



PRODUCT CATALOGUE



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TABLE OF CONTENT

4	About us	54	Z-C-U purlins
8	Raw material and coating system	58	Sinus profile
12	Metal roof tile	60	Pre-ribbed metal sheet
20	Modular metal roof tile	64	Gutters system
26	Trapezoidal metal sheet	70	Accessories
40	DAKO steel fence range	76	Trapezoidal metal sheet, metal roof tile, fence element color range
46	Sandwich panel	80	Information



**BUILDING MATERIAL
OF THE PAST, PRESENT
AND FUTURE**

ABOUT US

Zensteel® was born in 2014 with the establishment of TRM Pro Kft, with Hungarian owners and domestic production. It was created to introduce industrial, agricultural and residential customers to the potential of steel sheet products, highlighting trapezoidal metal sheet, metal roof tile, fencing panels, sandwich panels, guttering and purlins. Over the years, the company has been manufacturing and supplying to the domestic and foreign construction, residential and agricultural markets. Zensteel® also offers solutions for the construction of halls, industrial buildings, storages, roofs, fences, façades, garages and solar panel structures, among others.

The color of the roof or façade, the character and shape of the metal roof tile or trapezoidal metal sheet, basically determines the style of your house, building, hall, outbuilding. The Zensteel® product range is designed and continuously developed to offer a wide range of options for today's trendy building styles, both in terms of color, shape and surface design and coating. Our imagination is set free, with a wide range of Zensteel® products in hundreds of variations, so all you have to do is choose the one you like best to make everyone feel at home in your new building. The use of steel roofs goes back a long way, yet they are also an ideal choice for modern, minimalist houses!

WE OFFER COMPLEX SOLUTIONS



- 1. Trapezoidal metal sheet
- 2. Sandwich panel
- 3. Rooflight

- 4. Gutters
- 5. Metal sheet fence
- 6. Purlins



- 7. Pre-ribbed metal sheet
- 8. Skylight
- 9. Edge-bent sheets

- 10. Metal roof tile
- 11. Sinus profile
- 12. Snow guard





RAW MATERIAL AND COATING SYSTEM

RAW MATERIALS



We source the highest quality raw materials for our self-made sheet products. Our suppliers have been renowned international steel manufacturers for decades, so the quality of the carefully selected raw materials fully complies with advanced, modern European requirements and standards.

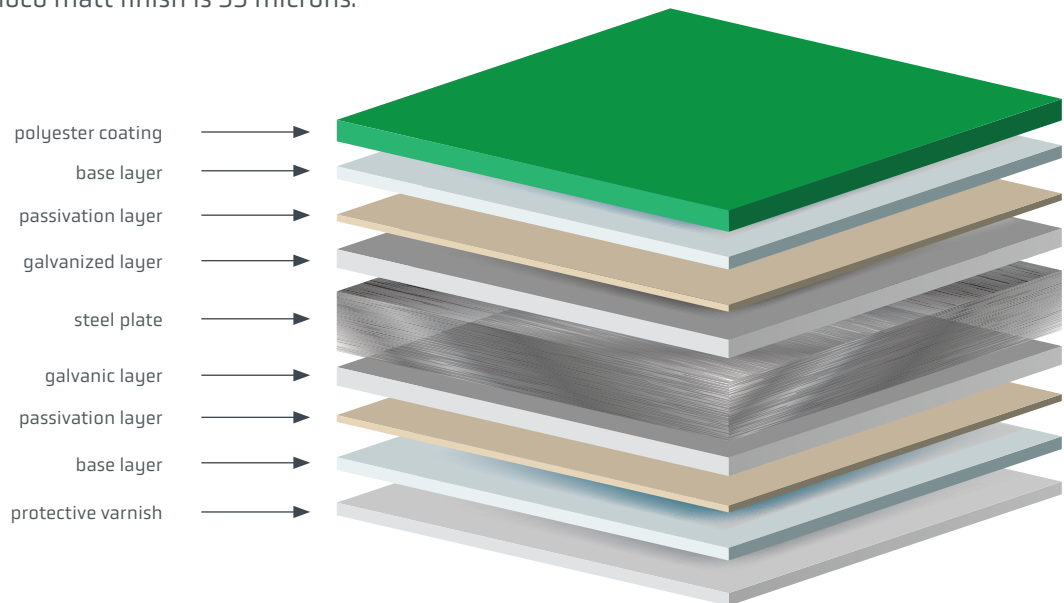
QUALITY AND DURABILITY

Our aim is to source a wide range of high quality raw materials, which is why we source from leading steel mills in Europe (Marcegaglia, Arcelor Mittal, Arvedi, US Steel) and Asia (Korea and Taiwan), ensuring quality for our customers.

COATING SYSTEM

The resistance of our products is guaranteed by the steel plate coating system. Together, the different coating treatments provide extra protection for the hot-dip galvanized steel core, significantly increasing its service life and quality retention.

The plastic-based (polyester) outer coating has different thicknesses for different surface treatment systems. The standard gloss finish is 25 microns, the matt finish is 35 microns and the Granite/Petra/Shimoco matt finish is 55 microns.







METAL ROOF TILE

STEEL PROTECTION FOR THE ROOF

Metal roof tile is very popular in the residential sector, it can be the perfect choice for covering family homes, condominiums, garages, outbuildings, gazebos, decks and canopies. It can also be used for roofing agricultural buildings, machinery sheds, granaries and industrial halls. Its light weight and durability make it a popular choice for the construction industry.

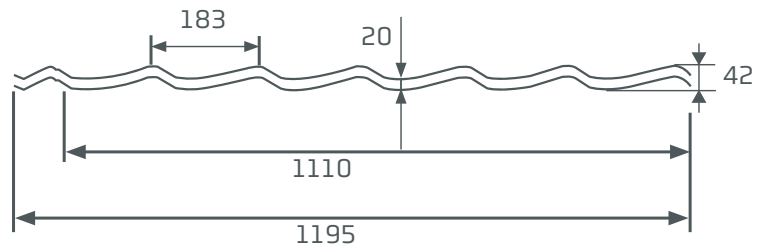
ZEN METAL ROOF TILE



The ZEN metal roof tile is our own classic, high quality product. The roofing tile is a unique length, pressed in a sinusoidal shape, with a 350mm tile module, perfectly meeting current expectations, both aesthetically and qualitatively. Its versatility (choice of colors and finishes), robustness (increased rib height), lightness (max. 5kg/m²) and undulating marine appearance make it a beautiful and durable roof.

