



ALUPROF SOLUTIONS FOR THE US MARKET



TRADITION AND MODERNITY

Aluprof SA is part of Grupa Kęty S.A. Capital Group. The company is one of the leading manufacturers of architectural aluminum systems in Europe. Aluprof has branches in many European countries and in the U.S. With over 70 years of experience, Aluprof SA has more than 1,900 regular customers.

The company's annual sales revenues exceed \$ 530 MLN. Export sales account for some 40% of total sales. The company employs over 2,900 people. Aluprof SA'sstate-of-the-art manufacturing facilities located in Bielsko-Biała, Opole, Goleszów, Ogrodzona and Złotów have a surface area of more than 2,475,700 sq ft.



Bielsko-Biała

PLANT IN 9 BIELSKO-BIAŁA

Architectural Aluminum Systems

Area: 516,000 sq ft No. of employees: about 1200

PLANT IN 9 OPOLE Rolling Shutters, Garage Doors, Industrial Gate Systems

Area: 387,000 sq ft No. of employees: about 400

PLANT IN 9 GOLESZÓW

Ready Made Aluminium Products

Area: 484,000 sq ft No. of employees: about 300

PLANT IN 9 ZŁOTÓW

Construction Accessories

Area: 1,022,000 sq ft No. of employees: about 350

PLANT IN 9 OGRODZONA

Research & Innovation Center

— Area: 107,000 sq ft





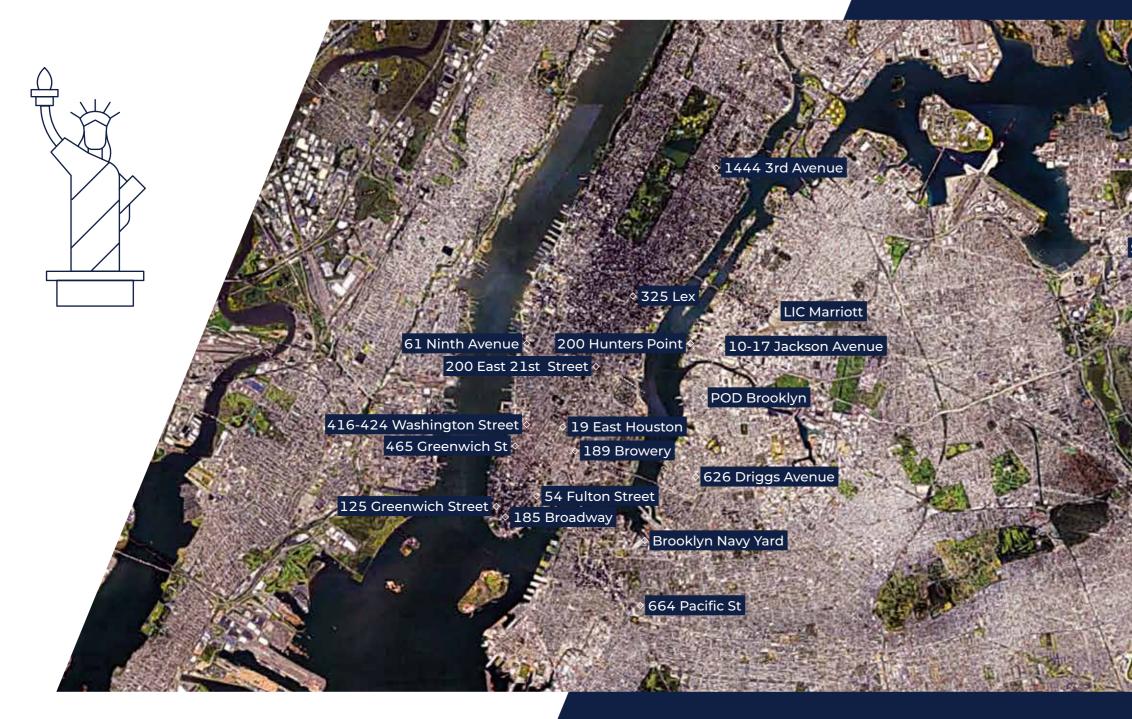
PRODUCTION PLANTS













REFERENCE BUILDINGS IN THE USA



AVERAGE PRODUCTION ALUMINIUM BILLETS



PRODUCTION 50 000 TONS OF ALUMINIUM BILLETS LOW CARBON LINE EUROPEAN AVERAGE

SAVING 670 TONS CO₂ ALUPROF SA

 average global primary carbon footprint emissions aluminium by European Aluminium Association



INITIATIVES FOR SUSTAINABLE DEVELOPMENT

- Partnership with the UN Global Compact, an initiative dedicated to sustainable development and follows the pioneering Global Reporting Initiative path, promoting reporting standards in sustainable development
- Management in accordance to ISO 14001
- Membership in the World Green Building Council
- Passive Building Ambassador
- ─ Holder of Cradle to Cradle Certificate[™]
