

ChaoLi Testing Laboratory Profile



TAF Accreditation Series No 1011
TAF Accredited Date : Feb 15, 2003



SINCE 1985

CHAOIL TECHNOLOGY CORPORATION

No.127, Sec. 1, Zhongshan W. Rd., Xinwu Dist., Taoyuan City, Taiwan

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About Us

CHAOLI TECHNOLOGY CORP.

Established in August 1985 in Xinzhuang District, New Taipei City, and now based in Xinwu District, Taoyuan, Chaoli Technology Corp has been committed to the research and development, and manufacturing a wide range of quality control equipment for building materials. Over the decades, we have accumulated experiences in manufacturing such quality control equipment used in as ceramics, pipe fittings, doors and windows, etc. We have been a widely-acclaimed partnership with nationwide customers and clients from abroad. The following are notable enterprises, vendors and clients in association with our testing services and products.

Ceramic Tile Testing Equipment

Champion Building Materials, HCG (Hocheng Corporation), White Horse Ceramics, Sanyo Tile, Taicera Enterprise Company, Horng Jou Cermics Co. Ltd., Alex Enterprise Co. Ltd., Roman Tiles Enterprise Co., and etc.

※ We gain nearly 95% market share of quality control instruments in the ceramic industry.

Pressure-resistance Testing Equipment for Tubing Products

Nan Ya Plastics Corp. (NPC), Ocean Plastics Co. Ltd., Jih Ching Plastics Ind. Co. Ltd., China General Plastics Corp. (CGPC), C.P. Pokphand Co. Ltd., Nien Made Enterprise, and etc.

Heat Resistance Test Equipment for Building Materials

Kingart Metal Industry Co., Ltd., Nan Ya Plastics Corp., Jinli Steel Door Metal Co. Ltd., Jinya Metal Co. Ltd., Tim De Steel Metal Co. Ltd., der Metal, Inchun Metal Company, Shuanglian Steel Doorsl Co. Ltd., Jinda Industrial, NYLU of Science and Technology, Mingdao University and etc.

Wind and Rain Test Equipment for Building Materials

Chi Jou Aluminum Co. Ltd., YKK Taiwan Co. Ltd., TKK Sangu Aluminum Co.Ltd., Sankyo Ta Tung Aluminum Co. Ltd, Tayuan Aluminum Co. Ltd, Shanren Industrial, China Rebar Co., Yuangee Industrial Co. Ltd., Crownal Aluminum Co. Ltd., Zhengxin Aluminum, YTS Technology, Formosa Shin Yuan Aluminum Co. Ltd., Nan Ya Plastics Corp., Gaoqing Industrial, Gaofeng Aluminum, Qixiang Aluminum, SENSYLE Aluminum, Shinwu Rimou Aluminum co. Ltd., Chyun Sheng Ind. Co. Ltd., Yuh Toong Aluminum Co. Ltd., Alformer Industrial Co. Ltd., Yuan Tong Enterprise, Goang Hann Enterprise Co. Ltd., White Peak Enterprise Co. Ltd., Chin Hong Enterprise Co. Ltd., Yingte Metal...and etc.

Profile

Chali Testing Laboratory

It was in 1984 that Chaoli started to aim at the accreditation of Wind and Rain Test Laboratory by CNLA (TAF, former entity). Through years of testing experiences and endeavors, Chaoli was solely accredited in Taiwan in 2003 (CNLA-0824 Testing Laboratory) in civil engineering field.

The implementation of the TAF certification system, along with the accredited laboratory with accurate test equipment, professional test engineers and standard test procedures to perform various tests in accordance with the certification specifications, culminates in affirmation of efforts from manufacturers' research and development, and ensures safety of users.

Certificate of Accreditation

Quality Policy

Integrity Quality Confidentiality Profession

Originally Accredited : December 15, 2003

(The first TAF accredited Wind and Rain Test Laboratory in Taiwan)

Accreditation Code

Taiwan Accreditation Foundation TAF No. 1011 (formerly CNLA)

Laboratory Address

No.127, Section 1, Zhongshan West Road, 327 Xinwu District, Taoyuan City

Laboratory TAF Accreditation Certificate

Scope of Accreditation: Civil Engineering Testing Field

Effective Period: February 15, 2024 to February 14, 2027


財團法人全國認證基金會
 Taiwan Accreditation Foundation
Certificate of Accreditation
 (Certificate No : L1011-250303)

This is to certify that

Chaoli Technology Corporation
Chaoli Testing Laboratory
 No 127, Sec. 1, Zhongshan W. Rd., Xinwu Dist., Taoyuan City 327, Taiwan (R.O.C.)

is accredited in respect of laboratory

Accreditation Criteria : ISO/IEC 17025:2017 ; CNS 17025:2018
 Accreditation Number : 1011
 Originally Accredited : February 15, 2003
 Effective Period : February 15, 2024 to February 14, 2027
 Accredited Scope : Civil Engineering Testing Field, see described in the Appendix


 Yi-Ling Chen
 President, Taiwan Accreditation Foundation
 March 03, 2025

PL, total 7 pages
 The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix.

