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Building excellence every day

At ALUMIL we are building excellence every day. Through our modern production facilities and strict quality controls along the entire production line, we ensure the creation of superior products of high added value. With more than 30 years of experience and 2.200 employees, we are one of the most advanced companies globally in the design and production of aluminium profiles and architectural aluminium systems, owning state-of-the art production plants in our 12 factories in Europe.

Our extensive network of subsidiaries across the globe, the large number of our privately owned factories and our multiple distribution centers ensure efficient service internationally.

- / Presence in over 60 countries in all continents
- 32 Subsidiaries worldwide
- 12 factories in 6 countries: Greece, Bulgaria, Romania, Albania, Serbia, Bosnia & Herzegovina
- / 10.000 partners worldwide
- Strong Engineering (Greece, America, Romania, Serbia, Dubai, India)

Company Profile



Production capacities & capabilities

Production capacities

100.000 tons of aluminium extrusion 75.000 tons of powder coating 80.000 tons of billets

22.000 tons of anodized aluminium 30.500 tons of thermally insulated profiles 950.000 m² aluminium composite panels

2.000.000 m² polycarbonate sheets 10.000.000 m polyamide profiles

Capable of everything

Last but not least, in ALUMIL's industrial sites are operating:

- / Multiple CNC lines, bending machines, cutting saws, drilling machines
- / Accessories assembling lines
- / Automated packaging lines
- / Polyamide & PVC extrusion lines
- / Solar truss assembly line
- / Polishing machines & sand blast lines
- / Sound wall machines

Production Plants

We love what we do and that is why we want to be excellent in every aspect of it. As of today, ALUMIL has 12 factories in 6 countries.

To get an idea of our immense vertical integration consider that our industrial facilities include:

- aluminium extrusion lines
- powder coating lines (7 horizontal+1 vertical)
- sublimation lines (wood & special effect colors)
- anodizing plants 3
- foundry for aluminium billet production
- thermal break assembly lines
- manufacturing plants for production, processing and assembling of accessories
- production site for various prefabricated interior & entrance doors, through the business unit of INTERNO Doors
- manufacturing plant for roll-formed aluminium-foam filled profiles
- production site for automated systems and elevators with METRON, an autonomous subsidiary specialized in automation
- manufacturing plant for aluminum composite panels
- manufacturing plant for polycarbonate sheets

Everything from one hand, in exceptional quality



ALUMIL has a large range of highly performant unitised façade systems that have been developed to meet specific requirements for high-rise buildings in terms of installation costs and high specifications.

ALUMIL has created custom made unitised systems that have specifically and successfully met the requirements of significant challenging projects with modern architecture.

Our team of engineers have followed a holistic approach, seeking to balance the different aspects of the building envelope and finding the best combination in order to achieve the highest performance characteristics.

Alumil Unitised Systems



- >SMARTIA M65
- >SMARTIA M75
- SMARTIA M85 s



158 Madison Avenue, Manhattan New York, USA

Projects Realised with Alumil Unitised Systems



Star Tower 27-17 42nd Road Long Island City New York, USA

515 West, 36th Street Manhattan's Midtown West New York, USA





A unitised façade is a curtain wall system especially engineered for high-rise buildings. The construction of the building's envelope is done by assembling pre-fabricated units consisted of many frames, either structural or with visible aluminium covers.

The units may contain glass, infill panels as well as operable parts. Every unit can be freely designed by the architect, whilst the system guarantees low cost of installation, extreme strength and stability, as well as easy and secure application.

Benefits of Unitised Facades



High on-site productivity

Unitised System modules are completely fabricated and glazed according to highest quality standards at the factory. Even the gaskets infill panels are placed in advance.

This means practically that they ensure a drastic reduction of the installation time with 5 to 7 minutes per "module" and moreover, they allow working at the project site regardless of the weather conditions.

Low cost of installation

Unitised Façades ensure extremely high productivity due to limited manpower requirements and reduced onsite installation costs. Moreover, the fast floor by floor construction allows for parallel finishing works inside the building, thus shortening the overall construction schedules.

Secure installation

The installation is carried out with platforms or a crane and light site elevators, no scaffolding being necessary. The different units can be mounted easily onto the main structure and fixed securely with specially designed adjustable support devices.



Tested and certified systems

ALUMIL unitized façade systems are tested and certified by different notified bodies for their conformity according to the European and American standards.

Compatible with all ALUMIL window systems

The system may be individually adapted to the specific needs of the project and its standard components are compatible with all Alumil window systems.

Freedom of design

ALUMIL unitised façades provide the possibility for architects to combine different solutions, emphasizing the uniqueness of any project. A wide range of different materials can be used, such as glass, composite materials or marble. Moreover, there is an option for polygonal constructions in plan-angle up to 4° .

Security

The system has been designed by means of specialized software for maximum security according to the Eurocode 9 (EN 1999-1-1) and the applicable European Norm.

Resistance to weather conditions

Alumil unitised systems guarantees a high level of water tightness with three levels of controlled drainage of condensed water and rainwater. The modules are engineered to correspond with the highest requirements for wind load resistance, so as to provide maximum resistance in static and dynamic pressure as well.

Advantages of Alumil Unitised Systems



Sun protection & ventilation

Our modules are engineered to provide natural capabilities for ventilation, e.g. by outward as well as parallel projected windows. Unitised Systems are compatible with all hinged Alumil systems, such as SMARTIA S67 system.

