

LET'S BUILD A BETTER FUTURE

 **FIRE RATED AND SMOKE EXHAUST SYSTEMS**

## FIRE-RATED, SMOKE-TIGHT & SMOKE EXHAUST SYSTEMS BY ALUPROF

A wide range of systems offered by Aluprof allows for fabrication of a variety of structural elements that are responsible for "fire protection zones" in buildings, and provide appropriate conditions for evacuation of their occupants. These solutions include products linked to window & door systems, extending to a typical "stick assembly" curtain wall system solution. The fire resistance performance of these solutions, depending on the project requirements, is available in a variety of classes, from EI 15 to EI 120 for vertical assemblies, and achieves a class of REI30 / RE45 for roofs.

Aluprof's products that ensure safety of buildings' users in the event of a fire include internal partition walls with doors MB-45EW (EW30), internal & external partition walls with doors MB-78EI (EI15 to EI90), internal partition walls with doors MB-60E EI (EI15, EI30), automatic

sliding doors MB-78EI DPA (EI15 to EI30), external partition walls, windows and doors MB-86EI (EI30), fire-rated walls MB-118EI (EI120), fire-rated facades MB-SR50N EI (EI30, EI60) and MB-SR50N EI EFEKT (EI30, EI60), glazed fire roofs (RE20, RE30, REI20, REI30), smoke control doors MB-45D (Sa, S200 [Sm]) and smoke exhaust windows & vents.

An important feature of the ALUPROF fire-rated solutions is their ability to interface with each other, one system to the next, whilst maintaining the necessary fire resistance. This is demonstrated with the integration of the MB-78EI door into a facade, enabling the whole structure to achieve a EI 30 or EI 60 class performance.

All products featured in this publication have been successfully tested in laboratories & research institutes in Europe.



**Gain valuable time!**

# TECHNICAL REQUIREMENTS AS TO FIRE-RESISTING CONSTRUCTIONS IN BUILDINGS.

In accordance with the requirements of the building regulations as to buildings and their location, fire-resisting door and windows that are to be installed in the openings of vertical separating elements in a building should be designed and constructed in such a way, that in case of fire:

- prevent fire from spreading
- limit the spread of fire and smoke in the building to other rooms and zones,
- limit the spread of fire to other buildings,
- allow the evacuation of building occupants by limiting the level of heat radiation,
- ensure safety and facilitate the operation of emergency crews

The required fire resistance rating for partitions is determined by the provisions in force in the respective countries, and can be dependent on the fire resistance class, to which the building is suited.



Gain valuable time!

# CLASSIFICATION OF FIRE RESISTANCE CONSTRUCTIONS.

## E – INTEGRITY

- no flames
- no smoke
- high temperature

Integrity (E) is the ability of a component or construction to maintain the integrity of the element on one side only, without spreading the fire to a non-heated side as a result of penetration of flames or hot gases.



## EW – INTEGRITY AND RADIATION REDUCTION

- no flames
- no smoke
- lower thermal radiation

Reduction of radiation (W) is the ability of a component or construction to maintain the integrity of the element on one side only, to reduce the likelihood of fire spreading that may result from significant thermal radiation or through an element, or from its non-heated surface to adjacent materials.



## EI – INTEGRITY AND INSULATION

- no flames
- no smoke
- high temperature insulation

Insulation (I) is the ability of a component or construction to maintain the integrity of the element on one side only, without spreading the fire as a result of a significant heat flow from a heated side to a non-heated side. During the fire, the construction on the non-heated side reaches a temperature of not more than +140°C up to +180 °C.



All the above-mentioned parameters are given in minutes. The number after a given symbol gives the laboratory time from starting of a fire, in which a parameter is maintained.

# Research and Development, Testing, Certification

Aluprof S.A. strives to continuously improve the quality of its products. The company's quality management system meets the requirements of standards EN ISO 9001 / EN ISO 14001, which has been confirmed by the inspection body TÜV NORD. The products offered by Aluprof meet all the requirements of the European standards as to the quality of alloys, tolerance and resistance characteristics. The company cooperates with many European research centres and building research laboratories, also specializing in the fire-resisting constructions: Building Research Institute (Poland), IFT Rosenheim (Germany), Warrington Certificate Exova (Great Britain), UBAtc (Belgium), Fires Institute (Slovakia), ÉMI Institute (Hungary) Incerc Institute (Romania), Efectis Institute (Netherlands), and others. The cooperation involves fire testing and reviews of the company's documents (reports and classifications). These documents enable ALUPROF systems-based products to be applied in fire-resisting constructions throughout Europe and beyond.