Certificate No : L1011-250303

Accreditation Number : 1011
 Laboratory Head : HUANG, Lun-Ti

§ 30.35 Civil Engineering
Curtain Wall
 L541 The Thermal Cycling Testing
 AAMA 501.3
 Maximum set temp.: 60.0 °C
 Minimum set temp.: 0.0 °C
 Temperature control equipment size W1570 x H1250 mm
 Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.560 Test for Attack Resistance Performance
 CWCT TN76
 BS EN 14019
 Excluding third body impact test
 Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.760 Air Leakage Under Specified Pressure Differences
 ASTM E838
 The Max. air leakage:138.89 L/s
 The Min. air leakage:0.03 L/s
 Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.760 Air Permeability Performance
 CNS 13971
 The Max. air leakage:500 m³/h
 The Min. air leakage:0.1 m³/h
 Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.761 Structural Performance by Uniform Static Air Pressure Difference
 ASTM E838
 The Max. wind pressure is ± 20000 Pa, and the Min. is ± 1 Pa
 The Max. flexure is 200 mm, and the Min. is 0.1 mm

P2, total 7 pages
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Certificate No : L1011-250303

Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.761 Deformation Under Wind Pressure
 CNS 13972
 The Max. wind pressure is ± 20000 Pa, and the Min. is ± 1 Pa
 The Max. flexure is 200 mm, and the Min. is 0.1 mm
 Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.762 Water Penetration by Rapid Pulsed Air Pressure Difference
 ASTM E831
 ASTM E597
 ASTM E2268
 The Max. Water Spraying is 600 L/min, and Min. is 8 L/min
 Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.762 Water Penetration Performance
 CNS 13974
 The Max. Water Spraying is 600 L/min, and Min. is 8 L/min
 Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

§ 30.35 Civil Engineering
Windows and Doors
 L545 Dimension
 CNS 3092 Sec. 7
 CNS 6400 Sec. 9
 CNS 7184 Sec. 7
 CNS 7477 Sec. 7
 CNS 12430 Sec. 7
 On-site testing included
 Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.764 Wind Resistance
 CNS 11526
 The Max. wind pressure is ± 20000 Pa, and the Min. is ± 1 Pa
 The Max. flexure is 200 mm, and the Min. is 0.1 mm

P3, total 7 pages
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Certificate No : L1011-250303

Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.765 Test for Edge Member Strength
 CNS 3092 Sec. 9.7
 CNS 6400 Sec. 11.7
 CNS 7184 Sec. 9.9
 CNS 7477 Sec. 9.9
 CNS 12430 Sec. 9.5
 On-site testing included
 The Max. flexure is 100 mm, and the Min. is 0.1 mm.
 Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.769 Test for Opening Force
 CNS 3092 Sec. 9.6
 CNS 6400 Sec. 11.6
 CNS 7184 Sec. 9.7
 CNS 7477 Sec. 9.7
 CNS 12430 Sec. 9.4
 On-site testing included
 Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

§ 30.35 Civil Engineering
Steel Doors, Aluminum Doors
 1.560 Test for Durability to Impact
 CNS 7184 Sec. 9.8
 CNS 7477 Sec. 9.8
 Bag mass : 30 kg
 Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

§ 30.35 Civil Engineering
Doors, Windows, Curtain Wall
 1.760 Field Air Infiltration Test
 ASTM E783 (Exclude Sec. 9.1)
 The Max. air leakage: 0.0776 m³/s
 The Min. air leakage: 0.0003 m³/s
 Approval Signatory:HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

P4, total 7 pages
 The Appendix forms an integral part of this Certificate, which shall be invalid when use without the Appendix.