TECHNICAL CHARACTERISTICS

Material thickness	0,40-0,45- 0,50 mm
Useful width	1110 mm
Overall width	1195 mm
Recomm. max. length	6000 mm
Rib height	42 mm
Stride length	350 mm
Weight	4-5 kg/m ²
Minimum roof slope	14°



PROPERTIES

- Our own manufactured product
- Classic, high quality
- Extreme durability
- Modern solution

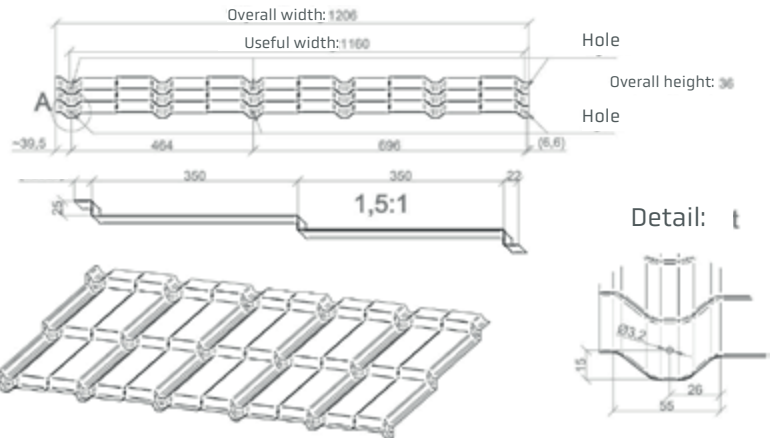
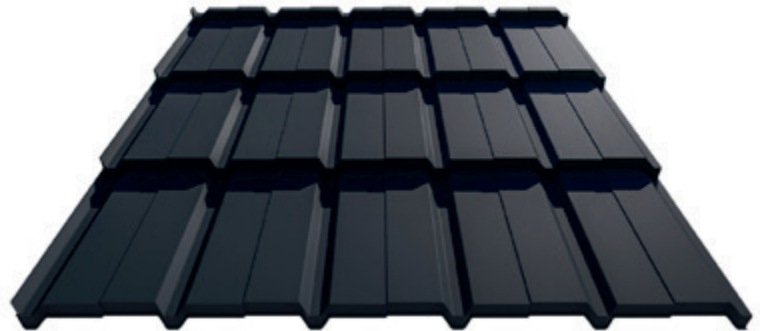
ZPLUS+ METAL ROOF TILE



The Zplus+ metal roof tile is a modern looking roof cladding element. Manufactured in custom lengths or modular designs, the Zplus+ metal roof tile is adapted to the appearance challenges of modern construction. Its modern appearance makes it the jewel in the crown of both new and renovated roofs. Its light weight means that it does not put any strain on the roof structure, guaranteeing durability and safety.

TECHNICAL CHARACTERISTICS

Material thickness	0,40-0,45- 0,50 mm
Useful width	1160 mm
Overall width	1206 mm
Recomm. max. length	6000 mm
Rib height	30 mm
Overall profile height	36 mm
Stride length	350 mm
Minimum roof slope	~13°



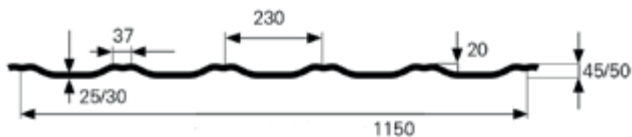
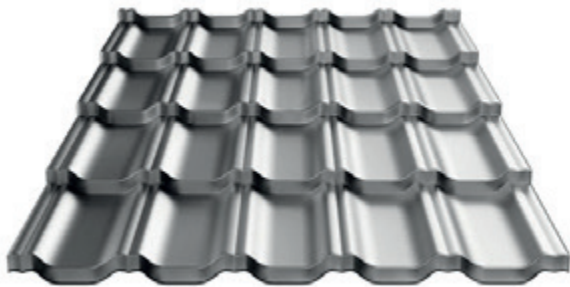
PROPERTIES

- Our own manufactured product
- High quality
- Extreme durability
- Modern solution

GAMMA

TECHNICAL CHARACTERISTICS

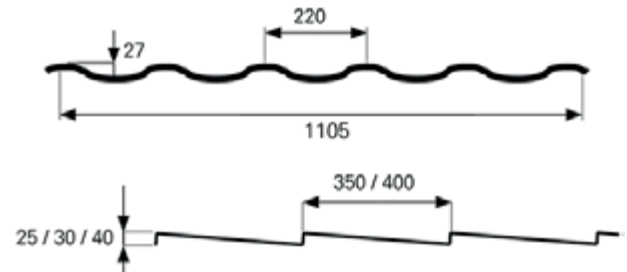
Material thickness	0,5 mm
Useful width	1150 mm
Overall width	1212 mm
Recomm. max. length	6020 mm
Rib height	45/50 mm
Stride length	350/400 mm



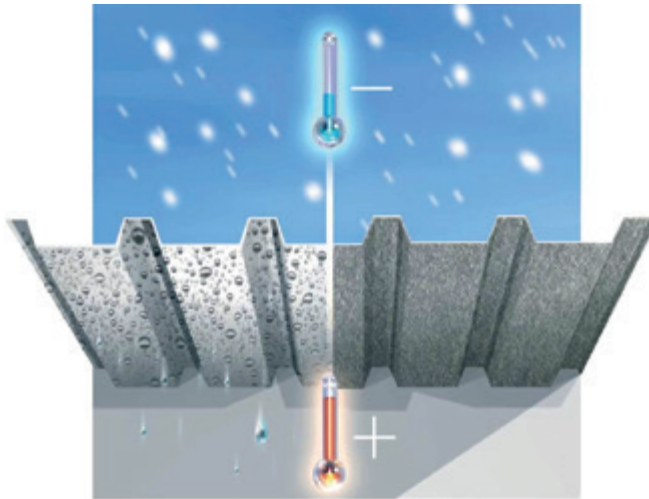
STIGMA

TECHNICAL CHARACTERISTICS

Material thickness	0,5 mm
Useful width	1105 mm
Overall width	1194 mm
Recomm. max. length	6110 mm
Rib height	25/30/40 mm
Stride length	350/400 mm
Weight	~4,5 kg/m ²
Roof slope	>9°