# Examples of documents issued for ALUPROF systems-based fire-resisting constructions

**Instytut Techniki Budowlanej**  
Research and development work, Accredited Group of Laboratories  
Notified Body N° 1485 (2014), member: Certified Management System ISO 9001, ISO 27001

### EXTENDED APPLICATION REPORT FOR FIRE RESISTANCE

Order No: 01030/RA/2019PZ  
Owner of this report: ALUPROF S.A., ul. Warszawska 153, 43-300 Bielsko-Biala, Poland  
Prepared by: Fire Research Department, Building Research Institute, ul. Koszarowa 35, PL 02-460 Warsaw  
Name of product: Aluminum framed, glazed doors of ALUPROF MB 780 E30 system  
Report No: 01030.100/RA/2019PZ/ENG  
Issue number: 1  
Date of issue: 2020.03.30

This extended application report concerns test results obtained in accordance with Test Method EN 1634-1:2014+A1:2016. Fire resistance and smoke control tests for door and shutter assemblies, operable windows and elements of building hardware. Part 1: Fire resistance test for door and shutter assemblies and operable windows.

The extended application process is carried out in conformity with the following extended application document:  
EN 1628-6:2014+A1:2016. Extended application of test results for fire resistance and/or smoke control for door, shutter and operable window assemblies, including their elements of building hardware - Part 6: Fire resistance of impact and protected metal frame glazed doors and operable windows.

**Instytut Techniki Budowlanej**  
Research and development work, Accredited Group of Laboratories  
Notified Body N° 1485 (2014), member: Certified Management System ISO 9001, ISO 27001

### EXTENDED APPLICATION REPORT FOR FIRE RESISTANCE

Order No: 1006/20/RA/2020PZ  
Owner of this report: ALUPROF S.A., ul. Warszawska 153, 43-300 Bielsko-Biala, Poland  
Prepared by: Fire Research Department, Building Research Institute, ul. Koszarowa 35, PL 02-460 Warsaw  
Name of product: Aluminum framed doors of ALUPROF MB 780 E30 system  
Report No: 1006.100/RA/2020PZ/ENG  
Issue number: 1  
Date of issue: 2020.09.22

This extended application report concerns test results obtained in accordance with Test Method EN 1634-1:2014+A1:2016. Fire resistance and smoke control tests for door and shutter assemblies, operable windows and elements of building hardware. Part 1: Fire resistance test for door and shutter assemblies and operable windows.

The extended application process is carried out in conformity with the following extended application document:  
EN 1628-6:2014+A1:2016. Extended application of test results for fire resistance and/or smoke control for door, shutter and operable window assemblies, including their elements of building hardware - Part 6: Fire resistance of impact and protected metal frame glazed doors and operable windows.

**Instytut Techniki Budowlanej**  
Research and development work, Accredited Group of Laboratories  
Notified Body N° 1485 (2014), member: Certified Management System ISO 9001, ISO 27001

### CLASSIFICATION OF FIRE RESISTANCE IN ACCORDANCE WITH EN 13501-2:2016

Order No: 1006/20/RA/2020PZ  
Owner of this report: ALUPROF S.A., ul. Warszawska 153, 43-300 Bielsko-Biala, Poland  
Prepared by: Fire Research Department, Building Research Institute, ul. Koszarowa 35, PL 02-460 Warsaw  
Name of product: Aluminum, profiled doors of ALUPROF MB 800 E30 system  
Classification Report No.: 1006/20/RA/2020PZ/ENG  
Issue number: 1  
Date of issue: 2020.05.24

This classification report consists of 16 pages and may only be used or reproduced in its entirety.