Certificate No. TAF1011-250303

1.762 Water Penetration Performance (Dynamic Pressure)
AAMA 501.1
 (0 to 600) L/min
 Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.762 Field Water Penetration Performance
AAMA 501.2 (Exclude Sec. 6.5)
ASTM D1105
 (0 to 30) L/min
 (0 to 35) psi
 Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.762 Water Penetration Performance (Dynamic Pressure)
CNS 13973
 (0 to 600) L/min
 Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.763 Displacements Associated with Seismic Movements and Building Sway
CNS 14281
 (-120 to 120) mm
 Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

■ 30.35 Civil Engineering
Windows and Doors
1.760 Air Permeability
CNS 11527
 The Max. air leakage: 500 m³/h
 The Min. air leakage: 0.1 m³/h
 Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.762 Water Penetration Performance
CNS 11528
 The Max. water spraying is 600 L/min, and Min. is 8 L/min

P5, total 7 pages
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Certificate No. TAF1011-250303

Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

1.999 Coating/Film Thickness
CNS 8406-2
CNS 15206-1-7 Sec. 5.5.7
 On-site testing included
 (11.4 to 992) μm
 Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

■ 30.35 Civil Engineering
Door, Window & Curtain Wall
1.761 Test for Structure by Cyclic Pressure
ASTM E1233/E1233M Sec 11.3, Appendices X1.1
 The Max. wind pressure: ± 20000 Pa, The Min. wind pressure: ± 1 Pa
 The Max. deflection: 100 mm, The Min. deflection: 0.1 mm
 Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

■ 30.35 Civil Engineering
Curtain Wall and Subjected
1.763 Displacements Associated with Seismic Movements and Building Sway
AAMA 501.4
 (-120 to 120) mm
 Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

■ 30.35 Civil Engineering
Windows, Window Wall, Curtain Wall and Storefront Systems
1.762 Vertical Joint-Move-Movements
AAMA 501.7
 (-20 to 20) mm
 Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

■ 30.35 Civil Engineering
Shaver for Sliding Doors and Windows
1.768 Sliding Test
CNS 12431 Sec. 7.1.1
 The Max. record of cycles is 999999 times.

P6, total 7 pages
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Certificate No. TAF1011-250303

Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

■ 30.35 Civil Engineering
Doors, Windows
1.770 Opening and Closing Reciprocating Test
AAMA 510 Sec. 6.2
 The Max. Record of Cycles is 999999 times.
 Specimen Dimension W600 x H600mm to W2500 x H2500mm
 Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

■ 30.35 Civil Engineering
Curtain Wall
1.999 Stabilization Anchor Load Testing
AS/NZS 4284 Sec. 8.7
 Max. pulling force: 500 kgf
 Approval Signatory: HE, Dong-You; LI, Zheng-Xian; ZHANG, Shu-Jin; HUANG, Lun-Ti; CHUNG, Cheng-Yu

(Null below)

P7, total 7 pages
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Certification Items

Standard	Test Items	Remark
CNS 11527 Air Infiltration Class No : A3236	Methods for Air Infiltration of Windows and Doors	Max.500m ³ /h Min.0.1m ³ /h
CNS 13971 Air Infiltration Class No: A3366	Methods for Air Infiltration of Curtain Walls, Windows and Doors, and Skylight	Max.500m ³ /h Min. 0.1m ³ /h
ASTM E283 Air Infiltration	Methods for Air Infiltration of Curtain Walls	Max.138.89 L/s Min. 0.03 L/s
AAMA E783 (Sec. 9.1 excl.)	Field Air Infiltration Test	Max.0.0770m ³ /s Min.0.0003m ³ /s
CNS 11528 Water Penetration Class No: A3237	Methods for Water Penetration of Windows and Doors	Max.600L/min Min.0.1L/min
CNS 13973 Water Penetration Class No: A3368	Methods for Dynamic Water Penetration	0 to 600L/min
CNS 13974 Water Penetration Class No: A3369	Methods for Water Penetration of Curtain Walls, Windows and Doors and Skylights	Max.600L/min Min .0.1L/min
ASTM E331 Water Penetration ASTM E547 ASTM E2268	Methods for Water Penetration of Curtain Walls	Max.600L/min Min .0.1L/min
AAMA 501.1 Water Penetration	Methods for Water Penetration (Dynamic Pressure)	0 to 600L/min
AAMA 501.2 (Sec. 6.5 excl.) ASTM E1105	Field Water Penetration Performance Test	0 to 30L/min 30 to 35psi
CNS 11526 Structure Performance Class No:A3235	Methods for Wind Resistance of Windows and Doors	Pressure : Max.±20000Pa Min.±1Pa Deflection: Max.200 mm Min.0.1 mm

