



**SECURITY FOR BUILDINGS**  
WITH SOLUTIONS  
BY ALUPROF



## POSITIVE RESULTS FOR HURRICANE TESTS

ALUPROF has received positive results for **hurricane tests** conducted in line with the American Society for Testing and Materials (**ASTM**) guidelines and **Florida Building Code** Testing Application Standards (TAS) 201-94, 202-94, and 203-94. The tests were carried out on the ALUPROF **MB-SR50N** facade system, **MB-79N** fixed and tilt-and-turn window system, and on the **MB-45** fixed window system, which is widely used in the construction of buildings in the USA.

The testing process, which lasted for many hours, and the certifications it resulted in, confirm that ALUPROF's systems can be used in regions where there is a **high risk of hurricanes**, including the east coast of the USA and part of the State of New York. However, it should be borne in mind that some places may have further regulations as regards manufacturer certification or additional static calculations.

Window and door  
with highest  
thermal insulation



Florida Building Code TAS 201-94  
Florida Building Code TAS 202-94  
Florida Building Code TAS 203-94

Acoustic Tested

## WINDOW & DOOR SYSTEM

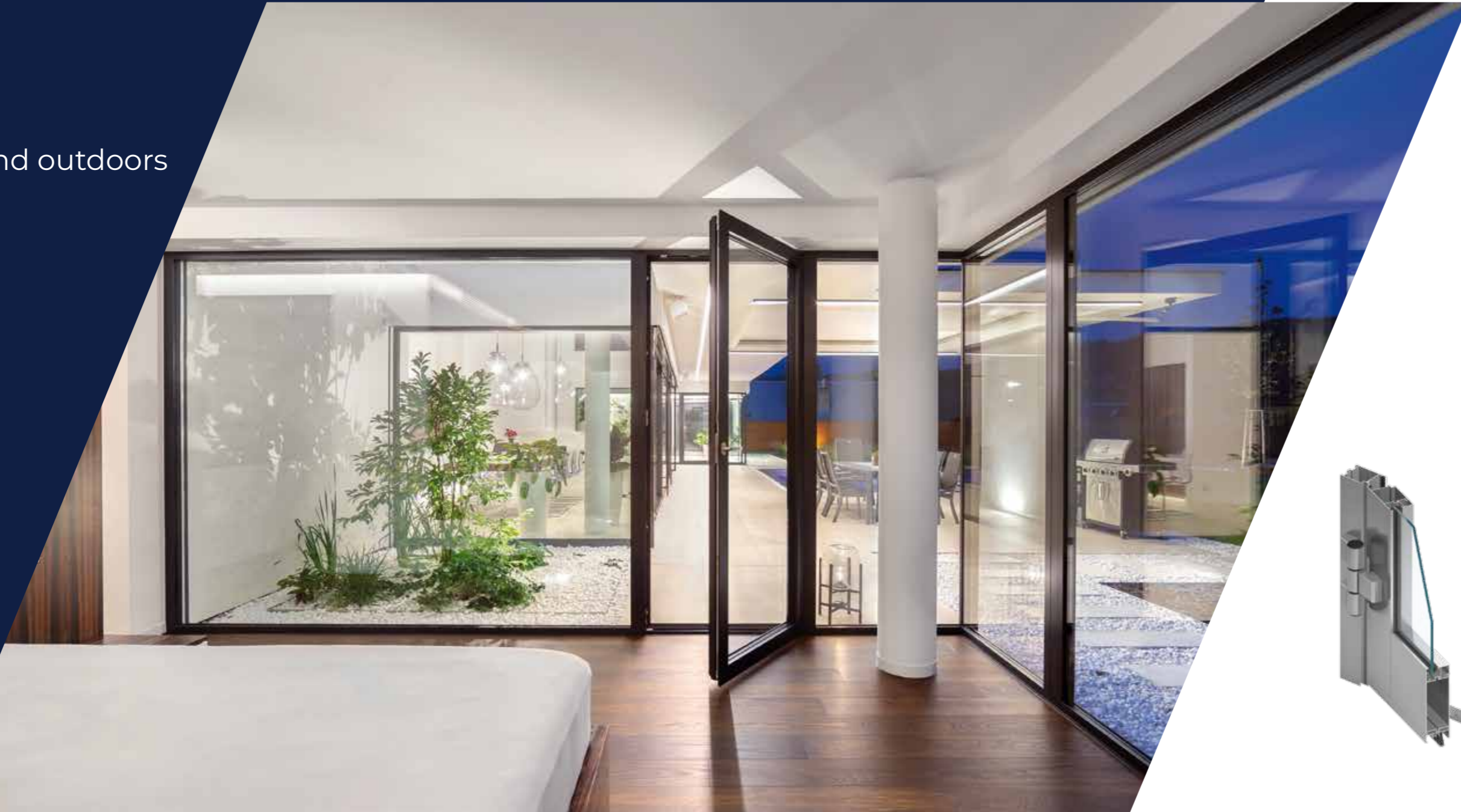
# MB-79N SI



The MB-79N SI is the latest cutting-edge, budget-friendly window and door system in the ALUPROF range. Introduced with a view to meeting heightened thermal insulation requirements, it is employed for a broad range of structures, including fixed, turn, tilt, tilt and turn, and tilt-and-slide windows, single and double exterior doors and storefront solutions with doors. In addition, this product range features the MB-79N CASEMENT system for outward-opening windows with a thermal break. The system passed positively structural Performance Tests.

Aluprof obtained positive results of **hurricane tests** conducted for the **MB-79N** system in accordance with **ASTM guidelines** and **Florida Building Code** TAS 201-94, TAS 202-94 and TAS 203-94.

Perfect  
for indoors and outdoors



Florida Building Code TAS 201-94  
Florida Building Code TAS 202-94  
Florida Building Code TAS 203-94

## WINDOW & DOOR SYSTEM

 MB-45

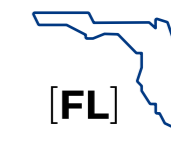


