance Test Burst Pressure Test	WMTS-103, Sections 9.2, 9.3, 9.4	Drinking Water Treatment Systems	Pressure Gauge, Temperature Gauge

**Building Products, Materials, and Assemblies Testing**

Items, Materials or Product Tested	Specification, Standard, Method, or Test Technique
Concrete, Mortar & AAC	ASTM C39, C67 (Freeze thaw only), C109, C140, C157, C190, C348, C482, C567, C947, C1354/1354M, C1660
EIFS & Stucco	ASTM B117, D2247, E2098, E2134, E2273, E2485, E2486, E331
Fabrics & Geotextiles	AAMA 711, AAMA 714, ASTM C794, D4533, D4632, D4869 (Liquid Water Transmission only), D5034, E96, E2556

### Building Products, Materials, and Assemblies Testing

Items, Materials or Product Tested	Specification, Standard, Method, or Test Technique
Fasteners	AISI S904, ASTM D1761, F1575
Joist Hangers	ASTM D7147
Gypsum Panels	ASTM C473, C1658
Insulation & Core Materials	ASTM C203, C271, C272, C273, C297, C303, C365, C393, C518, D2126, D3746
Lumber and Wood Products	ASTM D1037, D2395, D4442 (Methods A and B)
Paper & Paperboard	ASTM D779, D828, AATCC 127
Plastics	ASTM D412, D570, D618, D635, D638, D790, D882, D1621, D1622, D1623, D1970, D2794, D2842, D3330, D4226, D5420, G151, G154, G155
Miscellaneous Materials	ASTM D7091
Structural	ASTM D5206, E72 (Transverse Load), E73 (limited to maximum 12 ft. long truss), E330, E661, E1592
Waterproofing	ANSI A118.10 [except section 4.1], ASTM D751, D1204, D4068

### Building Products, Materials, and Assemblies Testing

Items, Materials or Product Tested	Specification, Standard, Method, or Test Technique
Industry Standards Testing Acceptance and Evaluation Criteria	<p><u>AC11 – Cementitious Exterior Wall Coatings, Section 4.0</u></p> <p><u>AC38 – Water Resistive Barriers</u> Section 3.0, except 3.5 Air Permeance, Section 4.0</p> <p><u>AC48 – Self-adhered Roof Underlayment</u> Section 4.0</p> <p><u>AC51 – Adhered Manufactured Stone Masonry Veneer</u> Section 3.0 &amp; Section 4.0, except Optional Fire Related Tests</p> <p><u>AC90 - Fiber Cement Siding Used As Exterior Wall Siding</u> Except Section 4.2 Racking Shear</p> <p><u>AC120 – Wood-Frame Horizontal Diaphragms, Vertical Shear Walls and Braced Walls with Alternative Fasteners</u> Section 4.3, 4.4, 4.5, 4.6, 4.9</p>

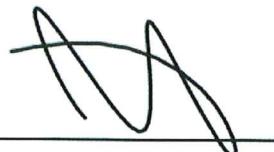


### Building Products, Materials, and Assemblies Testing

Items, Materials or Product Tested	Specification, Standard, Method, or Test Technique
Industry Standards Testing Acceptance and Evaluation Criteria	<u>AC188 – Roof Underlayment</u> Section 3.1, 3.2  <u>AC377 – Spray-Applied Foam Plastic Insulation</u> Section 3.1.6 and Table 1 [except E84]

Notes:

1. The microbiological analysis is performed by an ISO/IEC 17025 accredited laboratory. The data is analyzed, and reduction calculations are proved by IAPMO R&T LAB



Jason Stine, Vice President