Standard	Test Items	Remark
CNS 13972 Positive and Negative Wind Pressure Class No: A3367	Methods for Structural Performance of Curtain Walls, Windows and Doors, and Skylights by Positive and Negative Pressure	Pressure : Max.±20000Pa Min.±1Pa Deflection: Max.200 mm Min.0.1 mm
ASTM E330 Positive and Negative Wind Pressure	Method for Structural Performance of Curtain Walls by Positive and Negative Pressure	Pressure : Max.±20000Pa Min.±1Pa Deflection: Max.200 mm Min.0.1 mm
CNS 14281 Class No: A3381	Interstory Displacement Performance Test	-120 to 120 mm
AAMA 501.4	Interstory Displacement Performance Test	-120 to 20 mm
AAMA 501.7	Vertical Interstory Displacement Performance Test	-20 to 20 mm
CNS 12431 Sec. 7.1.1 Class No: A2231	Sliding and Durability Test for Sheaves of Sliding Doors and Windows	999999 times
Windows and Doors CNS 3092 Section 7 CNS 6400 Section 9 CNS 7184 Section 7 CNS 7477 Section 7 CNS 12430 Section 7 (On-site testing included)	Aluminum Alloy Windows PVC Plastic Windows Steel Doors Aluminum Alloy Doors Steel Windows	
Edge Member Strength CNS 3092 Section 9.7 CNS 6400 Section 11.7 CNS 7184 Section 9.9 CNS 7477 Section 9.9 CNS 12430 Section 9.5 (On-site testing included)	Test for Edge Member Strength of Aluminum Alloy Windows PVC Plastic Windows Steel Doors Aluminum Alloy Doors Steel Windows	Deflection : Max.100 mm Min.0.1 mm

Standard	Test Items	Remark
Opening Force CNS 3092 Section 9.6 CNS 6400 Section 11.6 CNS 7184 Section 9.7 CNS 7477 Section 9.7 CNS 12430 Section 9.4 (On-site testing included)	Opening Force Test of Aluminum Alloy Windows PVC Plastic Windows Steel Doors Aluminum Alloy Doors Steel Windows	5 kg
Coating and Film Thickness Test CNS 8406-2 CNS 15200-1-7 Sec. 5.5.7 (On-site testing included)	Methods for Thickness Test of Anodic Oxide Film on Aluminum and Aluminum Alloy-Part 2 Methods for Coatings-Part 1-7 General Rules-Determination of Film Thickness Section 5.5.7 Eddy Current Test Method	11.4 to 992 um
Impact Resistance Performance Test CNS 7184 Section 9.8 CNS 7477 Section 9.8	Test for Impact Resistance Performance of Steel Doors and Aluminum Alloy Doors	Sand Pocket Weight:30 kg
The Thermal Cycling Testing AAMA 501.5	Test Method for Thermal Cycling of Exterior Walls.	0℃ to 60℃
Stabilization Anchor Load Testing AS/NZS 4284 Sec. 8.7	Building Maintenance Unit Restraint Test	500 kgf
Test for Structure by Cyclic Pressure ASTM E1233/E1233M Sec. 11.3, Appendixes X1.1	Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Cyclic Air Pressure Differential	Pressure : Max.±20000Pa Min.±1Pa Deflection: Max.100 mm Min.0.1 mm
Opening and Closing Reciprocating Test AAMA 910 Sec. 6.2	Voluntary Life Cycle Specifications and Test Methods for AW Class Architectural Windows and Doors	999999 times

Exterior Appearance of Pressure Chamber

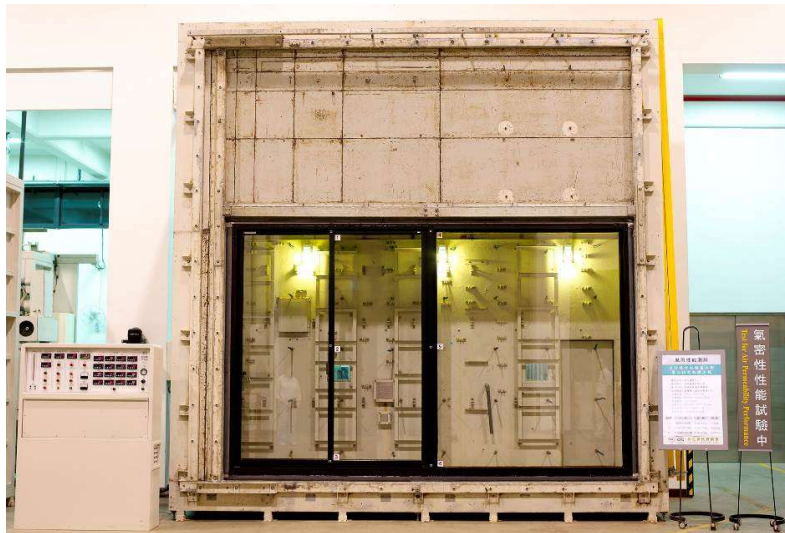
CT-324 M Test Size: W2200 mm × H 2200 mm Max Pressure 7000 Pa



CT-330 Test Size : W300 mm × H3000 mm Max Pressure 9000 Pa



CT-345 M Test Size: W2500 mm/4460 mm × H4460 mm Max Pressure 10000 Pa



CT-309M Test for Durability of Windows and Doors Size: within W2500mm× H2500mm
Test method: Durability test of left and right horizontal pull, front and rear push and pull, and up and down push and pull



