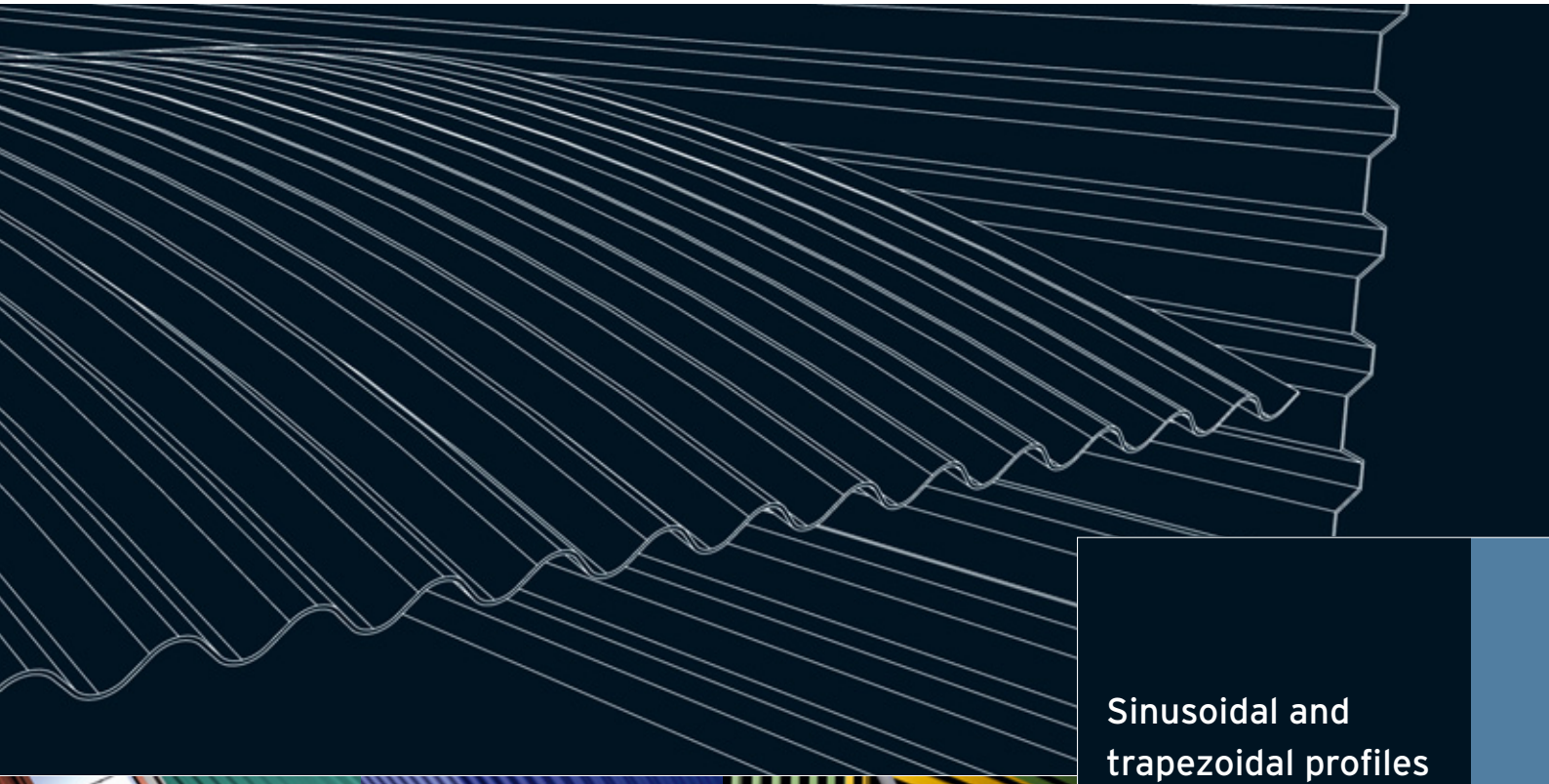
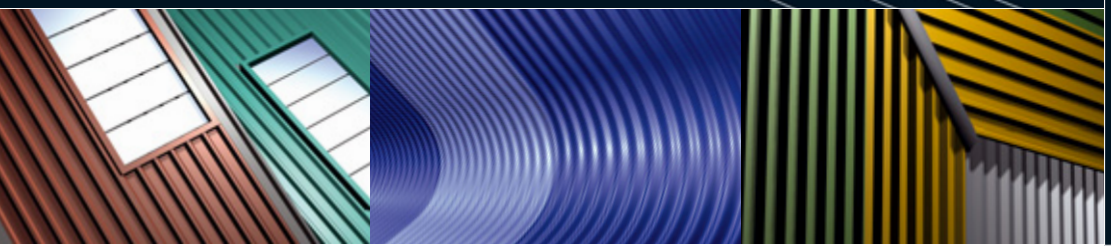
Aluform
SYSTEME