Additionally, aluminium louvers system can be optionally installed at the exterior, in order to operate the light transmission and protect against the sun radiation.

High energy efficiency

The systems are designed and developed so as to achieve overall low U values, using the advantages of triple glazing and their excellent properties.

Installation

- Easy suspension of the module with an aluminium suspension support, mounted on the panel and serving as the link between the panels. Possibility of regulation (vertically \pm 20 mm and horizontally \pm 35 mm).
- The unit support is made of massive Aluminium and is mounted on the reinforced concrete plate. So the simplicity of the support gives you the ability to absorb the deviations in the concrete slab, in all directions.

Static & Dynamic Test

ALUMIL unitised façade systems are certified for wind pressure of up to 2,0 KN/m² for static and 3,0 KN/m² for dynamic pressure respectively.

Fast installation

Approx 10 m² installed in less than 12 min



- >SMARTIA M65
- >SMARTIA M75
- >SMARTIA M85 s

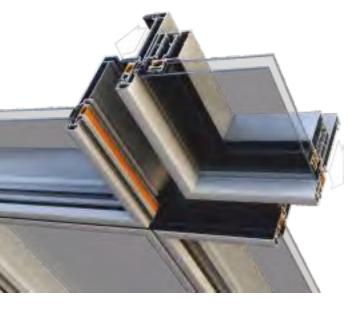
Our Solutions



ALUMIL unitised façade systems are engineered to:

- / improve the cost, the quality and the safety of the finished product
- / minimize significantly the installation costs and on-site labour time
- / ensure freedom of design and create unique buildings by offering a large variety of architectural alternatives





SMARTIA M65 is a unitized curtain wall system ideal for high-rise buildings, which provides freedom in architectural design. The construction of the building's envelope is done by assembling big panels consisted of many glass frames, either structural or with visible aluminium covers. Every unit can be freely designed by the architect, whilst the system guarantees easy and secure application.

- 65mm basic system width
- Easy replacement of broken glasses
- Various hinged window types can be applied: parallel projected, top hung, all Tilt & Turn windows of SMARTIA systems
- Certified system performance by the IFT Rosenheim & AAMA institutes

Types of vent

Fixed, Top hung window, Parallel projected window, Inwards hinged window.

Exterior aesthetics

Visible aluminium frame: 28,5 mm Distance between frames: 8 mm





TECHNICAL CHARACTERISTICS

Exterior visible width	65 mm
Mullion depth	176 mm
Transom depth	176 mm
Glazing	Unitized type with EPDM gaskets
Glass thickness	32 mm
Mullions max inertia	$I_x = 320 I_y = 9 \text{ cm}^4$
Transoms max inertia	$I_x = 485 I_y = 80 cm^4$
Max dimensions WxH	1500 x 3750 cm

Certified Performance Characteristics Result Standards

Air permeability ΑE EN 12152 EN 12153

Watertightness Static: RE 1200

> EN 12154 EN 12155 EN 13050 Dynamic: 250 Pa / 750 Pa

Resistance to wind load Design load: ±2,0 kN/m2

Safety load ±3,00 KN/m2 EN 13116 EN 12179

15 / E5 EN 14019 Impact Resistance $U_f = 2.8 - 3.7 \text{ W/m}^2\text{K}$ EN 12412-2 Thermal transmittance

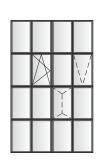
Initial Preload Deflection AAMA 501.4-@30.4psf pass Air permeability ASTM E 283 pass @6.24psf

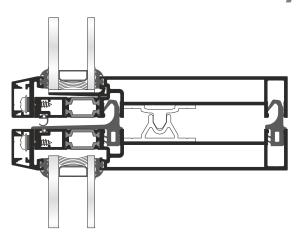
Static Water tightness ASTM E 331 pass @15psf & 25psf Dynamic Water tightness AAMA 501.1-05 pass @15psf & 25psf Uniform load Deflection AAMA 501.1-05 pass @60psf & 70 psf

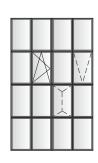
Uniform load Test (150% safety Factor loads) AAMA 501.1-05 pass @±90 & ±105 psf