- ALUPROF introduced a range of pro-ecological initiatives, including an electronic invoicing workflow system to reduce the use of paper
- ALUPROF is working to reduce its carbon footprint by 15% by 2025
- ALUPROF's aluminium use is 65% recycled material

HIGHEST QUALITY EUROPEAN PRODUCTS









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 | | | CHARACTERISTIC | MB-SR50N / MB-SR60N |
|--|---|------------|-------------|-------------|--|-------------|-------------|---|------------|-------------|--------------------------------------|---|
| Specification | Florida Building Code TAS 201-94, Florida Building Code TAS 202-94, Florida Building Code TAS 203-94 | | | | | | | | | | Air infiltration 299 Pa (6.24psf) | 0.05 L/s/m² (0.01 cfm/ft² measured) Prior to and After Design Load |
| Air infiltration per ASTM E283 in accordance with TAS 202-94 | <0.01 cfm/ft² | | | | <0.01 cfm/ft² / <0.02 cfm/ft² | | | <0.01 cfm/ft² | | | Water Penetration Resistance | 718 Pa (15.0 psf)* |
| Water Penetration Resistance per ASTM E331 in accordance with TAS 202-94 | 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 | | | Design Pressure | ±2873 Pa (±60.0 psf) |
| Static Air Pressure | Designed load pressure | ±60 psf | ±90 psf | ±140 psf | Designed load pressure | ±100 psf | ±140 psf | Designed load pressure | ±60 psf | ±90 psf | Uniform Load Structural Test | ±4309 Pa (±90.0 psf) |
| per ASTM E330 in accordance with TAS 202-94 | Overload / Structiral Load Pressure | ±90 psf | ±135 psf | ±210 psf | Overload / Structiral Load Pressure | ±150 psf | ±210 psf | Overload / Structiral Load Pressure | ±90 psf | ±135 psf | | |
| Forced Entry Resistance per ASTM F588 in accordance with TAS 202-94 | Passed - Grade 10 | | | | | | | | | | | |
| Large Missile Impact / Pressure Loading in accordance with TAS 201-94 | Impacts rejected without allowing penetration and the product shows no resultatnt failure or distress. | | | | | | | | | | | |