Sinusoidal and trapezoidal profiles



flexible building.
sustainable thinking.

Sinusoidal and trapezoidal aluminium profiles open up a wide range for resource friendly architectural design rich in form and colour

Hall of residence, Wuppertal
Sinusoidal profile, Aluform 18/76

Iberg Dripstone Cave, Bad Grund
Sinusoidal profile, Aluform 18/76

Industrial hall
Sinusoidal profile, Aluform 18/76

Aluminium – a unique material in the architecture

Aluminium is a fascinating and very universal building material for facades, ceilings and roofs. Moreover, the following aspects speak in favour of the preferred application in the old building and of the modern architecture

- the low mass and high stability,
- the resistance to weathering and corrosion,
- the high heat reflectance,
- maintenance free and long service life,
- the creative variety and aesthetics of the material.

ALUFORM has been producing aluminium profile systems for more than 40 years, develops them constantly and always corresponds with the state-of-the-art technology. Not without pride, the company looks back on a produced area of more than 100 millions m^2 for roof and wall panelling.

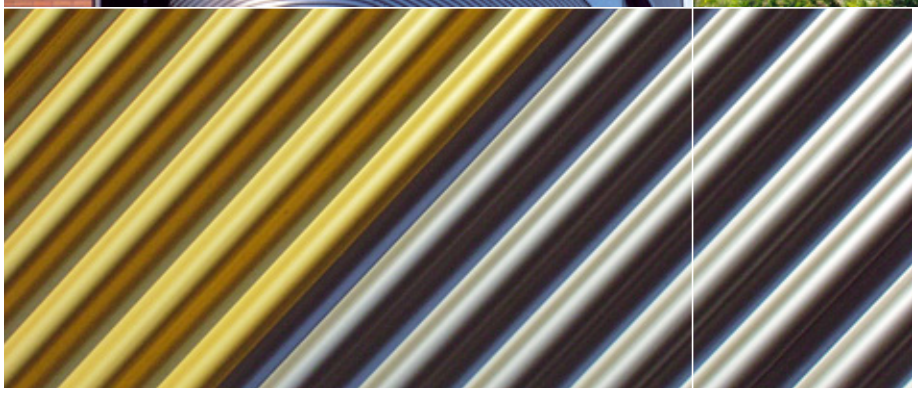
Sinusoidal and trapezoidal aluminium profiles offer a unique variety for individual architectural design to every architect and builder. Building facades, ceilings and roofs can be put in the spotlight concerning flat structures and unlimited variety of colours. The material Aluminium and the high quality of the surface finishing guarantee a long-lasting aesthetic effect and high colour constancy. Additionally, there is a wide selection of sinusoidal and trapezoidal profiles with mill finish smooth or stucco embossed surfaces as well as roll-shaped profiles with coil anodised aluminium.

Application areas for ALUFORM systems
Sinusoidal and trapezoidal aluminium profiles are particularly suitable for single-layer or multi-layered wall and roof constructions in industrial, public and agricultural buildings.

Surface-coated aluminium profiles offer various application possibilities for the design of facades, roofs and ceilings

Remo-Invest office building, Brussels
Sinusoidal profile, Aluform 18/76

Verbeelding Zeewolde Art Pavilion
Sinusoidal profile, Aluform 18/76



HCI Nieuwegein Industrial Building
Sinusoidal profile, Aluform 18/76

Should aluminium surfaces be bright, stucco embossed or lacquered?
The choice is yours!

By means of the reaction with oxygen, a dense oxide layer is formed on the aluminium surfaces. It protects the material from aggressive weather effects. Therefore, Aluform systems of sinusoidal and trapezoidal profiles can be applied as mill finish smooth or stucco embossed surface for facades and roofs. Changes of colour, gloss and surface finish caused by the weather may affect the aesthetic impression and exclude a satisfactory cleaning.