CT-340 Horizontal Chamber

Test Size : Positioned as specified Max Pressure 20000 Pa



CT-370 CA Curtain Wall Chamber Test Size :

W7000 mm × H13500 mm Max Pressure 20000 Pa



CT-370 CB Curtain Wall Chamber Test Size :

W 7m × H 12m Max Pressure 20000 Pa (Designable Size)



CT-310C Curtain Wall Chamber Test Size :

W 10 m × H 10m Max Pressure 20000 Pa (Designable Size)



Site Map of Chaoli Testing Laboratory

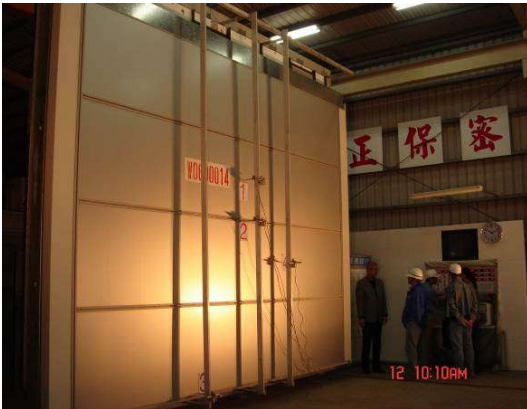
Address: No. 127, Section 1, Zhongshan West Road, 327 Xinwu District, Taoyuan City (Pls refer to Zhaoli website for the electronic map)

Tel: 03-4777448, 0937-849038

Geographic coordinates: N-24' 58.467' E-121' 5.593"

Photos of Specimens and Tests in Progress

Aluminum Wall



Small Scale Curtain Wall



Stainless Steel Fixed Window



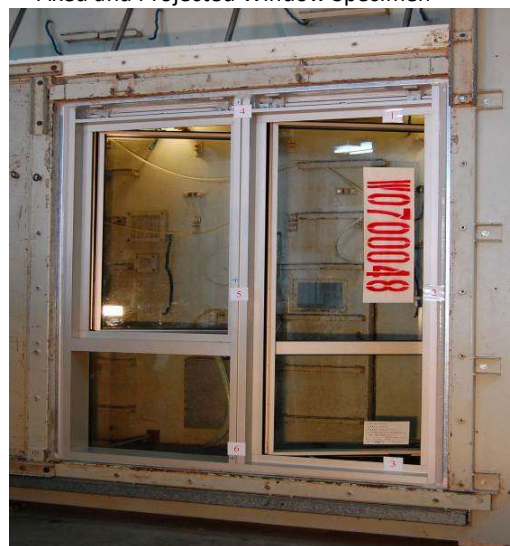
Negative Pressure Performance Test for Platform Door



Positive Pressure Performance Test for Aluminum Alloy Rolling Shutter Door



Fixed and Projected Window Specimen



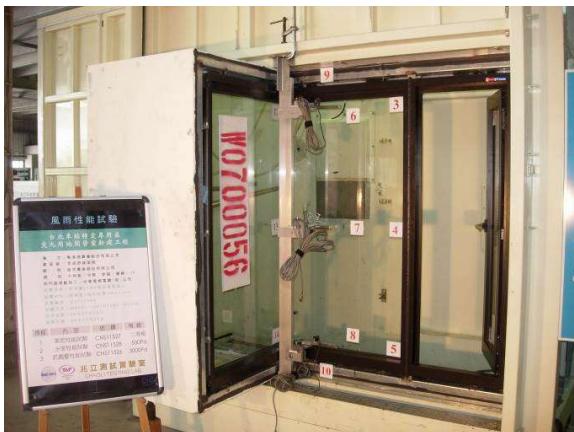
Air, Water and Pressure Test for Four-pull Sliding Door



Positive Pressure Performance Test for Aluminum Alloy Rolling Shutter Door



Air, Water and Pressure Test for Corner Window



Negative and Positive Pressure Performance Test for Sliding Window



Air, Water and Pressure Test for Bottom Fixed Door and Upper Horizontal Sliding Window