**Instytut Techniki Budowlanej**  
Research and development work, Accredited Group of Laboratories  
Notified Body N° 1485 (2014), member: Certified Management System ISO 9001, ISO 27001

Warsaw, 2017-04-05

Aluprof S.A., ul. Warszawska 153, 43-300 Bielsko-Biala

Work No 1036.13/14/RA/2019PZ/1

### Classification of fire resistance of Aluprof S.A. curtain walls in full configuration and panel walls of Aluprof MB-SR50 EI ERSK and Aluprof MB-SR50 EI ERSK systems

1. Formal bases  
1.1 Order of Aluprof S.A.  
1.2 Annex to Statement agreement No 01036/14/RA/2019PZ

2. Technical bases  
2.1. Codes  
2.1.1. PN-EN 13501-2:2016-07 Klasyfikacja ogniowa wyrobów budowlanych i elementów budowlanych - Część 2. Klasyfikacja na podstawie badań odpowiednich ogniotrwałych i wytrzymałościowych (testing) wyrobów budowlanych  
[opp. of EN 13501-2:2016 Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services]  
2.1.2. PN-EN 13501-1+A1:2016 Klasyfikacja ogniowa wyrobów budowlanych i elementów budowlanych - Część 1. Klasyfikacja na podstawie wyrobów budowlanych i elementów budowlanych  
[opp. of EN 13501-1+A1:2016 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests]  
2.1.3. PN-EN 1364-3:2014-03 Badania odporności ogniowej elementów wewnętrznych. Część 3. Sceny ognienne. Próby konfiguracji (Scenarystyka ogień)  
[opp. of EN 1364-3:2014 Fire resistance tests for non-loadbearing elements - Part 3: Curtain walling - Full configuration (complete assembly)]  
2.1.4. PN-EN 1363-1:2001 Badania odporności ogniowej - Część 1. Wymagania ogólne.  
[opp. of EN 1363-1:2001 Fire resistance tests - Part 1: General requirements]

**Instytut Techniki Budowlanej**  
Research and development work, Accredited Group of Laboratories  
Notified Body N° 1485 (2014), member: Certified Management System ISO 9001, ISO 27001

### European Technical Assessment ETA-21/0516 of 30/06/2021

General Part  
Technical Assessment Body issuing the European Technical Assessment: Instytut Techniki Budowlanej  
Trade name of the construction product: ALUPROF MB 780E3  
Product family to which the construction product belongs: Internal Partition K3 for use as non-load bearing walls  
Manufacturer: ALUPROF S.A., ul. Warszawska 153, 43-300 Bielsko-Biala, Poland  
Manufacturing plant: ALUPROF S.A., ul. Warszawska 153, 43-300 Bielsko-Biala, Poland  
This European Technical Assessment is based in accordance with regulation (EU) No 305/2011, on the basis of:  
This European Technical Assessment is based in accordance with regulation (EU) No 305/2011, on the basis of:  
European Assessment Document EAD 20003-01-0001: Internal partition K3 for use as non-loadbearing walls

**certifire**  
CERTIFICATE OF APPROVAL No CF 5138  
100 Central Road, London E15 2JF, United Kingdom  
Tel: +44 (0)20 7424 2000

ALUPROF S.A.  
ul. Warszawska 153, 43-300 Bielsko-Biala, Poland  
Tel: +48 33 891 83 00

CERTIFIED PRODUCT: Aluminum Finishing Systems Type MB 78 EI for Glazed Walls and Doors  
TECHNICAL SCHEDULE: T525 Fire Resistant Glass, Glazing Systems and Materials

Signet and issued for and on behalf of CERTIFIRE  
Sir Alan Knight, Chairman - Management Group  
Page 1 of 2  
Issue 4<sup>th</sup> April 2013  
Valid to 3<sup>rd</sup> April 2018

**efectis**  
Via Bonaria 4, 00197 Roma, Italy  
Tel: +39 06 5749 1111  
Fax: +39 06 5749 1118

### PROCES-VERBAL DE CLASSEMENT A' EPR-16-00137

Nominale in Rete Nazionale di Certificazione per l'Edilizia in Italia da parte del ministero dell'Interno al 23 marzo 2016

Objet: Ce procès-verbal de classement et de classement extensives sont valables à compter du 04/04/2021.

Approuvé/Validé de l'organisme de référence: EPR-16-00137 A  
EPR-16-00137 B

Constaté: Une classe additionnelle a été ajoutée au classement.

Visé/Approved: L'organisme d'agrément EPR-16-00137 a été agréé par le ministère de l'Intérieur le 23/03/2016.  
Approved/Validated: The EPR-16-00137 approval body was approved by the Ministry of the Interior on 23/03/2016.