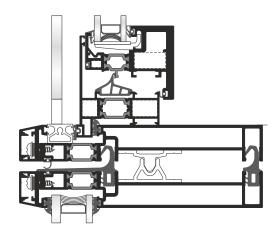
> SMARTIA M65

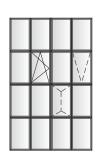
Primary sections

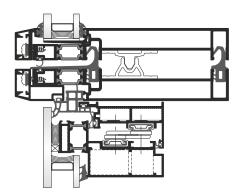




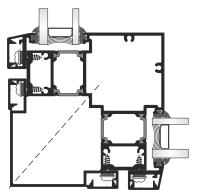




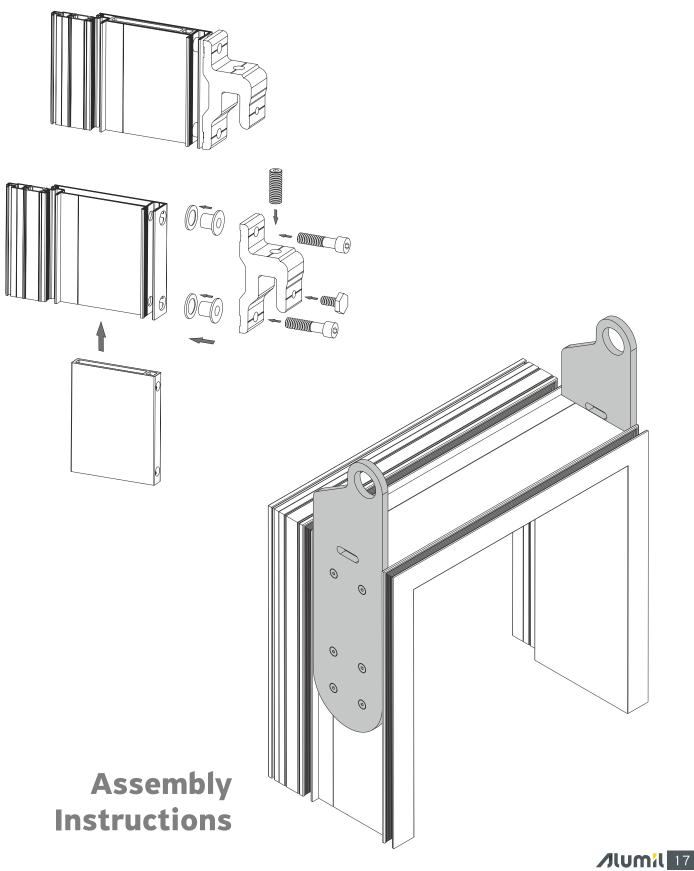








Support System





SMARTIA M75 is a robust unitized curtain wall system with a column of 75 mm depth that meets the needs of demanding projects for high-rise buildings. The system guarantees easy and secure application.

- 75mm basic system width
- Easy replacement of broken glasses
- Various hinged window types can be applied: parallel projected, top hung, all Tilt & Turn windows
- Certified system performance by the AAMA institutes

Exterior aesthetics

Structural glazed frameless Visible aluminium frame: 33.40 mm. Distance between frames: 16 mm





TECHNICAL CHARACTERISTICS

Exterior visible width	75 mm
Mullion depth	156 mm
Transom depth	156 mm
Glazing	Unitized type with EPDM gaskets
Glass thickness	from 25 to 50 mm
Mullions max inertia	$I_x = 364$ $I_y = 144 \text{ cm}^4$
Transoms max inertia	$I_x = 594$ $I_y = 179$ cm ⁴
Max dimensions WxH	1500 x 3750 cm

Certified Performance Characteristics Result Standards

Inter-storey displacement (left & right) AAMA 501.4-09 1", pass Air permeability ASTM E 283 pass @6.24psf Ultimate Strength Test pass ASTM E 330 @60psf & 63psf Resistance to Wind Load

ASTM E 330 pass @40psf & 42psf (L/175) Watertightness static ASTM E 331 pass @15psf & 12psf

Watertightness dynamic ASTM E 331 pass @15psf Inter-storey displacement (up & down) AAMA 501.7-11 3/4", pass AAMA 501.1-05 pass @12psf Watertightness dynamic Sound Reduction ASTM E90-09 STC=41 ASTM E90-09 STC=45 Sound Reduction

Sound Reduction ASTM E90-09 STC=43 Thermal transmittance $U_r = 1.6 \text{ W/m}^2 \text{K}$ 75mm Width of the system

Thickness of the infills diverts according to the needs

Possibility to use triple glazing or infill panels with maximum thickness of 50 mm.

Secure and easy mounting of modules

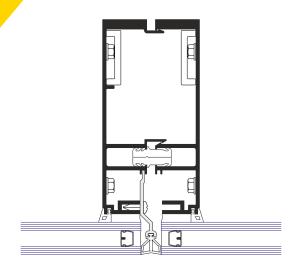
Suspension hook made of aluminum, mounted on the unit panels and serving as a link between them. Possibility of position adjustment:

x±17mm

y±52mm

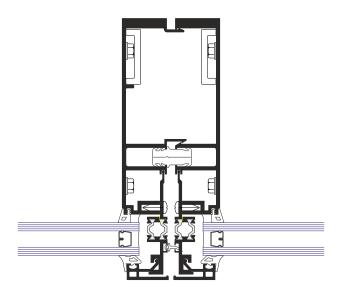
z±31mm

>SMARTIA M75

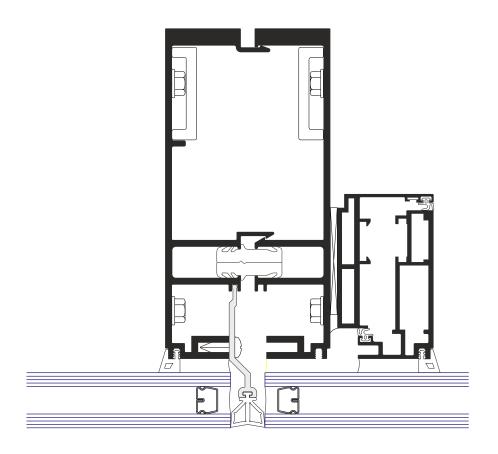


Typical SSG Mullion VISION GLASS

Primary sections

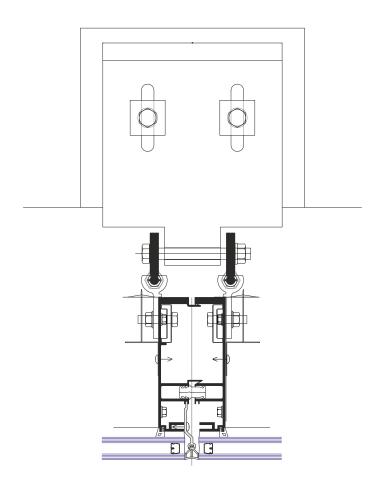


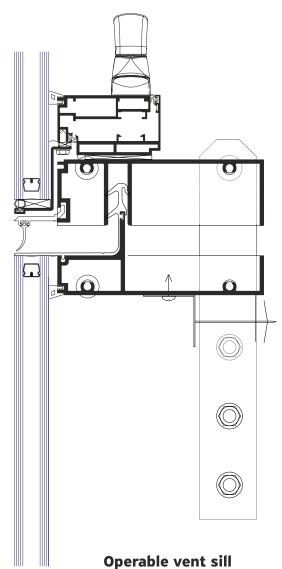
Typical CAPTURED Mullion



Operable Vent Jamb

Support System





Projected Window Section



SMARTIA M85s is a structural, thermally broken unitised curtain wall with inside face width of 85 mm.

- 85mm basic system width
- Only glazing with total thickness of 32 mm or 44 mm is applicable.
- Easy replacement of broken glasses.
- Projected windows can be seamlessly applied.

Types of vent

Fixed, Top hung window, Parallel projected window.

Exterior aesthetics

No Visible aluminium frame.

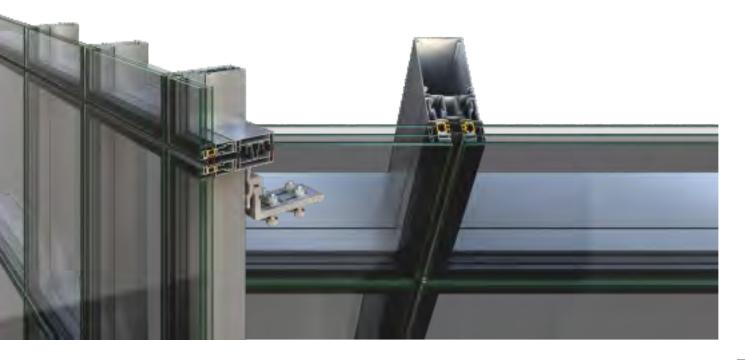
Distance between frames: 20 mm.





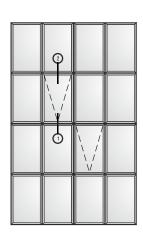
TECHNICAL CHARACTERISTICS

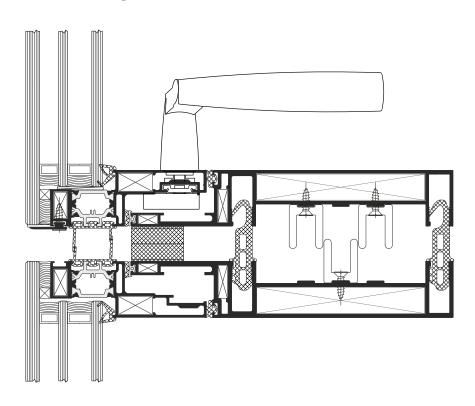
Exterior visible width	85 mm hor./85 mm ver
Mullion depth	185mm
Transom depth	185 mm
Glazing	Unitized type with Structural Silicon & EPDM gaskets
Glass thickness	32/44 mm
Mullions max inertia	$I_x = 13.4$ $I_y = 307$ cm ⁴
Transoms max inertia	$I_x = 134$ $I_y = 548$ cm ⁴