There are many advantages to the use of coloured surface refinement.

Coloured aluminium profiles offer various possibilities of the architectural impact for coated facades and roofing. Colour coatings with Polyester or Polyvinylidene Fluoride (PVdF) guarantee a high colour brilliance and successful facade cleaning for a long time.

With the variety of metallic colours ALUFORM offers almost unlimited possibilities of the colour variations and the metallic gloss of aluminium surfaces. Architects and builders can let their ideas flow in combination with the ALUFORM sinusoidal and trapezoidal profiles.

ALUFORM standard colours

Mill finish smooth		
Mill finish stucco embossed		
6 standard colours of double-layer polyester lacquer		
Sheet thickness	0.7	mm
Layer thickness, visible side	approx. 25	µm
Degree of gloss	35	GU
Protective paint, rear side	3	µm

1 standard colour of double-layer PVdF lacquer (metallic)		
Sheet thickness	0.8	mm
Layer thickness, visible side	approx. 25	µm
Degree of gloss	35	GU
Protective paint, rear side	3	µm

Examples for ALUFORM standard colours see the brochure No. 750 „Coloured Surface Finish of Aluminium Profiles“.

Functional anti-condensation and anti-drum coatings extend the application range of sinusoidal and trapezoidal aluminium profiles

Studio Almere
Trapezoidal profile, Aluform 45/150

Power station, Boxberg
Trapezoidal profile, Aluform 45/150

Wasserwohnungen, Ijburg
Trapezoidal profile, Aluform 29/124

Special ALUFORM colours

Sinusoidal and trapezoidal aluminium profiles in special colours open up new creative scopes. Surface structure and colouring stand for the modern and very individual aesthetics of the architectural design.

ANTI-CONDENSATION COATING

In order to prevent a dropping of condensate in case of cold roof constructions, there is a possibility to provide aluminium profiled panels with an anti-condensation coating. For detailed information about profiles with anti-condensation coating see the brochure No. 010 „Anti-condensation coating".

ANTI-DRUM COATING

To reduce drone sounds (noise, rainfall, hail) aluminium profiles can additionally be coated with an anti-drone agent. For detailed information about profiles with anti-drum coating see the brochure No. 011 „Anti-drum coating".

PERFORATED PROFILES

All profiles can also be delivered in perforated version, according to the standard in the hole pattern R_V 3 – 5 and R_V 5 – 8. More hole patterns on request.
For detailed information about perforated profiles see the brochure No. 760 „Perforated profiles".

ALUFORM accessories programme for roof, ceiling and facade systems

We deliver a wide range of accessories for the assembly of our ALUFORM systems, consisting of

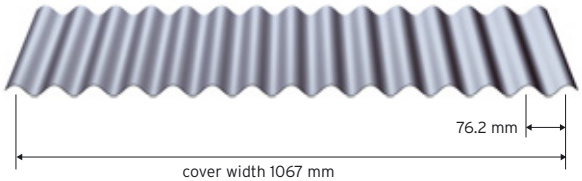
- Connecting means
- Flashings
- Ventilation ridges
- Pipe collars for cable bushing
- Sealing tapes
- Snow guard

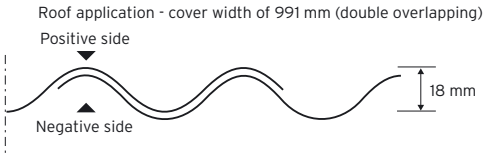
Please ask for our detailed accessories catalogue for this!

Approval: all products are subject to a regular quality control (external as well as internal control) and are regulated by the DIBT and DIN standards.

Product Overview: Sinusoidal Profiles

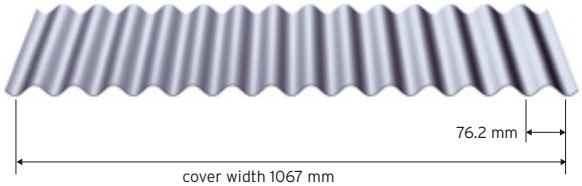
Sinusoidal profile, Aluform 18/76, for roof and wall applications





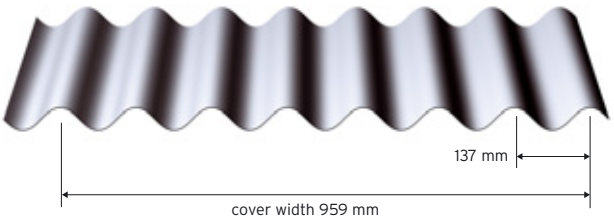
Other cover widths on request.