MB-45 is a modern aluminum system intended for designing elements of architectural exterior and interior enclosures that do not require thermal insulation, e.g. various types of partition walls, windows, manual and automatic sliding doors, swing doors, vestibules, display windows, ticket box offices, showcases and spatial structures. The system passed positively structural Performance Tests.

Aluprof obtained positive results of **hurricane tests** conducted for the **MB-45** system in accordance with **ASTM guidelines** and **Florida Building Code** TAS 201-94, TAS 202-94 and TAS 203-94.

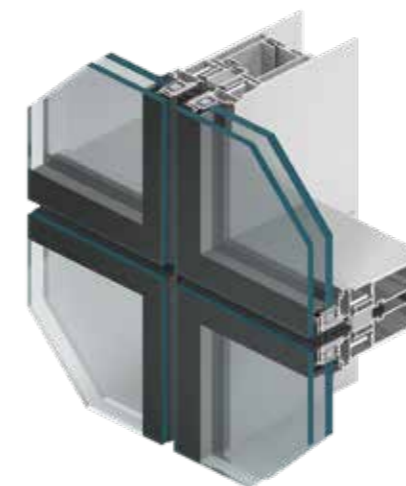
# ICE Krakow Congress Centre

📍 Cracow



Structural Performance Test

## MULLION-TRANSOM WALL WITH HIGH INSULATION THERMAL MB-SR50N / MB-SR50N HI+



MB-SR50N facade structures with visible narrow dividing lines, ensure durability and strength of the structure. Thanks rich profiles offer, architects and designers can implement even the most bold ideas in the field of aluminum and glass structures.

In order to achieve optimal thermal and acoustic insulation in the system MB-SR50N HI+ uses PE material insulator which gives very good thermal insulation  $U_f$  from  $0.59 \text{ W}/(\text{m}^2\text{K})$ . The MB-SR50N HI+ system is certified by the PHI Darmstadt Institute in the highest A+ class, which confirms that it is made there, structures can be used in the construction of facilities passive.

Aluprof obtained positive results of **hurricane tests** conducted for the **MB-SR50N** system in **accordance with ASTM** guidelines and **Florida Building Code** TAS 201-94, TAS 202-94 and TAS 203-94.



# THE WORLD'S HIGHEST STANDARDS

Aluprof constantly attaches great importance to continuous development and maintaining the highest level of its products and services. Each employee is obliged to maintain high quality. The process begins with suppliers, i.e. with high-quality components, from which systems are made. Innovative technologies and modern machine park is guaranteed by solid and durable products and customer satisfaction. It is also due to the creative work of the design department. Aluprof products are tested in many different laboratories globally.