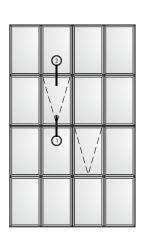


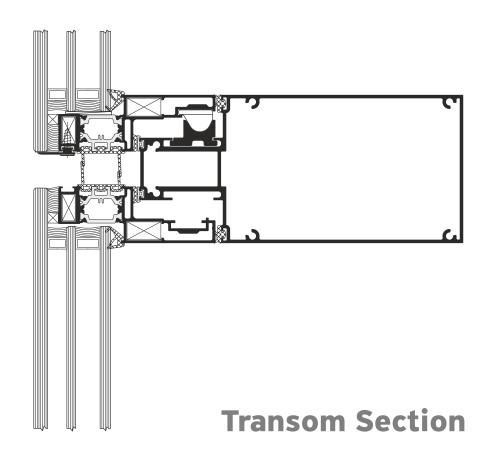
> SMARTIA M85s

Projected Window Section

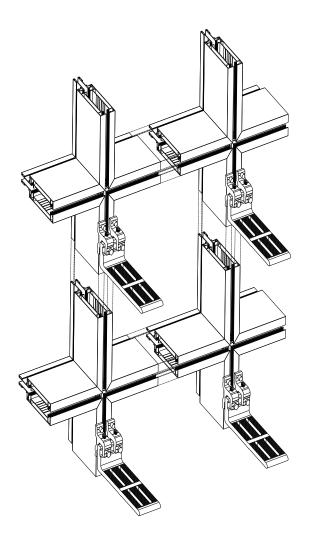


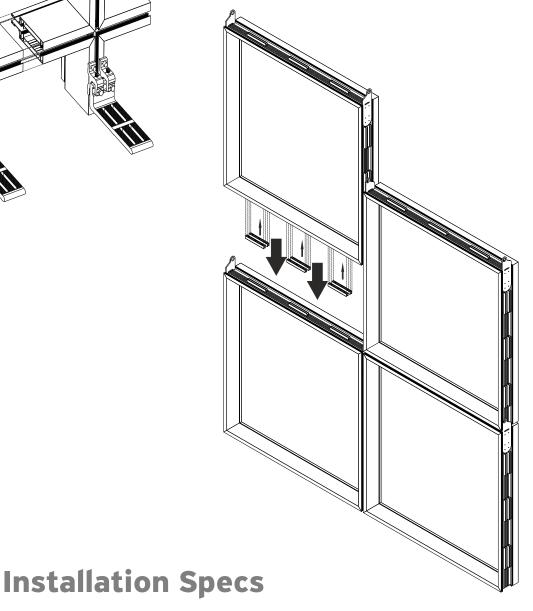






Support System







Certification of Unitised facade systems

At Alumil, we strongly believe that nothing should be left by chance when it comes to the performance of our systems. Testing and certification is $\frac{1}{2}$ one of our main issues to secure that our products will resist to harsh weather conditions and will last for a lifetime against factors such as wind pressure, air and water tightness or impact.

The whole procedure is monitored by independent, worldwide renowned $% \left(1\right) =\left(1\right) \left(1\right)$ bodies that can guarantee the indicated performance of our solutions.



Evidence of Performance

Air permeability Watertightness static / dynamic Resistance to wind load Impact resistance, Hose test

Test Report 108 41001e

Translation of Test Report 108 41001 dated 24 August 2009

Client ALUMIL - MILONAS ALUMINIUM INDUSTRY S. A. Industrial Area

> 61100 Kilkis Greece

Product	Unitised construction
System	M 65 Unitised CW System
External dimensions (W x H)	2,508 mm x 5,708 mm

Frame material Alumium profiles with thermal break

Test		Classification / Results
	1631	Facade construction
EN 12152	Air permeability	AE
EN 12154	Watertightness static	RE ₁₂₀₀
ENV 13050	Watertightness dynamic	250 Pa / 750 Pa
EN 13116	Resistance to wind load	Design load ± 2,0 kN/m² Safety load ± 3,0 kN/m²
EN 14019	Impact resi stance	15 / E5
AAMA 501.2	Hose test	no water penetration

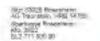
npd = no performance determined

ift Rosenheim 29. September 2009 Jorn Peter Lass, Dipl.-Ing. (FH) Head of Testing Department ift Centre Windows & Facades

ift Centre Windows & Facades









Test sequence according to EN 13830 : 2003-09, Curtain walling - Product standard Test standards EN 12153, EN 12155 EN 12179, EN 14019

ENV 13050 Corresponds by the national standard (DIN EN)

Repersentation



Instruction for use

The present test report serves to demonstrate the above characterdemonstrate the above characteristics for curtain walling according to EN 13830: 2003-09. The results obtained can be used by the manufacturer as the basis for the manufacturer ITT test report summary. The conditions and requirements set out by EN 13830: 2003-09. Bell by observed. 2003-09 shall be observed

Validity

The data and results provided refer solely to the tested and described specimen.

The test does not allow any statement to be made on further characteristics of the present structure regarding performance and quality, in particular the effects of weathering ad ageing.

Notes on publication

The ift-Guidance Sheet "Conditions and Guidance for the Use of **ift** Test Documents" applies.

The cover sheet can be used as an abstract.

Contents

The report contains a total of 65 pages.







NATIONAL CERTIFIED TESTING LABORATORIES

FIVE LEIGH DRIVE

YORK, PENNSYLVANIA 17406 •

TELEPHONE (717) 846-1200 FAX (717) 767-4100 www.nctlinc.com

MOCK-UP TEST REPORT

Report No: NCTL-110-11828-2 Test Dates: 11/06-09/09 Report Date: 12/16/09

Revision Date: 01/13/10

Client: Alumil N.A. Corporation 4401 21st. Street, Suite 203 Long Island City, NY 11101

Test Site: National Certified Testing Laboratories, 5 Leigh Drive, York, PA 17406

Test Specimen: Alumil N.A. Corporation's "M65 System"

Test Methods for Mock-Up Performance: ASTM E 283-04, "Standard Test Method for Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors"; ASTM E 330-02, "Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference"; ASTM E 331-00, "Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference":

AAMA 501.1-05, "Standard Test Method for Exterior Windows, Curtain Walls and Doors for Water Penetration Using Dynamic Pressure."

TEST PROCEDURE

Air Leakage: A test chamber was constructed surrounding the interior of the test specimen. The intent of the air leakage test is to measure extraneous infiltration through operable sash/panel/vent crack length, fixed glazing, hardware, etc. within the area enclosed by the window frame. Other sources of air infiltration (i.e. through fasteners holes in the side frames, frame corner seals around the frame, through interior trim and interior mullion covers, through exterior panning systems, through leakage in the test equipment or the chamber attachment to the test area are referred to as extraneous air and must be measured and accounted for.

Extraneous air is determined by applying a "blank" of thin plastic sheeting to the exterior of the window frame. The net air passing through the window is calculated by subtracting the measured amount of air infiltration with the "blank" from the total measured air infiltration without the "blank" (gross air). The air leakage is calculated in cubic feet per minute (cfm) of net air infiltration per amount of area (ft^2). Air leakage tests were conducted at a static test pressure differential 6.24 psf across the test specimen equivalent to a 49 mph wind load. The allowable air infiltration rate was 0.06 cfm/ ft^2 .