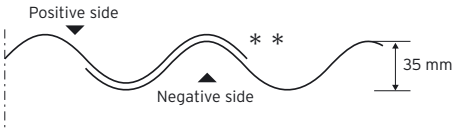
Sinusoidal profile, Aluform 18/76, only for wall application



Sheet thickness t_N (mm)	Weight (kg/m²)
0.50*	1.66
0.60*	1.99
0.70	2.24
0.80	2.56
1.00	3.21
1.20	3.85

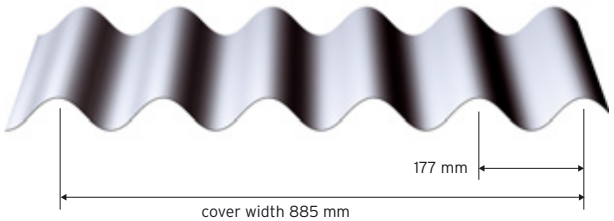
Sinusoidal profile, Aluform 35/137, for roof and wall applications

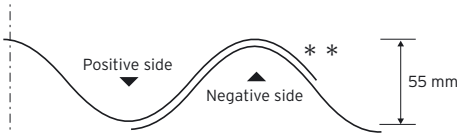




Sheet thickness t_N (mm)	Weight (kg/m²)
0.70	2.50
0.80	2.85
1.00	3.57
1.20	4.28

Sinusoidal profile, Aluform 55/177, for roof and wall applications





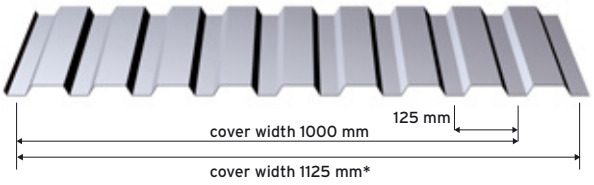
Sheet thickness t_N (mm)	Weight (kg/m²)
0.70	2.71
0.80	3.09
1.00	3.86
1.20	4.64

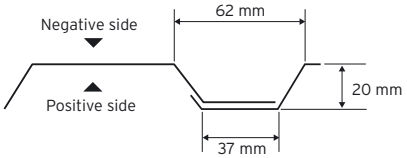
*Extended side lap „support leg design“ for thickness 0.5 and 0.6 mm, making single overlapping possible; cover width is 1067 mm.

**The profile radius of the covered wave is designed so that the covering is laid in a linear manner. For this reason, special attention must be paid to the right covering during the installation.

Product Overview: Trapezoidal Profiles

Trapezoidal profile, Aluform 20/125, particularly as suspended ceiling

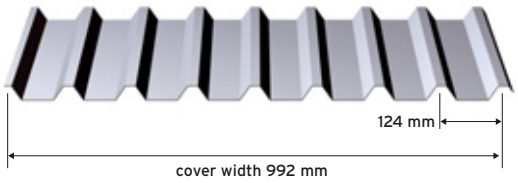


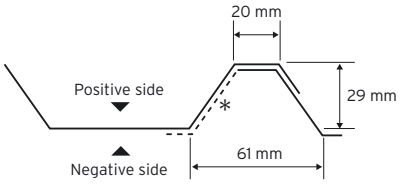


Sheet thickness t_N (mm)	Weight (kg/m²)
0.35	1.14
0.50	1.63
0.70	2.28
0.80	2.61
1.00	3.25