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 |
|--|-------------------------------|---|--|---|------------------------------------|--|-------------------------------|---|---|--|-------------------------------|
| Design Pressure | ±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) |
| Air infiltration | 0.1 L/s/m² (0.02 cfm/ft²)* | 0.2 L/s/m ² (0.03 cfm/ft ²)** 0.1 L/s/m ² (0.02 cfm/ft ²)*** | 0.1 L/s/m ² (0.01 cfm/ft ²)** 0.1 L/s/m ² (<0.01 cfm/ft ²)*** 0.4 L/s/m ² (0.08 cfm/ft ²)*** | 0.1 L/s/m ² (0.02 cfm/ft ²)** *** 0.2 L/s/m ² (0.03 cfm/ft ²)*** | 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/m ² (0.03 cfm/ft ²)** 0.2 L/s/m ² (0.04 cfm/ft ²)*** | 0.2 L/s/m ² (0.03 cfm/ft ²)** 0.3 L/s/m ² (0.05 cfm/ft ²)*** 0.9 L/s/m ² (0.18 cfm/ft ²)*** | 75Pa (1.57 psf) 0.1 L/s/m ² (0.01 cfm/ft ²)* 299Pa (6.24 psf) 0.5 L/s/m ² (0.09 cfm/ft ²)** 0.7 L/s/m ² (0.14 cfm/ft ²)*** | 0.6 L/s/m² (0.011 cfm/ft²) |
| Water Penetration Resistance Test Pressure | 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) |
| Uniform Load Structural Test Pressure | ±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) |

USA TESTS - FACADES / NCTL

| ALUPROF | | 13 |
|---------|--|----|
|---------|--|----|



BESPOKE SOLUTIONS FOR COMMERCIAL FACILITIES WITH REFERENCES







MB-SE80SG



The LIC MARRIOTT is 348 ft high and has 31 stories. Designed with the MB-SE80 SG unitized façade, the building uses a fully structural, four-edge glazing system. In order to meet the project requirements, the design was accordingly modified: changes included sealing system and profiles' structure. This helped to satisfy the required resistance to seismic movements and improved the façade's tightness performance. As regards the bespoke top-hung awning casements and angle joints, they allowed fabrication of the characteristic, "concave portion" of the façade. As for compensation of tectonic movements, the construction enables to increase up to ±13 mm the tolerance of mutual vertical movements of the segments. The MB-SE80 SG also comes with special anchors designed for the façade maintenance personnel.







MB-SE80 SG CW



The MB-SE80 SG CW system, designed for the purpose of constructing Sky View Parc complex of apartment buildings, is intended for execution of curtain walls of suspended and filling type. This unitized façade may be mounted without having to use any scaffolding. On the outside it gives the effect of a uniform glass surface, divided with vertical gaps 7/8" wide and horizontal gaps 1 3/16" wide. Load-bearing sections are 3 1/8" wide and IGU structurally glazed using SSG technology. The idea of independently joined segments of the façade resulted in forming vertical and horizontal expansion joints, which ensure proper performance of the structure. Built in the MB-SE80 SG CW system, the structure features appropriate tightness parameters, high thermal and acoustic performance as well as the assumed resistance to seismic shocks.











Structural Performance Test Airborne Sound Transmission Loss

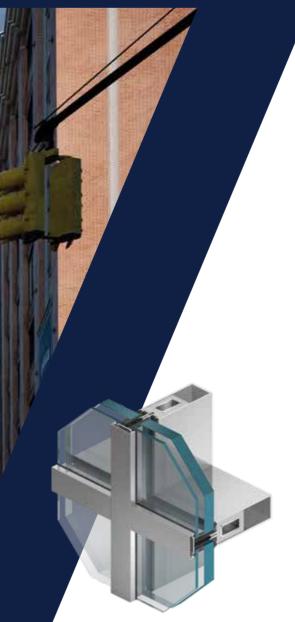
STRUCTURAL UNITIZED FAÇADE MB-SE80 SG WW

Sky View Parc is a complex of three apartment buildings, each of which is 17-story high. The surface of the elevation takes up 266,000 sq ft. Two types of façade systems were designed for the purpose of this project. Most of the surface is covered by the segmentbased wall system MB-SE80 SG WW, which on the outside produces an effect of a uniform glazed belt stretched between the stories of the building, divided with vertical gaps 22 mm wide. The load-bearing sections of the system are 80 mm wide and glass panels are glued onto them with structural silicone in the SSG technology.

The structure comes in two options of the finish – with and without a closing section. Angular connections may also be applied to the structure and the frames of opening elements may be filled with outside opening windows as well as doors of the MB-70HI Casement system. High sound insulation performance compliant with the requirements of the OITC 35 rating system is yet another characteristic feature of the structure.