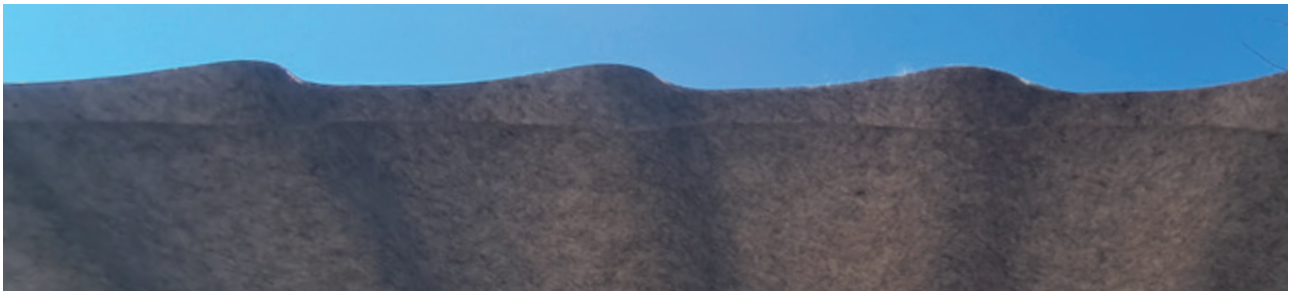
ANTICONDENSATION FELT COATING

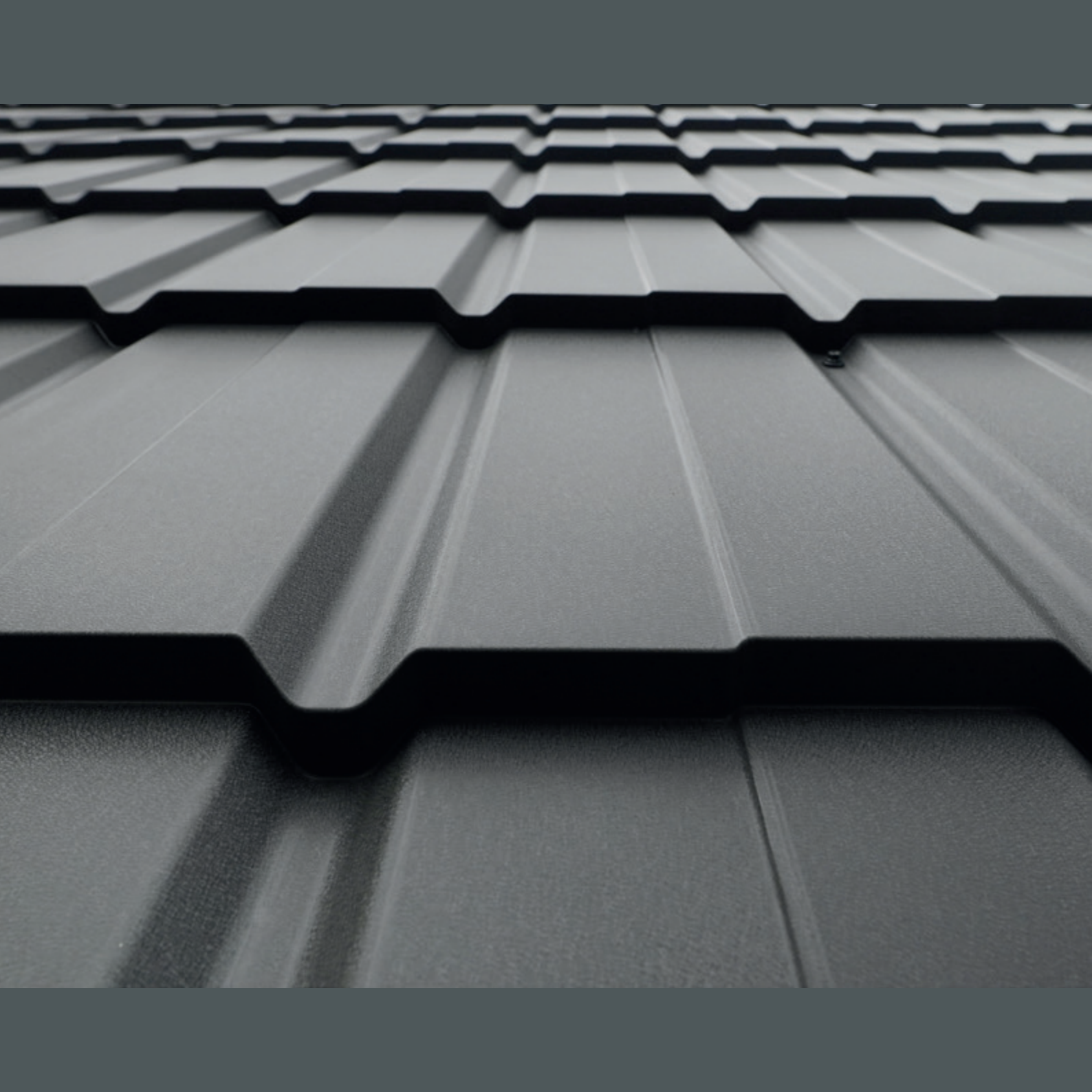


An anti-condensation felt (optional) applied directly to the internal armoring of the metal roof tile protects against condensation. The felt layer traps moisture, which then evaporates into the immediate environment as weather conditions change. In some cases, it is therefore not necessary to place a foil under the roof slats, as the felt coating prevents condensation from dripping off, thus protecting the roof structure.

APPLICATION AREAS OF FELT METAL ROOF TILE

- family homes
- warehouses, plants (uninsulated)
- agricultural containers (of particular importance!)
- parking spaces
- garages
- machinery sheds







MODULAR METAL ROOF TILE

NEW GENERATION ROOFING

Modular metal roof tiles represent a new generation of roofing with innovative technology and sophisticated aesthetics. Modular panels are manufactured to standard sizes, making transport, assembly and storage much easier and faster. These are highly efficient solutions designed to optimize labor costs and keep waste to a minimum.