NATIONAL CERTIFIED TESTING LABORATORIES

FIVE LEIGH DRIVE • YORK, PENNSYLVANIA 17406 • TELEPHONE (717) 846-1200 FAX (717) 767-4100 www.nctlinc.com

Alumil N.A. Corporation 4401 21st St., Suite 203 Long Island City, NY 11101 Attn: Kyp Bazenikas November 23, 2009

Dear Mr. Bazenikas:

On November 09, 2009 tests were completed by our laboratory at our facility on the Alumil N.A. Corporation M65 modular Curtain Wall System in accordance with the ASTM E 283-04, E 331-00, E 330-02 test methods and AAMA 501.1.

TEST RESULTS

Test Method		Title of Test	Measured
ASTM E 330		Preload to 50% of Design Pressure	N/A
ASTM E 283		Air Infiltration 6.24 psf (49 mph)	0.02 cfm/ft ² *
ASTM E 331		Static Water Resistance 5.0 gph/ft² WTP= 15.0 psf	No Leakage
ASTM E 330	**	Uniform Load Structural-100% 60.0 psf exterior 60.0 psf interior	No Damage No Damage
AAMA 501.4	**	Inter-story Differential Vertical Horizontal	No Damage No Damage
AAMA 501.1		Dynamic Water Resistance 5.0 gph/ft² WTP= 15.0 psf	No Leakage
ASTM E 283		Repeat-Air Infiltration 6.24 psf (49 mph)	$0.02~\mathrm{cfm/ft^{2*}}$
ASTM E 331		Repeat-Static Water Resistance 5.0 gph/ft² WTP= 15.0 psf	No Leakage
ASTM E 330	**	Uniform Load Structural-150%-Safety Factor 90.0 psf exterior 90.0 psf interior	No Damage No Damage
37 1 1 1			

^{**} No glass breakage or permanent damage causing the unit to be inoperable

TEST COMPLETED 11/09/09

A full report containing the details of the above referenced testing is forthcoming at the time of this letter. If you have any questions, please contact me at your convenience.

Sincerely,

NATIONAL CERTIFIED TESTING LABORATORIES

ROBERT Wm. DeFAYETTE

Field Testing / Curtain Wall Coordinator

Ref: NCTL-110-11828-2



SMARTIA M75

Certification



NATIONAL CERTIFIED TESTING LABORATORIES

FIVE LEIGH DRIVE • YORK, PENNSYLVANIA 17406 • TELEPHONE (717) 846-1200 FAX (717) 767-4100 www.nctlinc.com

CURTAIN WALL/ MOCK-UP TEST REPORT

NCTL-110-20022-1

ALUMIL N.A. CORPORATION

515 WEST 36TH STREET **NEW YORK, NY**

TEST DATES 06/12/17, 06/26/17, 06/29/17 - 06/30/17, 7/05/17 and 07/10/17

> **REPORT DATE** 08/10/17









LABORATORY TESTING REPORT FOR THE CURTAIN WALL

M75 SYSTEM CURTAIN WALL

Submitted to: John Lombardi Alumil N.A. Corp.

File AC-00154-A

Prepared by:

remune Pur Electonically signed by : Geneviève Paré, Jr. Eng.

Project Manager, Laboratory Mock-up-Testing

Approved by:

Electonically signed by :

Dominic Massie, Eng.

Manager, Laboratory Mock-up Testing

Varennes, November 4th 2016

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New York Many York, NY 10017 Temperhadra arm

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RIVERBANK ACOUSTICAL LABORATORIES

1512 S BATAVIA AVENUE GENEVA, IL 60134

An MALION Technical Center

RIVERBANK.ALIONSCIENCE.COM FOUNDED 1918 BY WALLACE CLEMENT SABINE

630-232-0104

Alumil N.A.

Test Report

RAL-TL16-459 Page 5 of 9

2016-10-07 TEST RESULTS

Sound transmission loss values tarbulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages. The precision of the transmission loss test data is within the limits set by the ASTM Standard E90-09.

FREQ.	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>		FREQ.	<u>T.L.</u>	<u>C.L.</u>	DEF.
				_				
100	25	0.75			800	39	0.13	4
125	23 27	0.73			1000	39	0.13	5
160	28	0.90			1250	40	0.15	5
•••		0.40			1.000	40	0.40	
200	32	0.43			1600	43	0.10	2
250	35	0.42			2000	45	0.09	
315	36	0.45	1		2500	48	0.10	
400	38	0.36	2		3150	52	0.06	
500	39	0.17	2		4000	54	0.06	
630	40	0.22	2		5000	54	0.06	

STC=41

ABBREVIATION INDEX

FREQ. = FREQUENCY, HERTZ, (cps)

T.L. = TRANSMISSION LOSS, dB

C.L. = UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT DEF. = DEFICIENCIES, dB<STC CONTOUR (SUM OF DEF = 23)

STC = SOUND TRANSMISSION CLASS

Tested by

Dean Victor Experimentalist Report by

Miles Possing

Acoustician

Eric P. Wolfram Laboratory Manager



RAL IS ACCREDITED BY THE US DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM TO ISO 17025:2005 LABORATORY QUALITY MANAGEMENT AND SPECIFIC ACOUSTICAL TEST STANDARDS. THIS TEST REPORT IN NO WAY CLAIMS OR IMPLIES PRODUCT CERTIFICATION, APPROVAL OR ENDORSEMENT BY NVLAP, NIST, OR RAL.