Air Infiltration Test for Platform



Forensic Debate of Joint Inspection at the end of single stage test



Retention Performance Test for Platform Door



Inspections of the Specimen by Joint Inspectors prior to the test



PVC safety shield used in Positive Pressure Performance Test



Layout of the Test Pressure Chamber



Installation of Prototype Platform Screen Door



Confirmation of Open and Close



Positive Pressure Performance
for Platform Scree Door in Progress



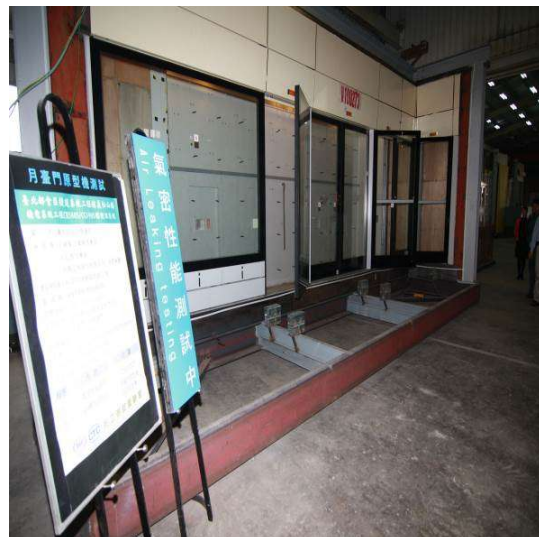
Endurability and Million Cycle Test
for Platform Screen Door



Retention Performance Test for
Platform Screen Door in Progress



Open and Close Confirmation prior to
Air Infiltration Test



Film Thickness Measurement



Abrasion Determination of Roof Panel



Sliding Determination of Metal Panel



Pull Force Test for Fastener of Window Cleaner



Large Scale Aluminum Wall Curtain Test



Horizontal Test for Roof Clad Sheet Metal



Curtain Wall Corner Specimen

Floor to Ceiling Partition Wall Specimen



Positive and Negative Pressure Performance Test for 18 m Metal Roof Panel



Metal Wall Panel Specimen



Three-dimensional Shaped Curtain Wall



Layout of Chambers CT-310C 、CT-370CA 、CT-370CB in shape



Installation in Progress at Chamber CT-310C

Dynamic Water Infiltration Test for Curtain Wall at Chamber CT-310C



Installation of Curtain Wall Specimen at CT-



Test Completion of Curtain Wall Corner at CT-

310C



Completed Installation of Curtain Wall Corner at CT-370CB

370CB



Dynamic Water Penetration Test for Curtain Wall Corner at CT-370CB



Side View of Curtain Wall Corner at CT-390C



Front View of Curtain Wall Corner at CT-390C



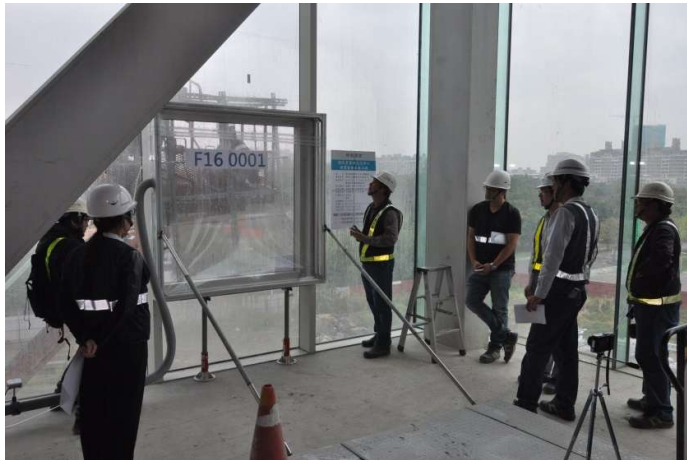
Specimen of 25 m Corner Window at CT-310C