ZPLUS+

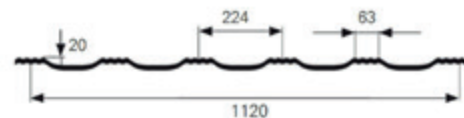
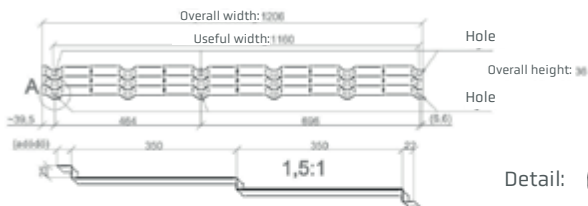
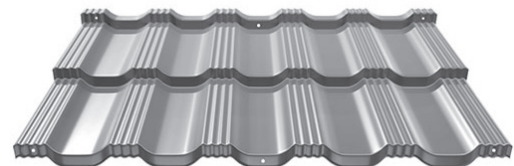
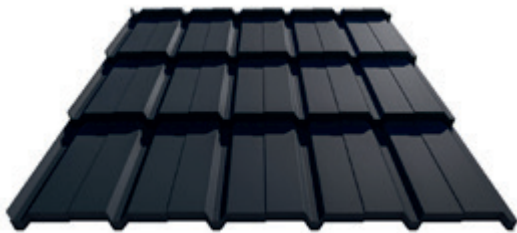
BAVARIA ROOF 2.0

TECHNICAL CHARACTERISTICS

Material thickness	0,40-0,45m-
	0,50 mm
Useful width	1160 mm
Overall width	1206 mm
Slab length	734 mm
Overall profile height	36 mm
Rib height	30 mm
Useful area of one slab	0,851 m ²

TECHNICAL CHARACTERISTICS

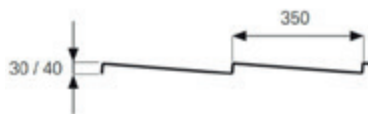
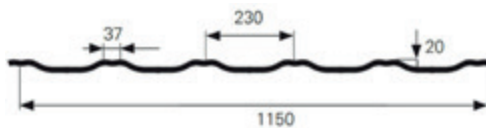
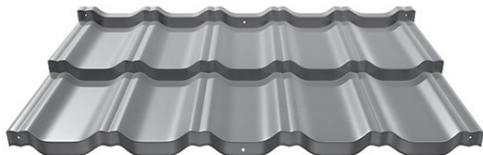
Material thickness	0,50 mm
Useful width	1120 mm
Overall width	1206 mm
Rib height	50/60 mm
Pattern height	30/40 mm
Module length	350 mm
Weight	~4,5 kg/m ²
Overall profile height	50/60 mm
Coverage of a slab	0,784 m ²

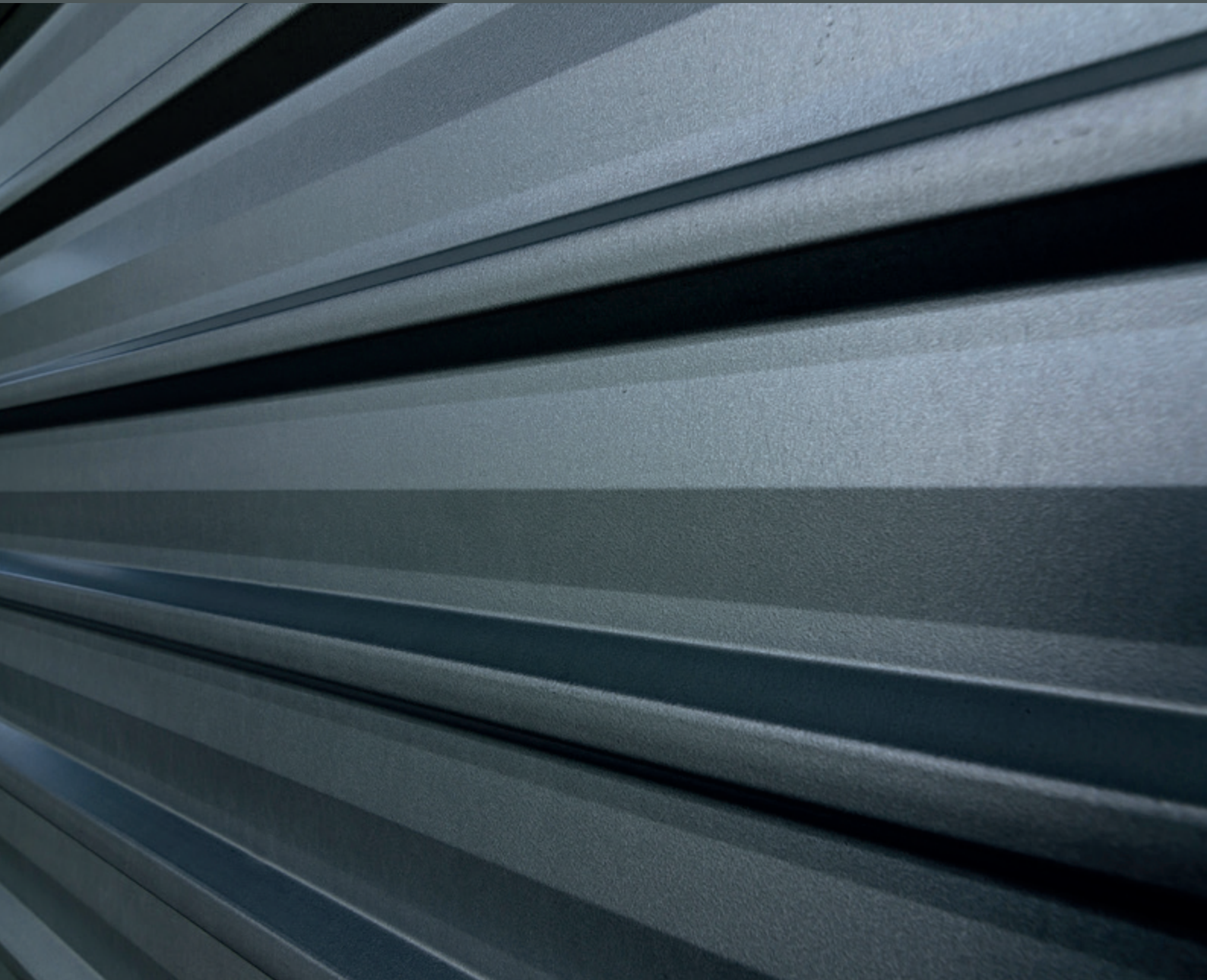


GAMMA 2.0

TECHNICAL CHARACTERISTICS

Material thickness	0,50 mm
Useful width	1150 mm
Overall width	1212 mm
Pattern height	30/40 mm
Module length	350 mm
Weight	~4,5 kg/m ²
Overall profile height	50/60 mm
Coverage of a slab	0,805 m ²







TRAPEZOIDAL METAL SHEET

FUTURE-PROOF SOLUTION

Trapezoidal sheet steel is a popular lightweight structural component for halls, commercial, industrial and agricultural buildings. By using slab elements with different rib heights and section sizes, large surfaces can be covered in a short time, providing a durable solution for all types of buildings thanks to the rigid ribs. The light weight makes the trapezoidal sheet easy to handle, machine and transport economically.