Designé/Designated: PROCEVERBAL 113, ALUPROF S.A., ul. Warszawska 153, 43-300 Bielsko-Biala, PL 02-460 Warsaw

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**IBS** Institut für Brandschutztechnik und Sachschadenforschung

### NATIONALER ANHANG FÜR ÖSTERREICH BEWERTUNG FÜR DIE VERWENDBARKEIT

Verwendbarkeitsnummer Nr.: VWN-31612105-A-Rev3  
datenhöhere Klassifizierung Nr.: 31612105-A-Rev3 vom 01.10.2020

Auftraggeber: Aluprof S.A.  
Produktlinie: Dreiflügeliger  
Systembezeichnung: „MB-78E1 E30“ ein- und zweiflügelige Türen (E3, 30-C)  
Ausgabedatum VWN: 02.11.2020  
Datum Erstattungsbericht: 12.09.2017

**A. Allgemeines**  
Dieser nationale Anhang für Österreich ist nur zusammen mit dem Hauptteil dieses Dokumentes „Anforderungsbericht Nr. 31612105-A-Rev3, Seite 1 bis Seite 26, für das System „MB-78E1 E30“ ein- und zweiflügelige Türen verwendbar.

Zusätzliche Prüf- und Klassifizierungsanforderungen:  
ONORM B 3850: 2006-01-01 zusammenfassend: Rauchschuttschläuse - und -tore, Ein- und zweiflügelige Dreiflügeligen und -tore\*  
ONORM B 3850: 2014-04-01 / Feuerstutzschläuse - Dreiflügeligen und -tore sowie Pendeltüren, Anfordertüren und Prüfungen für ein- und zweiflügelige Elemente\*  
ONORM B 3850: 2004-01-01 zusammenfassend: Rauchschuttschläuse - Dreiflügeligen, Pendeltüren und -tore, Ein- und zweiflügelige Ausdrücker\*  
ONORM B 3851: 2014-07-15 Rauchschuttschläuse - Dreiflügeligen, Pendeltüren und -tore, Anfordertüren und Prüfungen für ein- und zweiflügelige Elemente\*

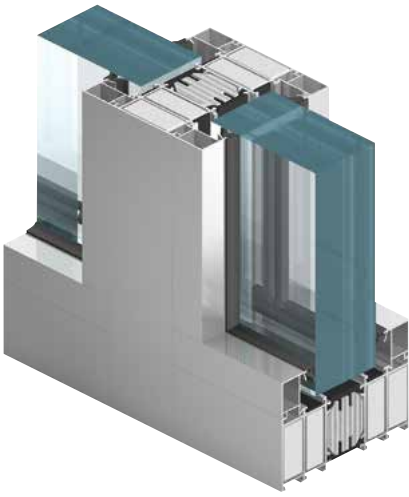
**UBAIC** Union Belge des Associations de Constructeurs  
1000 Bruxelles, Belgium  
Tel: +32 (0)2 735 11 11  
Fax: +32 (0)2 735 11 12  
Web: www.ubaic.be

### Agrement Technique ATG avec Certification

Systeme de portes et de fenêtres Escalier en aluminium à coupe horizontale et/ou verticale  
Aluprof MB 780 E30  
Valeurs d'U: 03/05/2016 ou 02/05/2021

Objet de l'agrément: Aluprof S.A., ul. Warszawska 153, 43-300 Bielsko-Biala, Poland  
Tel: +48 33 891 83 00  
Fax: +48 33 891 83 02  
Web: www.aluprof.eu  
E-mail: info@aluprof.eu

1. Objet et portée de l'agrément  
Technique  
Cet agrément technique concerne une destination spécifique de produits de la gamme MB 780 E30 destinés à être utilisés en tant que portes et fenêtres en aluminium à coupe horizontale et/ou verticale. L'agrément technique concerne les produits de la gamme MB 780 E30 destinés à être utilisés en tant que portes et fenêtres en aluminium à coupe horizontale et/ou verticale. L'agrément technique concerne les produits de la gamme MB 780 E30 destinés à être utilisés en tant que portes et fenêtres en aluminium à coupe horizontale et/ou verticale. L'agrément technique concerne les produits de la gamme MB 780 E30 destinés à être utilisés en tant que portes et fenêtres en aluminium à coupe horizontale et/ou verticale.



## FIRE RATED PARTITION WALLS

# MB-118EI

The MB-118 EI fire rated walls are used to make fire partitions with fire resistance class of EI 120. The system is classified as non-fire spreading (NRO). It's design & construction is such that, it provides a technical connection with the MB-78EI door, which means a number of common components (such as glazing beads, cooling inserts, expanding tapes, seals and most accessories) and also similar to the basic system, production and installation technology.