Field Water Penetration Test to AAMA 502, measurement of specimen prior to test



Field Water Penetration Test to AAMA 502 in progress



Field Water Penetration Test to AAMA 502 Report on Test Completion



Interstory Displacement Test for Marble Curtain Wall at CT-310C



Interstory Displacement Test for Prefabricated Panel in Progress at CT-310C PC



Planting Layout prior to Dynamic Water Penetration Test at CT-380C



Dynamic Water Penetration Test with Plant in Progress at CT-380C



Field Air Infiltration Test in Progress



Open and Close Confirmation in Progress after Field Air Infiltration Test



Field Water Penetration In Progress

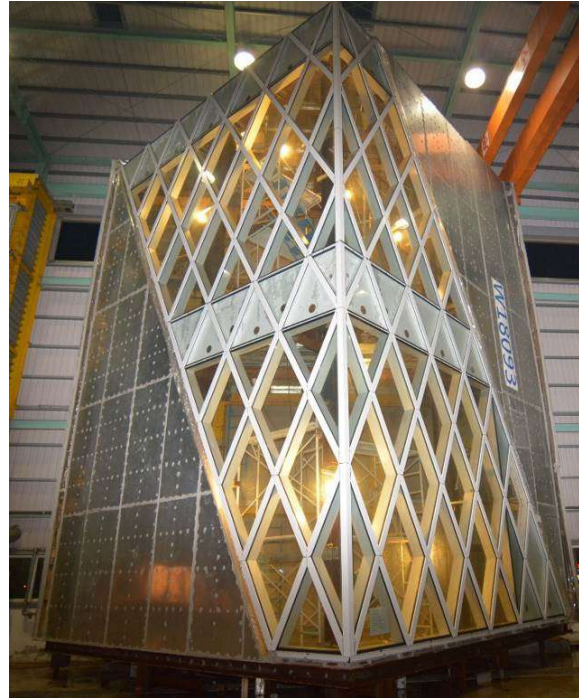
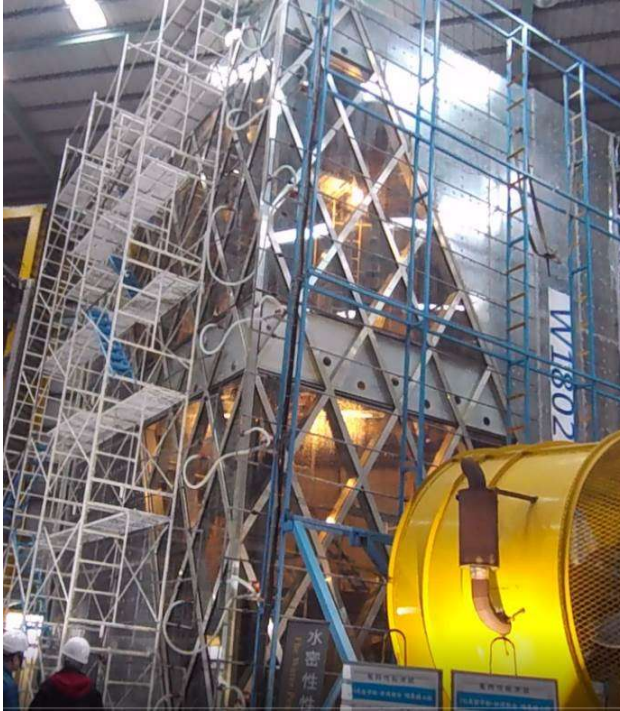


Air Infiltration Test in Progress



A wide range of views and photo of Curtain Wall Test

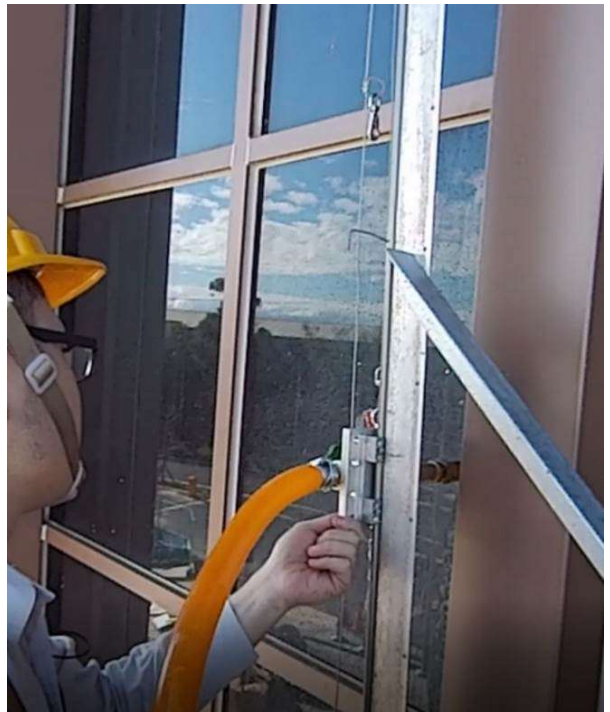












Wind and Rain Test Chamber for Windows and Doors

Model	Specimen Size	Qty	Capacities
CT-318M	<W1800 × H1800(mm)	1	Max. Pressure : ±6000Pa / 1Pa
CT-324M	<W2400 × H2400(mm)	3	Max. Pressure : ±7000Pa / 1Pa
CT-325M	<W2500 × H2500(mm)	2	Max. Pressure : ±7000Pa / 1Pa
CT-330M	<W3000 × H3000(mm)	2	Max. Pressure : ±9000Pa / 1Pa
CT-345M	<W4460 × H4460(mm)	1	Max. Pressure : ±10000Pa / 1Pa
CT-3735M	<W7000 × H3500(mm)	1	Max. Pressure : ±10000Pa / 1Pa
CT-309M	<W2500 × H2500(mm)	5	Durability Test 999999 times

※ Extraordinary sizes can be temporarily extended as requested.