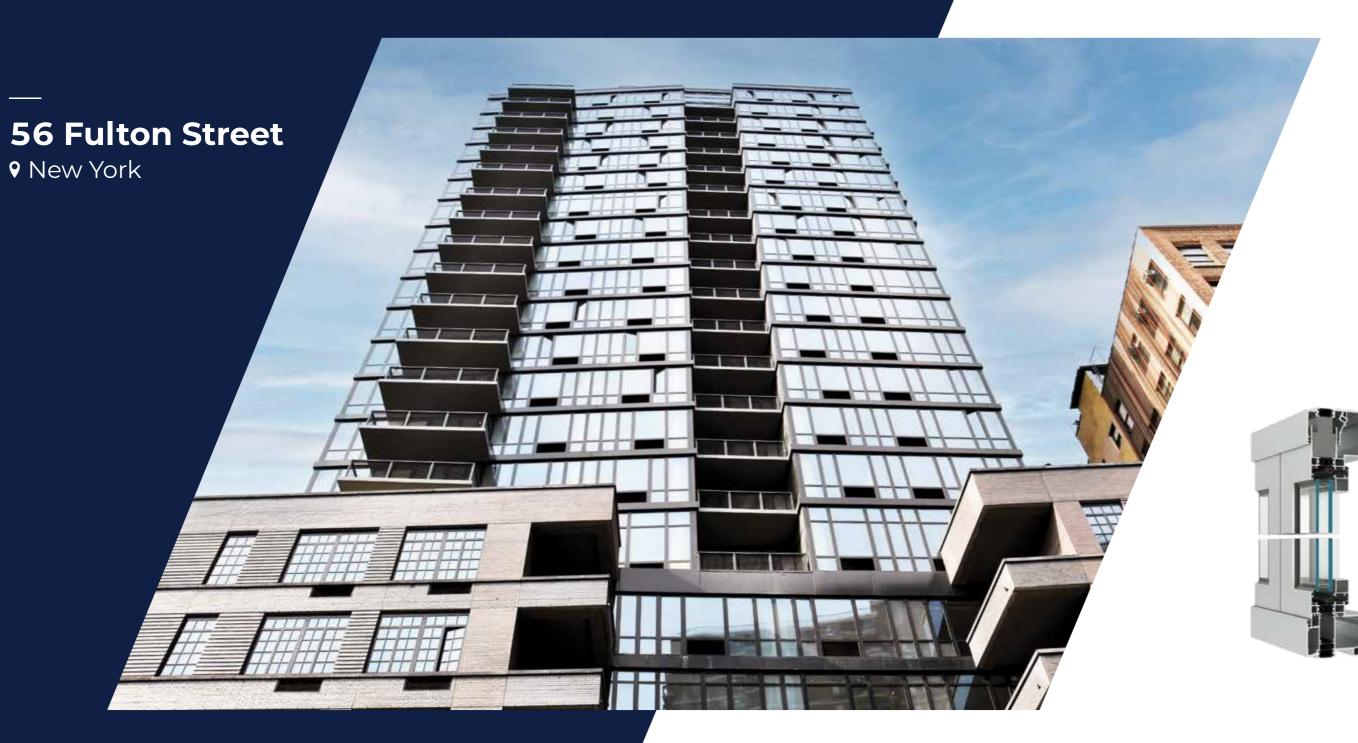


MULLION-TRANSOM WALL SYSTEM MB-SR60NY

MB-SR60NY is a Stick-Build curtain wall system designed specifically for the American market. Insulating glass units are mechanically fixed by means of the glazing bars screwed to the supporting structure with screws. This façade is available both in the basic version and in the Fire Rated for 60 min version. Both versions can be combined without apparent differences in the façade. Constructional solutions of the façade allow to aesthetically combine glazed walls with non-transparent panels finished with metal sheet, and with concrete panels. The system has been successfully tested at NCTL.