*Possible from the cover width of 0.7 mm

Trapezoidal profile, Aluform 29/124

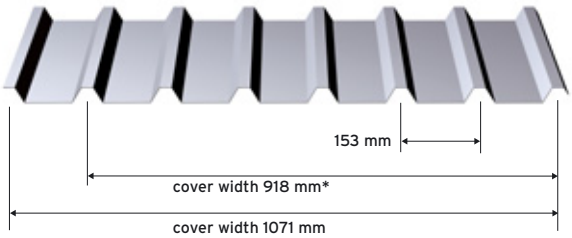


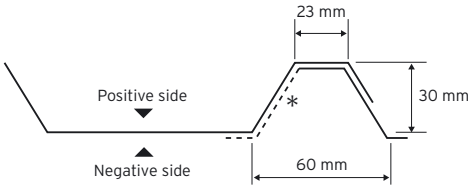


Sheet thickness t_N (mm)	Weight (kg/m²)
0.50*	1.79
0.60*	2.14
0.70	2.41
0.80	2.76
1.00	3.45
1.20	4.14

*extended side lap (support leg) for thickness 0.5 and 0.6 mm

Trapezoidal profile, Aluform 30/153

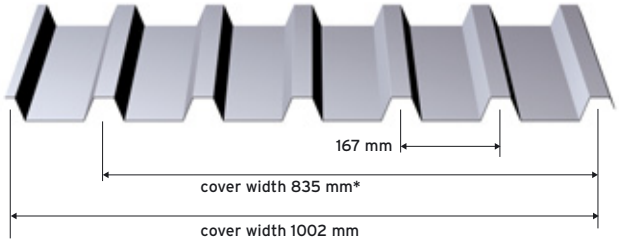


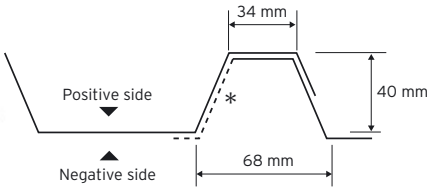


Sheet thickness t_N (mm)	Weight (kg/m²)
0.50	1.70
0.70	2.38
0.80	2.72
1.00	3.38

*„Support leg" design – possible only in case of positive type of application – Attention! Changed cover width!

Trapezoidal profile, Aluform 40/167





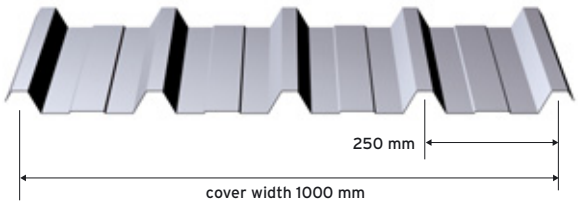
Sheet thickness t_N (mm)	Weight (kg/m²)
0.50	1.82
0.70	2.54
0.80	2.90
1.00	3.61

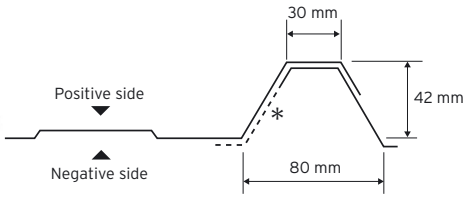
*„Support leg" design – possible only in case of positive type of application – Attention! Changed cover width!

Product Overview: Trapezoidal Profiles

Floating apartments, Ijburg
Trapezoidal profile, Aluform 29/124

Trapezoidal profile, Aluform 42/250

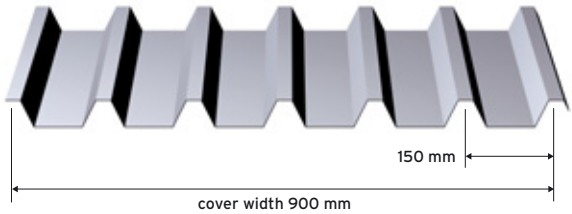


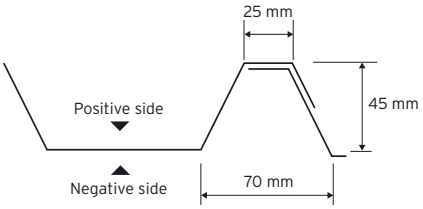


Sheet thickness t_N (mm)	Weight (kg/m²)
0.50*	1.77
0.60*	2.13
0.70	2.39
0.80	2.74
1.00	3.42
1.20	4.10