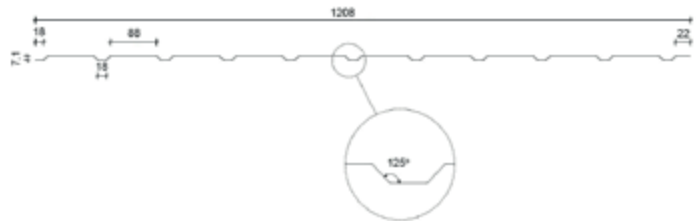
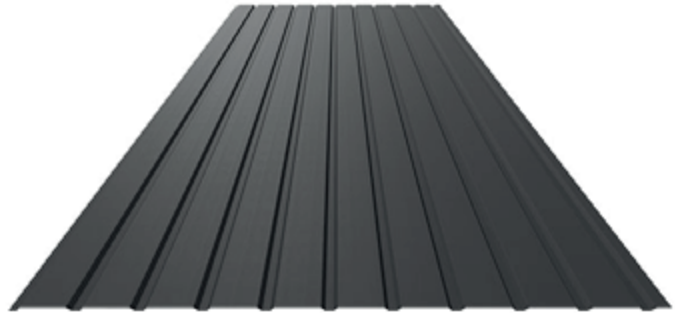
T8 TRAPEZOIDAL METAL SHEET



T8 trapezoidal sheet is typically used as a cladding for façades and ceilings. On roofs, it is used to cover the bottom of the eaves and the rafters, as it is maintenance-free and does not need to be painted every few years. Also an excellent choice for fencing, the low rib guarantees an aesthetic appearance.

TECHNICAL CHARACTERISTICS

Material thickness	0,4-0,45- 0,5 mm
Useful width	1168 mm
Overall width	1208 mm
Recomm. max. length	6000 mm
Rib height	~7 mm



PROPERTIES

- It is used as a ceiling and façade cladding material, and for cladding eaves and rafters.
- Popular two-sided woodgrain finish

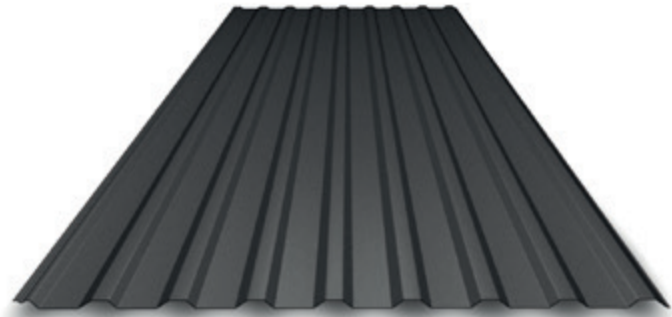
T18 TRAPEZOIDAL METAL SHEET



T18 trapezoidal sheet is the most popular profile when it comes to cladding or roofing. It is the preferred choice of clients for halls, outbuildings, fences, suspended ceilings, garages, almost any project where a panel is required and the project is not specifically industrial. T18 trapezoidal sheet is the number one choice of the general public when it comes to fencing, with an appearance that fits in with both modern and classic styles.

TECHNICAL CHARACTERISTICS

Material thickness	0,4-0,6 mm
Useful width	1100 mm
Overall width	1140 mm
Recomm. max. length	8000 mm /10000 mm
Rib height	18 mm



PROPERTIES

- The T18 trapezoidal sheet can be supplied with an anti-condensation felt coating on request.
- The felt prevents condensation from condensing due to the temperature difference between inside and outside, thus protecting the supporting structure from corrosion.

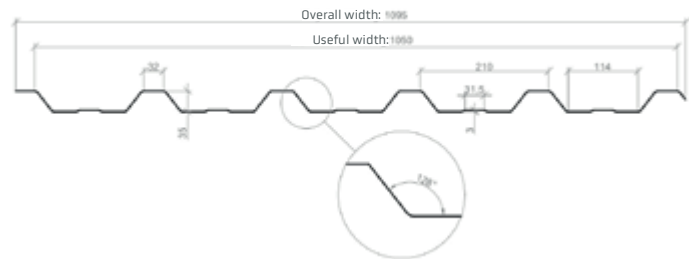
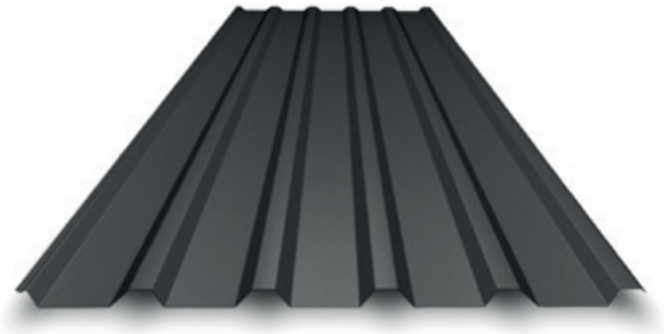
T35 TRAPEZOIDAL METAL SHEET



T35 trapezoidal sheet is our most popular residential and industrial roofing profile. It is also an excellent choice for facades and ceilings. It is the first choice for roofing agricultural stores, machinery sheds, granaries, factories and halls, its rigidity and static properties combined with the quality of the material provide excellent durability.