The 61 Ninth Avenue is the first project to use MB-SR60NY system. The building has 12 floors and a surface area of over 67,800 sq ft. Constructional solutions used in the structure will provide greater freedom in the arrangement of the building space, and numerous terraces will merge the inside with the outside. MB-SR60NY-based glazed aluminum curtain walls will have a surface area of 43,500 sq ft, of which over 1/4 will be fire-rated constructions.







Acoustic Performance Test Report

MB-70 SE

MB-70 SE sectional window system has been designed specifically for the American market. It allows the construction and fabrication of lightweight, infill curtain walls based on window segments. Wall structure consist of modules (segments) fabricated entirely in the manufacturing facility. The infill wall is finished with mounting profile (gutter, in the bottom part) and with expansion joint profile (in the upper part). Horizontal expansion joint that compensates the variable load-induced ceilings' deflections is made through an appropriate connection of upper mounting profile with the up- per part of the segment to provide a flexible and independent operation of the system elements at ± 1 inch. Window sashes are fabricated using the SSG technology in order to have larger glass panes, while the windows themselves are not visible.

The first building to use MB-70 SE system is a residential building located at 56 Fulton Street in the South Street Seaport, NYC. The building is 272 feet high, has 23 floors and 128.500 square feet of surface area. It includes 120 apartments, commercial spaces on the ground floor, and facilities for residents, such as rooftop club, fitness studio and bicycle storage room.







UNITIZED FAÇADE MB-SE98 SG

125 Greenwich is 278m (912 feet) high, and has 88 levels. As provided for in the architectural design, the external wall has rounded corners, providing the residents dwellers with a magnificent panoramic view to the city. 125 Greenwich Street-dedicated unitized curtain wall system MB-SE98 SG enables to build fully glazed constructions from the outside, and the glass is attached by means of structural sealant using the SSG technology. Typical dimensions for this structure are: width of mullions & transoms 98mm (3.85"), vertical expansion joint 16mm (0.62"), horizontal expansion joint 42mm (1.65"). Horizontal expansion joint has a large movement tolerance range – up to ± 27.4 mm (1.08").

MB-SE98 SG system has two types of mullions that provide the ability to fabricate basic types of façade segments plus the segments with a special vertical profile for attaching a transport platform. Also, the system has two types of motorized and manual parallel opening windows.





Brooklyn Navy Yard Dock. 72 9 New York

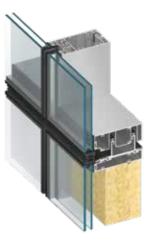
and the second division of the second





Structural Performance Test

MB-SE90 SG



The MB-SE90 SG system is a segment-based façade designed in line with the standards of the American market. The structure allows erection of all-glass façades as seen on the outside. Glass panels are fitted with structural bonding system in the SSG technology. The production technology of segments makes it possible to apply the techniques most popular in the United States and allows for integration of the wall with concrete panels. The office building Brooklyn Navy Yard, Dock 72 is the first building in the construction of which the MB-SE90 SG system is applied. This 17-story building featuring the floor are of 675,000 square feet will come with numerous amenities addressed to its users, such as specialty food vendors, a wellness center, bicycle parking racks, a viewing terrace and a basketball court.





325 Lex 9 New York

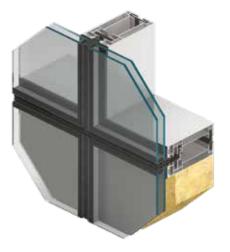


Structural Performance Test

BALCONY WINDOWS AND DOORS MB-70HI CASEMENT

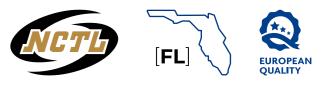






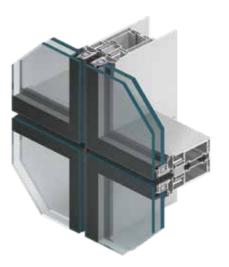
ICE Krakow Congress Centre

♥ 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 W/(m²K). 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.