*extended side lap (support leg) for thickness 0.5 and 0.6 mm

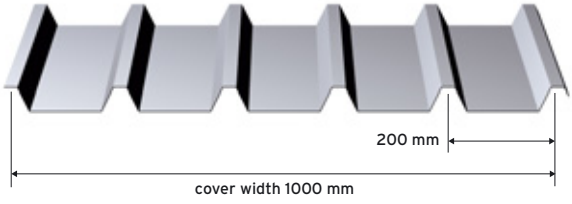
Trapezoidal profile, Aluform 45/150

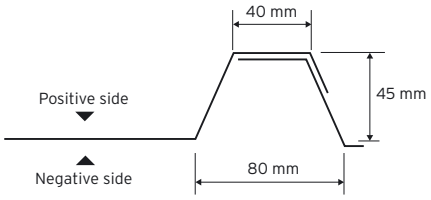




Sheet thickness t_N (mm)	Weight (kg/m²)
0.70	2.66
0.80	3.04
1.00	3.80
1.20	4.56

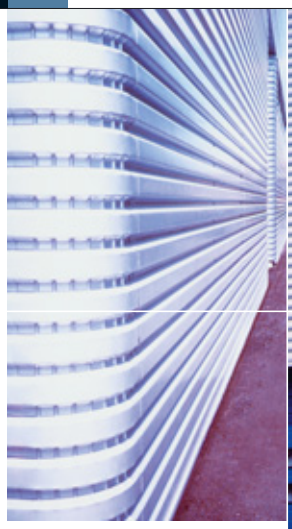
Trapezoidal profile, Aluform 45/200





Sheet thickness t_N (mm)	Weight (kg/m²)
0.70	2.55
0.80	2.91
1.00	3.62

Curved Profiled Panels



Industrial hall,
Trapezoidal profile, Aluform 45/150

VAD Bus garage, Emmeloord
Trapezoidal profile, Aluform 45/150

Curved profiled panels

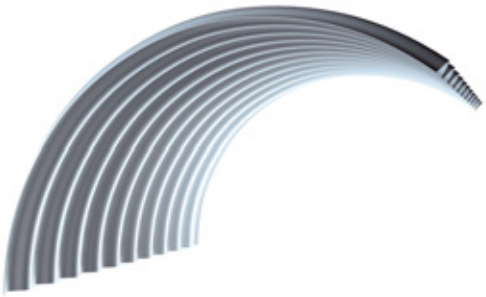
For example, for panelling of domed roofs and rounded corners of buildings.
Profiled panels can automatically be curved in two different processes.

Smooth-curved profiled panels

The process makes radii from approx. one meter possible, depending on profile form and material thickness.

The following profiled panels can be smooth curved:

Sinusoidal profiles
18/76, 35/137, 55/177



Crimp curved profiled panels

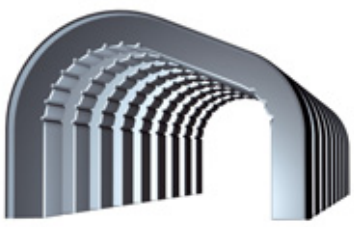
This bending process allows even smaller radii as the smooth curving.

The following profiled panels can be crimp curved:

Sinusoidal profiles
18/76, 55/177

Trapezoidal profiles
29/124, 45/150, 42/250

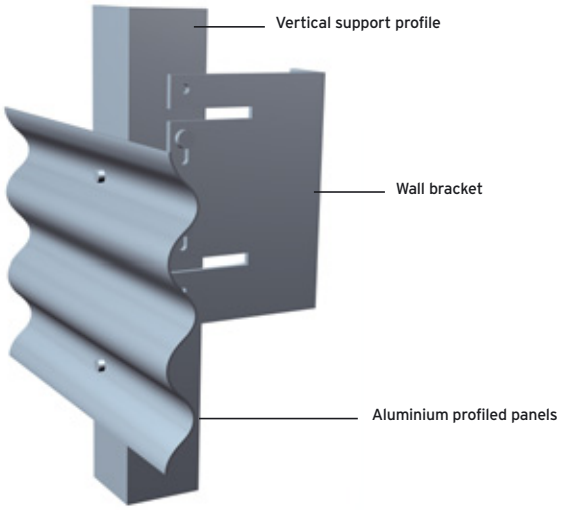
For more information see our technical folder „Planning and Application“ and under: www.aluform.com.