TECHNICAL CHARACTERISTICS

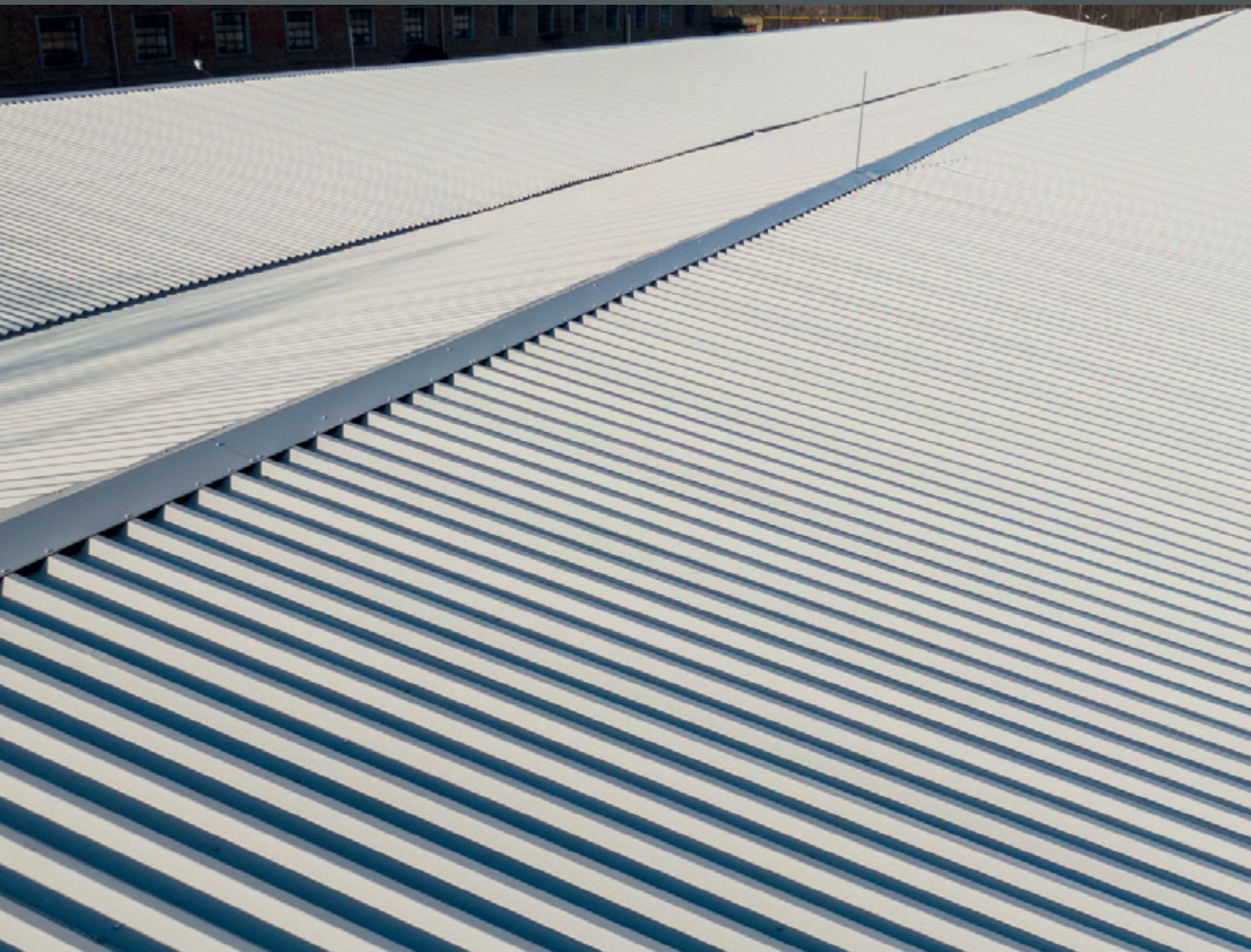
Material thickness	0,4-1,0 mm
Useful width	1050 mm
Overall width	1095 mm
Recomm. max. length	12000 mm
Rib height	35 mm



PROPERTIES

- The T35 trapezoidal sheet can be supplied with an anti-condensation felt coating on request.
- The felt prevents condensation from condensing due to the temperature difference between inside and outside, thus protecting the supporting structure from corrosion.

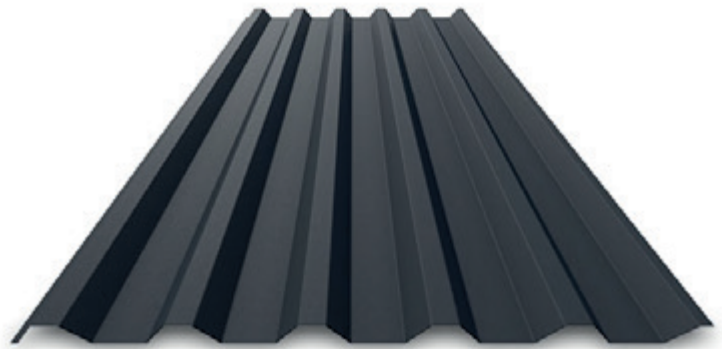
T40 TRAPEZOIDAL METAL SHEET



Whether we are talking about agricultural, industrial or residential buildings, it is an excellent choice for warehouses, dryers, factories, halls, storages, machinery sheds or outbuildings, even with an anti-condensation felt coating to protect against condensation. The T40 trapezoidal sheet is available in the requested production length [fixed width] with standard gloss, matt or extra coating.

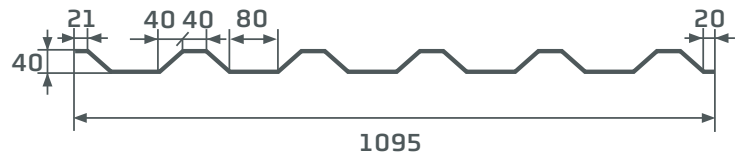
TECHNICAL CHARACTERISTICS

Material thickness	0,45-0,6 mm
Useful width	995 mm
Overall width	1095 mm
Recomm. max. length	10000 mm
Profile height	40 mm
Rib spacing	162 mm



PROPERTIES

- The T40 trapezoidal sheet can be supplied with an anti-condensation felt coating on request. The felt prevents condensation from condensing due to the temperature difference between inside and outside, thus protecting the supporting structure from corrosion.
- The first choice for roofing agricultural stores, machinery sheds, granaries, factories, halls



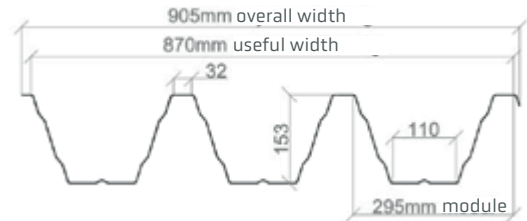
T153 TRAPEZOIDAL METAL SHEET



The T153 trapezoidal sheet is the most common industrial high rib profile. It is most commonly used in factories, plants, halls and commercial buildings. It is a high rigidity profile for high construction, allowing large spans to be bridged, thus reducing costs.