Applicability of Test Specimens

Casement Windows	Projected Windows	Horizontal Sliding Windows
Fixed Windows	Airtight Windows	Storm Doors
Anti-blast Doors	Roller Shutter Doors	Glass Curtain Wall
Precast Plate/Wall	Corner Windows	Octagon Windows
Architectural Windows/ Walls	Unitized Curtain	Platform Doors
Arc Curtain Wall	Solar Panel	Sound-absorbing Doors

The fabrication material is not limited to the items listed above for such tests as Structural Performance, Air Infiltration, Water Penetration, Impact Resistance Performance, Opening Force and Durability.

Accreditation Criteria

- TAF LOGO report issued in the certification project
- Accept non-clear but completely compliable specifications, make exclusive fixtures to perform specified tests, and issue reports without TAF LOGO

Wind and Rain Test Chamber for Curtain Wall

Type	Size	Type	Size
CT-340C	Horizontal Chamber	CT-380C	W 8 m * H 12.5 m
CT-370CA	W 7 m * H 14 m	CT-390C	W 9 m * H 12.5 m
CT-370CB	W 7 m * H 12.5 m	CT-310C	W 10 m * H 10.6 m
CT-350C	W 5 m * H 12.5 m		

Supports Provided for Constructions of Curtain Walls

1. The length of chamber occupied is within 30 days (including test day and holidays)
2. Lunch served (in dining room 201), dinner (bento) for workers during the construction period
3. Crane/3T, Stacker, 7M Aerial Working Platform Truck (available for use in rotation), operation scaffold
4. Electric welding machine/160A, shearing machine within 4.5T, and drilling press (not available)
5. No additional charge for purchasing services during the on-site purchase

Equipment Capacities of Wind and Rain Test for Curtain Walls**Master Tester**

Capacity: Max. Wind Pressure : $\pm 20000\text{Pa}$ ($\pm 1\text{Pa}$)

Max Water Spraying : 600L/min (0.1L/min)

Max Deflection : $\pm 100\text{mm}$ ($\pm 0.1\text{mm}$)

(80 displacement meters of computerized records)

Test Methods: Air Infiltration Performance, Water Penetration Performance (Constant Pressure), Water Penetration Performance (Pulse Pressure), Structure Performance by Positive /Negative Pressure

Aircraft Propeller CT-F-3A

Capacity: Max. Wind Pressure 750Pa

Blade : Diameter $120''$, 3-blade composite propeller”

Ground clearance: 2500mm from pivot engine

Placement : 4400mm away from the specimen while testing in progress

Test Methods: Dynamic Water Penetration Test

Aircraft Propeller CT-F-3B

Capacity: Maximum wind pressure 1000Pa

Blade: Diameter $132''$, variable angle metal propeller

Ground clearance: 3000mm from pivot engine

Placement: 5800mm away from the specimen while testing in progress

Hydraulic Cylinder

Capacity: Max. stroke of hydraulic cylinder 168mm (Executable $-75\sim 75\text{mm}$)

Max. thrust force of hydraulic cylinder 933kN

Max. tensile force of hydraulic cylinder 435kN

Test Methods: Static Interstory Displacement

Laboratory Concord

We appreciate being entrusted with your testing. The applicant (contractor) is advised to take heed of the followings to help facilitate the task completion as expected.

1. Lab opens on workdays :

Workshop 1 for Wind and Rain Test 08:00 am---17:00 pm

Workshop 2 for Curtain Wall Test 08:00 am---20:30 pm (noticed in advance only on holidays)

2. Any individual is prohibited from entering Workshop 2 without wearing helmets.

3. Kindly inform our staff of the number of persons having meals in advance.

Lunch: Confirm before 11 am and proceed to Room 201 at 12 pm.

Dinner: Confirm before 4 pm that very day and bento will be served on-site.

※ No meals served on non-working days.

4. 9-seater van (max. 8 paxs) for pick-up and drop-off service between HSR Qingpu Station and Chaoli Testing Lab is provided. Reservation should be made in advance.

5. Please be mindful of the noise during constructions after 8 pm at night for fear of disturbing the neighborhood

6. Kindly inform our clerk of borrowing tools and please do not take them away without our knowledge. Make sure they are in good condition when returned. Expenses will be incurred if damage results.

7. The gantry must not be overloaded while operated vertically. Any individual is obligated to the expenses of repair due to improper use.

8. Do not disassemble the scaffold parts for convenience sake. In case damage cannot be restored, the compensation shall be added to the expense.

9. The laboratory takes full responsibility for confidentiality and intellectual property right of any entrusted items. Any irrelevant individual is banned from visiting and photographing without permission.

10. At Workshop 2, a contact person is readily on-site in charge of daily activities and facilitating communication during the operation. A pager is provided for convenience sake and to be returned after use.

11. Help us with the recycling of trash. Other waste as plastic film, silicone tubes and the like should be disposed properly on your own.