Schematic representation of wall mounting

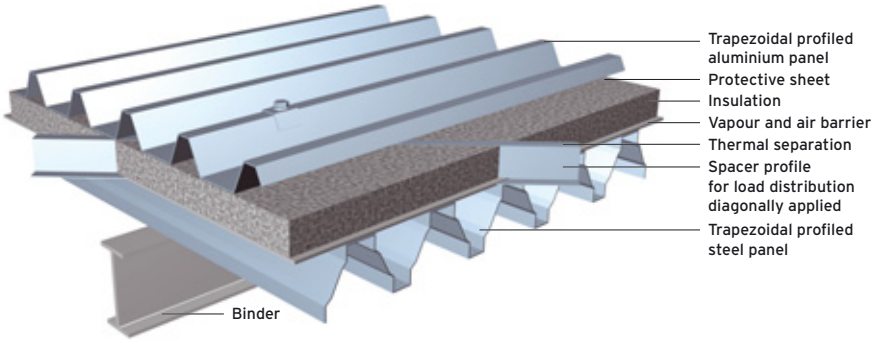
with an adjustable system substructure

Screw connection takes place by means of a stainless steel screw in the bottom chord.



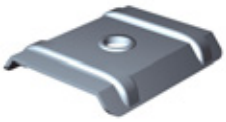
Schematic representation of roof mounting

Screw connection takes place by means of a saddle washer and a stainless steel screw on the top chord.



Saddle washer

Aluminium mill finish smooth, stucco, coated with colour, with sealing for screw connection of
- Profiled aluminium panels



For sinusoidal profiles	18/76	
	35/137	
	55/177	
For trapezoidal profiles	29/124	30/153
	45/150	40/167
	42/250	45/200

Drilling screws

made of aluminium or stainless steel with a washer for the connection of the profiled panels to the substructure or sheet to sheet connections

Sealing screws

made of stainless steel, with washer for the connection of profiled panels like sinusoidal and trapezoidal profiles on

- Steel substructure ≥ 2 mm in St 37
- Aluminium substructure ≥ 2.5 mm

Sealing screws

made of stainless steel, with washer for the connection of profiled panels like sinusoidal and trapezoidal profiles on

- Wood substructure
- Steel substructure less than 2 mm in St 37*
- Aluminium substructure less then 3.0 mm *

Rivets

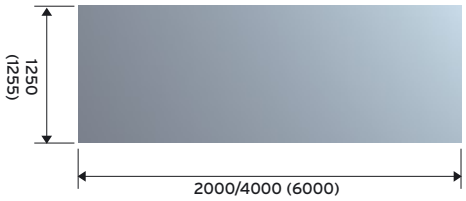
Aluminium (Al), breaking pin captively locked, stainless steel (E) for
- Longitudinal joint connection of profiled panels
- Connection of flashings

1) Blind rivet
2) Press plate blind rivet "Bulb Tite"

Flashings and flat sheets

applicable to all profile types according to the list of accessories or material – Al Mn1 Mg0.5 according to the customer data
Standard colours according to the colour chart and mill finish smooth or mill finish stucco embossed

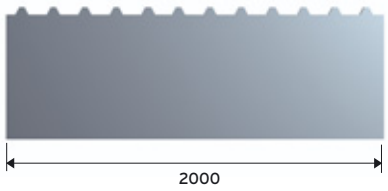
Material thickness 1.0 mm
Degree of hardness H14/44
Special colours on request

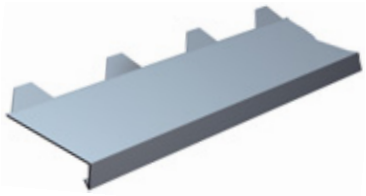


Serrated flashings

serrated on one or both sides according to the profile standard. Design is positive or negative. Flashings are applicable to all profiled panels.

- Ridge flashing
- Verge flashing
- Gutter flashing
- Connection flashing
- Plinth flashing
- Corner flashing
- Embrasure flashing
- Connecting piece deep-drawn on request





Profile fillers

Design of cell polyethylene or EPDM applicable to the Aluform elements (positive and negative).

Solar fasteners

for steel and wood substructures, diameter of 8 mm.

Aluform System GmbH & Co. KG
Dresdener Straße 15
D-02994 Bernsdorf

Phone: +49 (0) 35723 99-0
Fax: +49 (0) 35723 99-401
Email: info@aluform.de
www.aluform.com

© www.mkwa.de