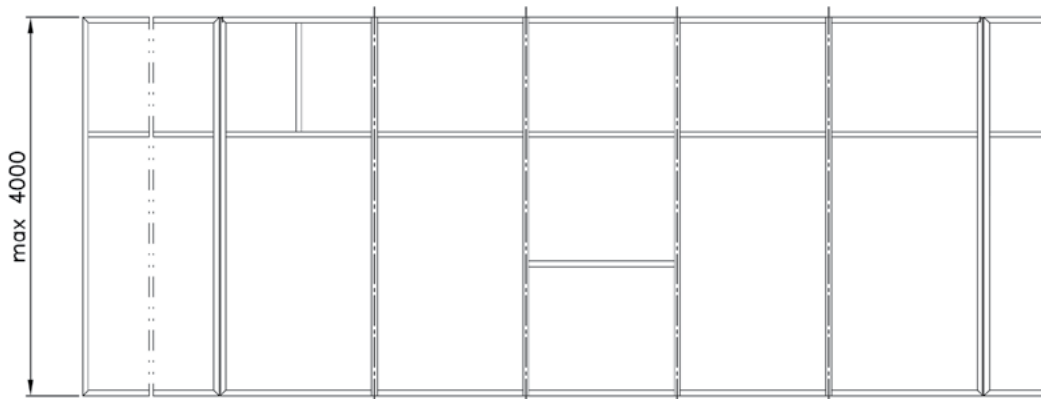
The MB-118EI system has been developed on the basis of a five chamber insulated aluminium profile, with a front to back depth of 118 mm. The inner chamber profiles, as well as insulating space between them, are filled with fire insulation elements. On the outer surfaces there are expanding tapes which are additionally mounted, and the whole structure is completed by steel accessories components, joining both sides of the profiles. The MB-118EI system can accommodate infills of a thickness 31-84 mm. This system can also be the basis for constructions in EI 30 or EI 60 classes, in which, due to high thermal or acoustic requirements, triple glazing units must be used.

Thanks to its symmetrical composition, the structures that are made of it remain fire resistant in EI 120 class, both exposed to fire from the outside and the inside. An important feature affecting the functionality of these fire partitions is the possibility to install the MB-78EI doors.

EI 120

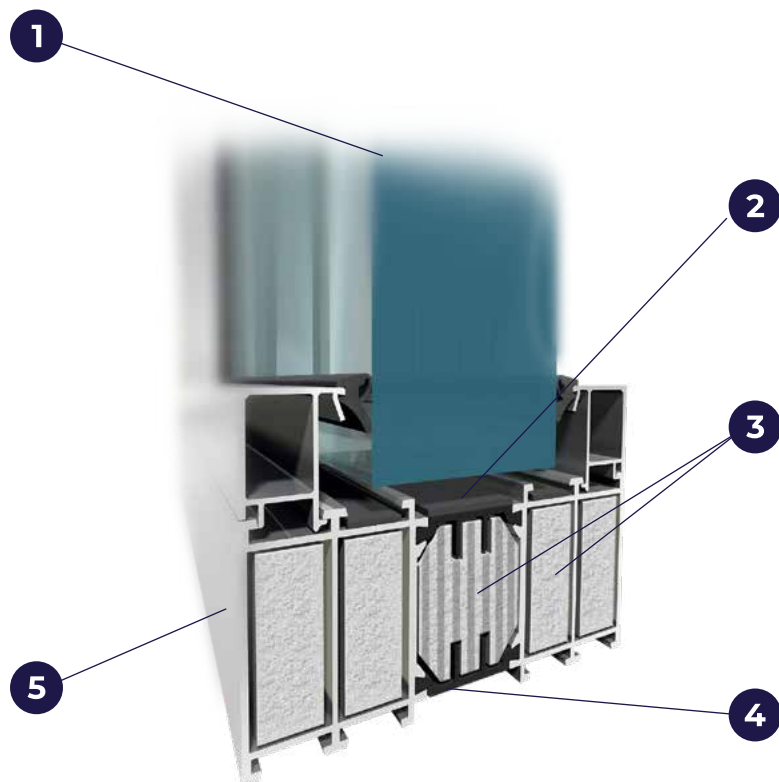


Max. dimensions of the walls



TECHNICAL SPECIFICATION		TECHNICAL PARAMETERS	
Depth of wall frame	118 mm	Fire resistance	Class EI 120, EN 13501-2
Glazing range	54 mm		