Mennica LegacyTower • Warsaw





Structural Performance Test

MB-SR60N

The advantages of the MB-SR60N system are very good technical parameters, freedom it provides in terms of shaping the space and diversity elements opened for installation in the facade. In particular the version with increased thermal insulation is noteworthy MB-SR60N HI +, which uses special insulators. Available there is also a version without visible masking strips MB-SR60N EFFEKT.





SOLUTIONS FOR RESIDENTIAL BUILDINGS TESTED FOR THE MARKET OF THE USA







SLIM PROFILE WINDOW MB-SLIMLINE

With its very small-in-width aluminum profiles visible from the outside of the structure, **MB-SLIMLINE** windows allow to produce lights in two variants with visible or invisible profiles (SG) from the outside of the envelope. When invisible lights are used, the appearance of openable and fixed units is almost identical, which makes the entire structure look refined in every detail.

面

Due to the structure of external profiles, this system can also greatly style windows, made of steel profiles and maintain a similar appearance from the outside of the envelope while significantly increasing thermal performance of the partition.







SLIM PROFILE WINDOW MB-FERROLINE

MB-FERROLINE window with a thermal break is perfect for the renovation of historic buildings and helps to preserve the appropriate appearance of windows that can imitate traditional steel windows, while ensuring very good technical performance of the structure. Different styles of open-in and open-out windows and fixed windows are available. They are characterized by high resistance and very high performance in terms of water and air tightness, thermal and sound insulation.

Building on proven solutions and offering a whole range of appropriately shaped, new profiles, **MB-FERROLINE** allows to produce systems that fit the appearance of the building.







SLIDING DOOR WITH INVISIBLE FRAME MB-SKYLINE

New build or existing homes can benefit from the MB-SKYLINE SYSTEM to flood living spaces with natural light and space. The system is threshold-free and ensures a seamless indoor/outdoor connection. The slim construction with narrow profiles is lightweight and delicate, giving the impression of an almost uniform glazing, delicately divided with lines, and perfectly fits into the luxury design.

MB-SKYLINE-based sliding door provides the user with a comfortable, threshold-free passage and ensures the connection of indoor and out-door living spaces.



Large size of the structure

more than 19 feet wide





Structural Performance Test

LIFT & SLIDE DOOR SYSTEM MB-77HS

Glazed walls look extremely elegant, modern and give the interior its unique character while making it brighter and bigger. On the ground floor of the family house, it will allow to watch the garden change with the seasons. At higher floors, the occupants can enjoy panoramic views on the city or on the surrounding areas. It's a solution for the living room or bedroom that can also connect the home space with terrace or balcony.