TECHNICAL CHARACTERISTICS

Material thickness	0,7-1,5 mm
Useful width	870 mm
Overall width	905 mm
Recomm. max. length	14000 mm
Profile height	153 mm



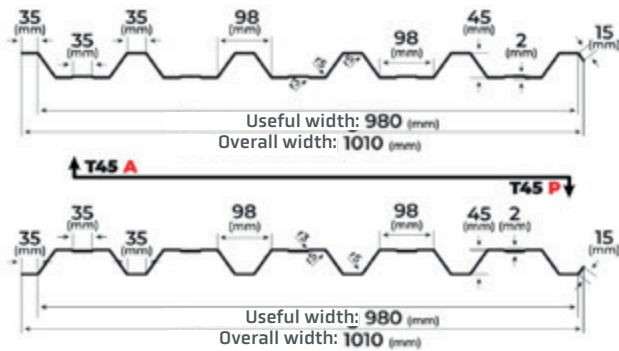
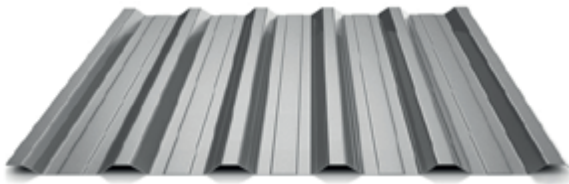
PROPERTIES

- Available finishes: natural galvanized, PE painted interior (Ral 9002 or 9010)

T45

TECHNICAL CHARACTERISTICS

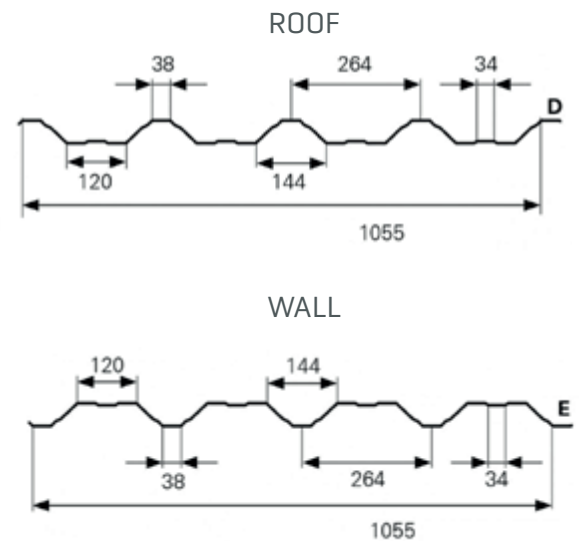
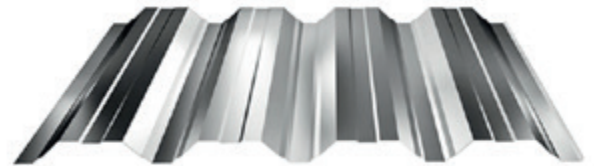
Material thickness	0,4-1,0 mm
Useful width	980 mm
Overall width	1010 mm
Recomm. max. length	12000 mm
Rib height	45 mm



T50

TECHNICAL CHARACTERISTICS

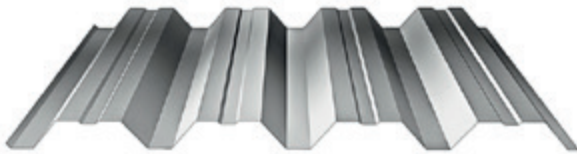
Material thickness	0,5-1,0 mm
Useful width	1055 mm
Overall width	1100 mm
Recomm. max. length	12000 mm
Rib height	47 mm



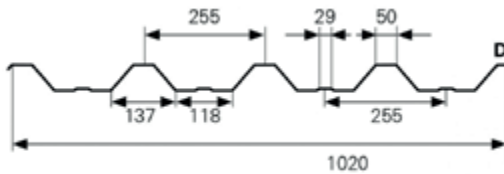
T55

TECHNICAL CHARACTERISTICS

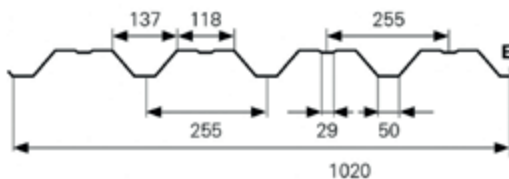
Material thickness	0,5-1,0 mm
Useful width	1020 mm
Overall width	1054 mm
Recomm. max. length	12000 mm
Rib height	53 mm



ROOF



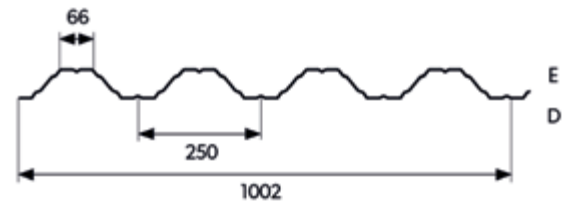
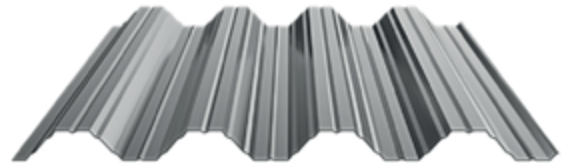
WALL



T60

TECHNICAL CHARACTERISTICS

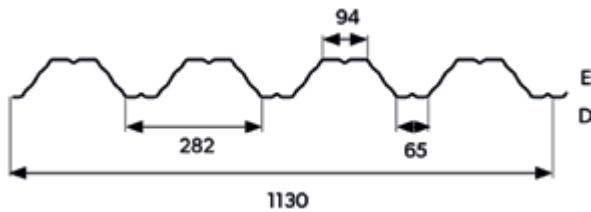
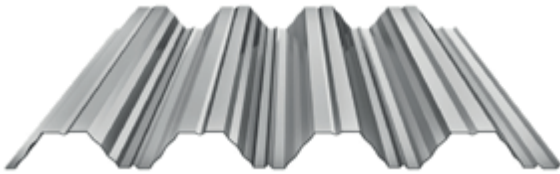
Material thickness	0,6-1,25 mm
Useful width	1002 mm
Overall width	~1040 mm
Recomm. max. length	12000 mm
Rib height	61 mm