THIS REPORT SHALL NOT BE MODIFIED OR PARTIALLY REPRODUCED WITHOUT THE WRITTEN APPROVAL OF RAL. NVLAP LAB CODE 100227-0 THE RESULTS REPORTED APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR TESTING; RAL ASSUMES NO RESPONSIBILITY FOR THE PERFORMANCE OF ANY OTHER SPECIMEN.



RIVERBANK ACOUSTICAL LABORATORIES

1512 S BATAVIA AVENUE

An MALION Technical Center

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GENEVA, IL 60134 630-232-0104

Test Report

RAL-TL16-393

Alumil N.A. 2016-08-12

Page 5 of 9

TEST RESULTS

Sound transmission loss values are tabulated theateighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages. The precision of the transmission loss test data is within the limits set by the ASTM Standard E90-09.

FREQ.	<u>T.L.</u>	<u>C.L.</u>	DEF.		FREQ.	<u>T.L.</u>	<u>C.L.</u>	DEF.
				_				
100	23	0.62			800	42	0.15	2
		0.63	4			43		
125	23	1.13	4		1000	44	0.14	2
160	29	0.54	1		1250	44	0.11	3
200	31	0.25	2		1600	43	0.10	4
250	33	0.33	3		2000	44	0.07	3
315	36	0.25	3		2500	47	0.06	
400	39	0.26	3		3150	51	0.06	
500	42	0.15	1		4000	56	0.06	
630	44	0.15			5000	57	0.05	

STC=43

ABBREVIATION INDEX

FREQ. = FREQUENCY, HERTZ, (cps)

T.L. = TRANSMISSION LOSS, dB

= UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT DEF. = DEFICIENCIES, dB<STC CONTOUR (SUM OF DEF = 31)

STC = SOUND TRANSMISSION CLASS

Tested by

Dean Victor

Experimentalist

Report by

Acoustician

Eric P. Wolfram

Laboratory Manager



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Test Report

Alumil N.A. 2016-09-30

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TEST RESULTS

Sound transmission loss values are tabulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages. The precision of the transmission loss test data is within the limits set by the ASTM Standard E90-09.

FREQ.	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>		FREQ.	<u>T.L.</u>	<u>C.L.</u>	<u>DEF.</u>
				=				
100	27	0.71			800	44	0.13	3
125	31	0.93			1000	45	0.15	3
160	36	0.43			1250	48	0.14	1
200	38	0.42			1600	49	0.13	
250	41	0.29			2000	50	0.10	
315	37	0.40	4		2500	51	0.08	
400	36	0.43	8		3150	54	0.07	
500	40	0.13	5		4000	55	0.05	
630	43	0.20	3		5000	58	0.06	

STC=45

ABBREVIATION INDEX

FREQ. = FREQUENCY, HERTZ, (cps)

T.L. = TRANSMISSION LOSS, dB

C.L. = UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT DEF. = DEFICIENCIES, dB<STC CONTOUR (SUM OF DEF = 27)

STC = SOUND TRANSMISSION CLASS

Tested by

Marc Sciaky

Experimentalist

Report by

Acoustician

Approved by

Eric P. Wolfram

Laboratory Manager

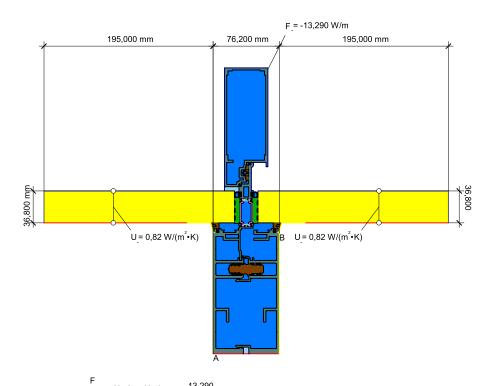


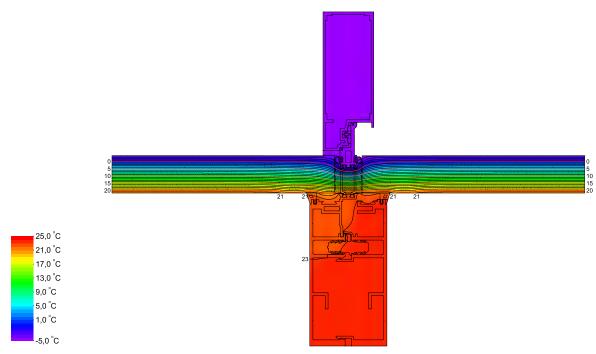
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> SMARTIA M75