An unobstructed view

of your outdoor living space



Structural Performance Test

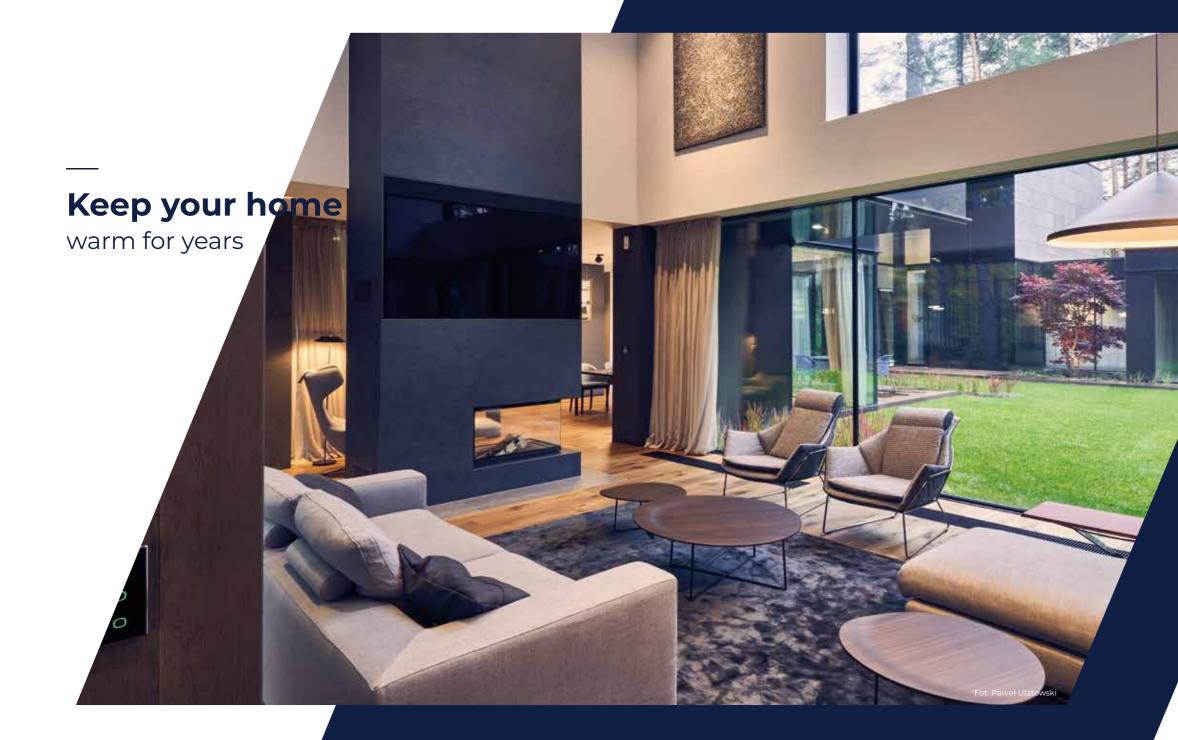
LIFT & SLIDE DOOR/CORNER SYSTEM MB-77HS

Lift & Slide Door/Corner system is the perfect integrating element that connects rooms or conservatories with outdoor spaces. It provides a convenient exit from the balcony, terrace or garden. Another advantage of the **MB-77HS** system is that it makes the natural environment a part of your daily experience and, when in open position, it does not take up space inside the room for even greater comfort of use.

With its first class performance, **MB-77HS** system meets all the requirements for this product family. The system allows to manufacture exclusive, largesized doors with double or triple glazing units, while the materials and the used technical solutions help to achieve a high degree of thermal and noise protection.









MB-86/MB-86NSI

Highly resistant profiles of the MB-86 / MB-86N SI Series allow to produce large size, heavy constructions while the wide range of profiles guarantees the desired aesthetics and resistance. Our wide range of glass options allows to use all common types of triple glazing, sound insulating or burglar-resistant units. There is also a version of the windows witha hidden sash MB-86US.



An innovative

window and door system







Structural Performance Test Acoustic Tested

WINDOW & DOOR SYSTEM MB-70 & MB-70HI

MB-70 is a window and door system with very good parameters, giving the opportunity to meet the various needs of users. On the basis of the MB-70, it is possible to build high-rise structures thermal insulation MB-70HI and windows tilting to the outside MB-70 Casement.





1300 88

200 8

LEE

BE

IDORTO TREASE KOOKBO

hourses.

VERSONAL PROPERTY. BECENTERINE COLUMN

Constantanten 38

TTTREBURNETTE DIM DI COMO D

I FORTHER FOR 1111000

I'SCOUTGERSERS TH



SECURITY FOR BUILDINGS WITH SOLUTIONS BY ALUPROF





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.









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

WINDOW & DOOR SYSTEM MB-45



A ST CAT WAR

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.







ALUPROF SYSTEM USA, INC 1225 Franklin Ave, Suite 325, Garden City, New York 11530, USA tel. +1 212 687 0300



www.aluprof.com/us