## HURICANE TESTS / NCTL

CHARACTERISTIC	MB-45			MB-79N			MB-SR50N			
<b>Specification</b>	Florida Building Code TAS 201-94, Florida Building Code TAS 202-94, Florida Building Code TAS 203-94									
<b>Air infiltration per ASTM E283 in accordance with TAS 202-94</b>	<0.01 cfm/ft²			<0.01 cfm/ft² / <0.02 cfm/ft²			<0.01 cfm/ft²			
<b>Water Penetration Resistance per ASTM E331 in accordance with TAS 202-94</b>	9 psf - Passed / No water penetration 13,5 psf - Passed / No water penetration 21 psf - Passed / No water penetration			15 psf - Passed / No water penetration 21 psf - Passed / No water penetration			9 psf - Passed / No water penetration 13,5 psf - Passed / No water penetration			
<b>Static Air Pressure per ASTM E330 in accordance with TAS 202-94</b>	Designed load pressure	±60 psf	±90 psf	±140 psf	Designed load pressure	±100 psf	±140 psf	Designed load pressure	±60 psf	±90 psf
	Overload / Structural Load Pressure	±90 psf	±135 psf	±210 psf	Overload / Structural Load Pressure	±150 psf	±210 psf	Overload / Structural Load Pressure	±90 psf	±135 psf
<b>Forced Entry Resistance per ASTM F588 in accordance with TAS 202-94</b>	Passed - Grade 10									
<b>Large Missile Impact / Pressure Loading in accordance with TAS 201-94</b>	Impacts rejected without allowing penetration and the product shows no resultant failure or distress.									

## USA TESTS – FACADES / NCTL

CHARACTERISTIC	MB-SR50N / MB-SR60N
<b>Air infiltration 299 Pa (6.24psf)</b>	0.05 L/s/m² (0.01 cfm/ft² measured) Prior to and After Design Load
<b>Water Penetration Resistance</b>	718 Pa (15.0 psf)*
<b>Design Pressure</b>	±2873 Pa (±60.0 psf)
<b>Uniform Load Structural Test</b>	±4309 Pa (±90.0 psf)

## USA TESTS – DOORS AND WINDOWS / NCTL

CHARACTERISTIC	MB-70HI	MB-70HI CASEMENT	MB-86	MB-86 US	MB-86 SE	MB-86 WW	MB-SLIMLINE	MB-FERROLINE	MB-77HS HI AS	MB-77HS HI ES	MB-SKYLINE
<b>Design Pressure</b>	±2880 Pa (±60.15 psf)	±2880 Pa (±60.15 psf)	±2880 Pa (±60.15 psf)	±2880 Pa (±60.15 psf)	±2880 Pa (±60.15 psf)	±2880 Pa (±60.15 psf)	±2880 Pa (±60.15 psf)	±2880 Pa (±60.15 psf)	±2400 Pa (±50.13 psf)	±1436 Pa (±30.0 psf)	±2400 Pa (±50.13 psf)
<b>Air infiltration</b>	0.1 L/s/m² (0.02 cfm/ft²)*	0.2 L/s/m² (0.03 cfm/ft²)** 0.1 L/s/m² (0.02 cfm/ft²)***	0.1 L/s/m² (0.01 cfm/ft²)** 0.1 L/s/m² (<0.01 cfm/ft²)*** 0.4 L/s/m² (0.08 cfm/ft²)***	0.1 L/s/m² (0.02 cfm/ft²)******	0.1 L/s/m² (0.01 cfm/ft²)******	0.1 L/s/m² (0.01 cfm/ft²)*** 0.5 L/s/m² (0.10 cfm/ft²)***	0.1 L/s/m² (0.02 cfm/ft²)*	0.2 L/s/m² (0.03 cfm/ft²)** 0.2 L/s/m² (0.04 cfm/ft²)***	0.2 L/s/m² (0.03 cfm/ft²)** 0.3 L/s/m² (0.05 cfm/ft²)*** 0.9 L/s/m² (0.18 cfm/ft²)***	75Pa (1.57 psf) 0.1 L/s/m² (0.01 cfm/ft²)* 299Pa (6.24 psf) 0.5 L/s/m² (0.09 cfm/ft²)** 0.7 L/s/m² (0.14 cfm/ft²)***	0.6 L/s/m² (0.011 cfm/ft²)
<b>Water Penetration Resistance Test Pressure</b>	720 Pa (15.04 psf)*	720 Pa (15.04 psf)*	720 Pa (15.04 psf)*	720 Pa (15.04 psf)*	720 Pa (15.04 psf)******	720 Pa (15.04 psf)** 580 Pa (12.11 psf)***	720 Pa (15.04 psf)*	720 Pa (15.04 psf)*	480 Pa (10.03 psf)*	287 Pa (6.0 psf)	360 Pa (7.52 psf)
<b>Uniform Load Structural Test Pressure</b>	±4320 Pa (90.23 psf)	±4320 Pa (90.23 psf)	±4320 Pa (90.23 psf)	±4320 Pa (90.23 psf)	±4320 Pa (90.23 psf)	±4320 Pa (90.20 psf)	±4320 Pa (90.23 psf)	±4320 Pa (90.23 psf)	3600 Pa (75.19 psf)	±2155 Pa (±45.0 psf)	±3600 Pa (75.19 psf)

\* - Prior to and After Cycles and Design Load    \*\* - Prior to Cycles    \*\*\* - After Cycles and Design Load