- 1 Single or double (sealed unit) fire resistant glasses, of a thickness to 84 mm.
- 2 Steel accessories and expanding tapes that protect the structure from high temperatures
- 3 GKF or CI type fire protection infills inside the profiles allowing to obtain EI120 class
- 4 Profiled thermal break that provides adequate protection against heat loss
- 5 5-chamber, symmetrical design, where fire resistance is maintained regardless the side of the fire

**INSTYTUT TECHNIKI BUDOWLANEJ**  
PL 00-611 WARSZAWA  
ul. Polna 1  
tel.: (+48 22) 625-04 71  
fax: (+48 22) 625-76 68  
www.itb.pl

Member of  
**E.T.A.**  
www.eta.eu

**European Technical Assessment**

**ETA-20/0890**  
of 12/01/2021

**General Part**  
Technical Assessment Body issuing the European Technical Assessment: Instytut Techniki Budowlanej

**Trade name of the construction product:** ALUPROF MB-118EI EI120

**Product family to which the construction product belongs:** Internal Partition Kit for use as non-load bearing walls

**Manufacturer:** ALUPROF S.A., ul. Warszawska 153, 43-300 Bielko-Biala, Poland

**Manufacturing plant:** ALUPROF S.A., ul. Warszawska 153, 43-300 Bielko-Biala, Poland

**This European Technical Assessment contains:** 23 pages including 3 Annexes which form an integral part of the Assessment

**This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of:** European Assessment Document EAD 210025-00-0505 "Internal partition kits for use as non-loadbearing walls"

**Instytut Techniki Budowlanej**  
Research and development works | Accredited Group of Laboratories |  
Notified Body N° 1488 | EOTA member | Certified management systems ISO 9001, ISO 27001

**CLASSIFICATION OF FIRE RESISTANCE**  
IN ACCORDANCE WITH EN 13501-2:2016

**Order No.:** 1036/19/R419NZP

**Owner of this report:** ALUPROF S.A., ul. Warszawska 153, 43-300 Bielko-Biala, Poland

**Prepared by:** Fire Research Department, Building Research Institute, 21, Ksawerów St., PL 02-656 Warsaw

**Name of product:** Aluminium framed partition of ALUPROF MB-118EI system

**Classification Report No.:** 1036/19/R409NZP/ENG

**Issue number:** 1

**Date of issue:** 2019.11.25

This classification report consists of 7 pages and may only be used or reproduced in its entirety.

The MB-118EI system holds an ITB's Classification No. 1036/19/ and European Technical Assessment No ETA-20/0890



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ALUMINIUM SYSTEMS

**ALUPROF SA Plant in Bielsko-Biala**, ul. Warszawska 153, 43-300 Bielsko-Biala, Poland,  
tel. +48 33 81 95 300, fax +48 33 82 20 512, e-mail: [aluprof@aluprof.eu](mailto:aluprof@aluprof.eu)

**ALUPROF UK LTD**, tel. +44 161 941 4005, e-mail: [info@aluprof.co.uk](mailto:info@aluprof.co.uk)

**ALUPROF DEUTSCHLAND GMBH**, tel. 0421 898189-20, e-mail: [Kontakt@aluprof-deutschland.com](mailto:Kontakt@aluprof-deutschland.com)

**ALUPROF SYSTEMA UKRAINA OOO**, tel. +380 444 944 784, e-mail: [torg@aluprof.com.ua](mailto:torg@aluprof.com.ua)

**ALUPROF HUNGARY KFT**, tel. +36 27 542 600, e-mail: [hungary@aluprof.eu](mailto:hungary@aluprof.eu)

**ALUPROF SYSTEM ROMANIA SRL**, tel. + 40 374 004 594, e-mail: [romania@aluprof.eu](mailto:romania@aluprof.eu)

**ALUPROF SYSTEM CZECH SRO**, tel. +420 595 136 633, e-mail: [czech@aluprof.eu](mailto:czech@aluprof.eu)

**ALUPROF NETHERLANDS B.V.**, tel. +31 (0) 681 140 029, e-mail: [info@aluprof-nederland.nl](mailto:info@aluprof-nederland.nl)

**ALUPROF BELGIUM**, tel. +32 52 25 81 10, e-mail: [belgium@aluprof.eu](mailto:belgium@aluprof.eu)

**ALUPROF USA, LLC**, tel. 1 212 687 0300, e-mail: [info@aluprofusa.com](mailto:info@aluprofusa.com)