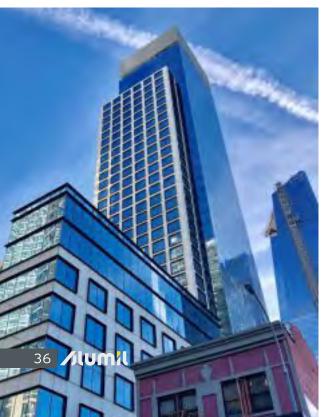
Certification





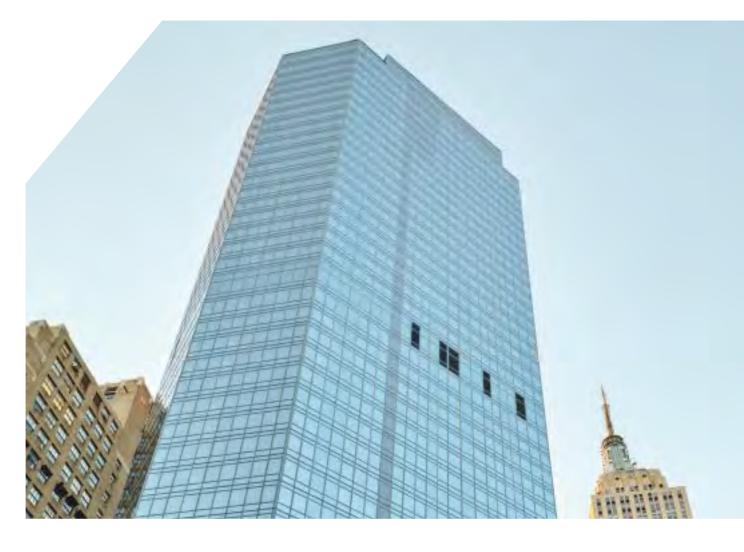
References





515 West 36th Street Manhattan's Midtown West New York, USA

39 levels



158 Madison Avenue Manhattan New York, USA

42 levels 12077 m² 130.000 sqft



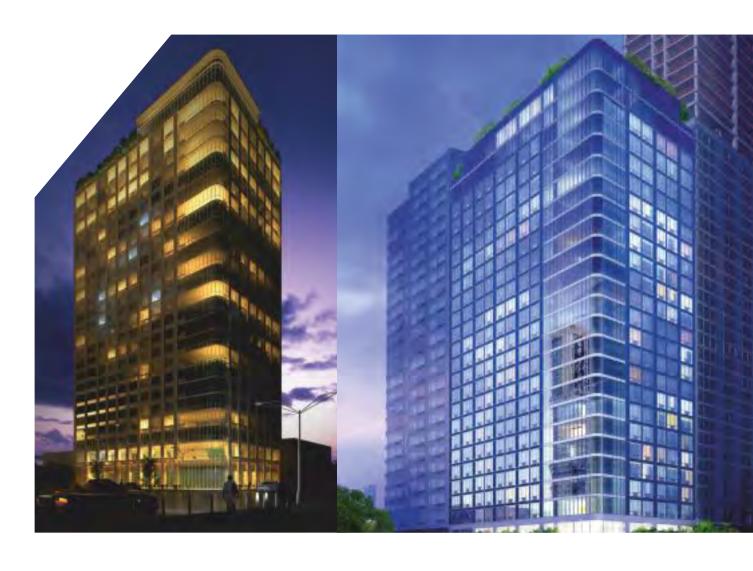
References





60 Water Street Brooklyn New York, USA

17 levels



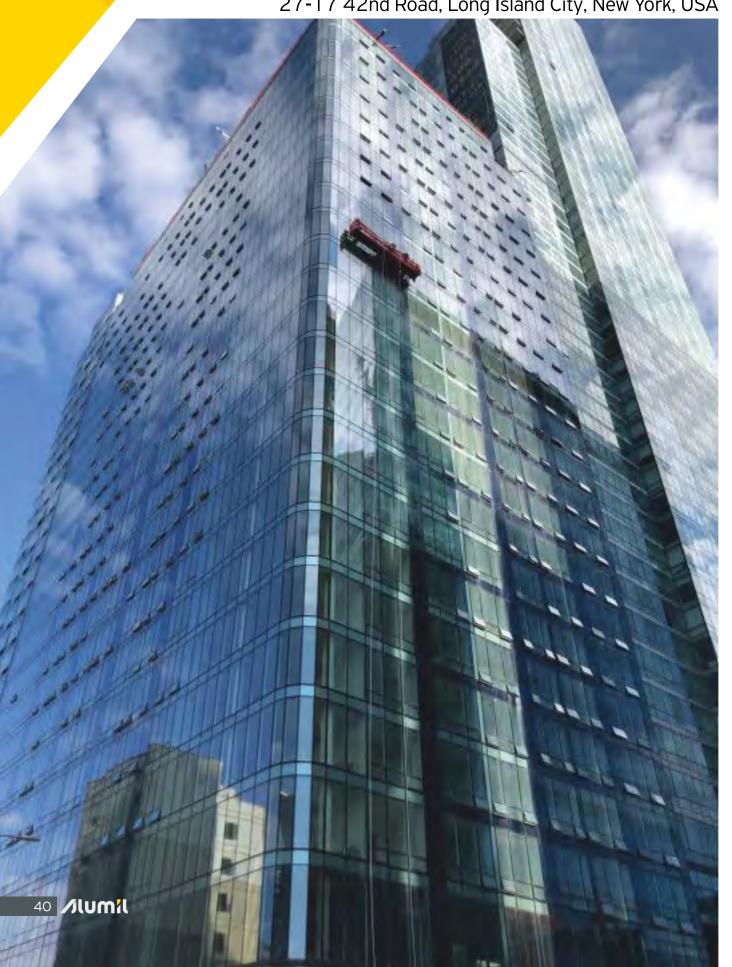
Star Tower 27-17 42nd Road Long Island City New York, USA

26 levels 5574 m² 60.000 sqft



References

Star Tower 27-17 42nd Road, Long Island City, New York, USA



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