T80

TECHNICAL CHARACTERISTICS

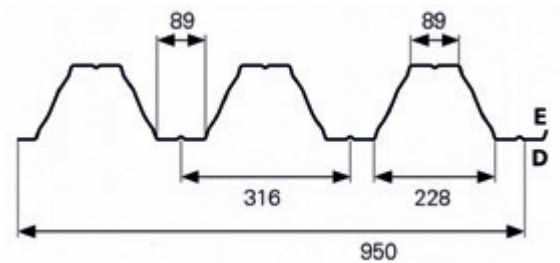
Material thickness	0,7-1,5 mm
Useful width	1130 mm
Overall width	~1165 mm
Recomm. max. length	14000 mm
Rib height	82 mm
Minimum slope	4°



T135

TECHNICAL CHARACTERISTICS

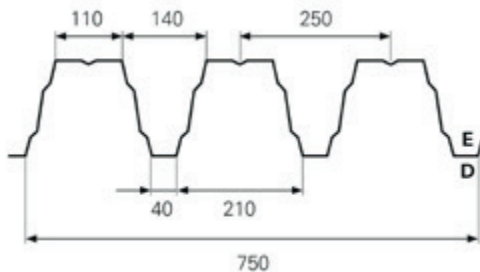
Material thickness	0,7-1,5 mm
Useful width	950 mm
Overall width	994 mm
Recomm. max. length	14000 mm
Rib height	134 mm



T160

TECHNICAL CHARACTERISTICS

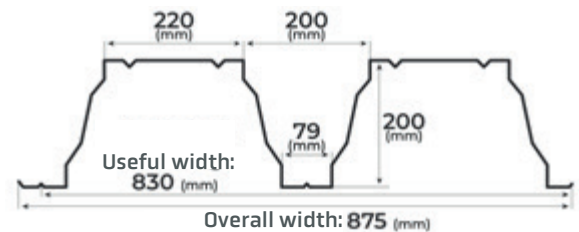
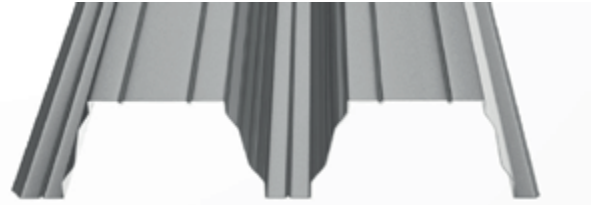
Material thickness	0,75-1,5 mm
Useful width	750 mm
Overall width	~790 mm
Recomm. max. length	14000 mm
Rib height	162 mm
Minimum slope	4°



T200

TECHNICAL CHARACTERISTICS

Material thickness	0,75-1,5 mm
Useful width	840 mm
Overall width	875 mm
Recomm. max. length	13500 mm
Rib height	200 mm
Weight	0,71 – 17,86 kg/m ²







DAKO STEEL FENCE RANGE

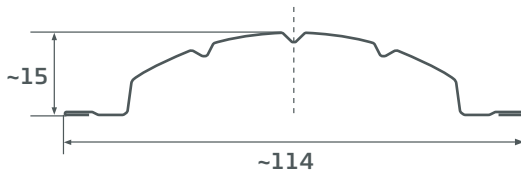
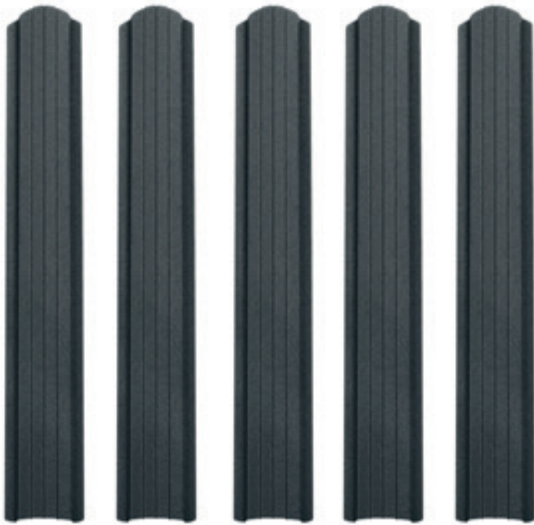
Our maintenance-free colored steel fence panels are available in a variety of designs, coatings, sizes and shades.

It can be used in a wide variety of ways, as a fence, railing, shade and other stylish decorations, both vertically and horizontally.

Thanks to its material and coating, it will provide a stylish, beautiful appearance in and around the house for many years without the need for maintenance. We can deliver the product to your door.

DAKO HILL

CURVED STEEL FENCE PANEL



Modern, aesthetic, clean-looking, maintenance-free Zensteel® DAKO HILL curved steel fence panels.

The maintenance-free Zensteel® DAKO HILL steel fence panels are a modern and excellent alternative to the classic fence.

Painted on both sides, the curved steel "lath" gives a natural look on both sides of the fence, and the color palette offers a wide choice.

TECHNICAL CHARACTERISTICS

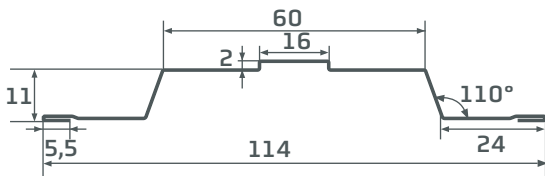
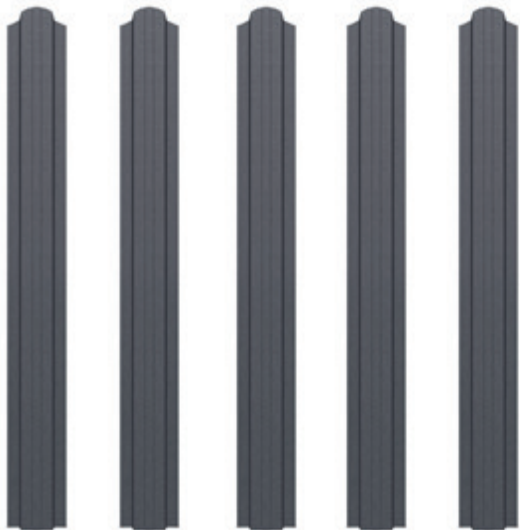
Raw material	galvanized steel sheet, painted on both sides, with one or two sides coated with polyester
Sheet thickness	steel plate between 0.40 - 0.55 mm
Overall/cover width	114 mm
Profile height	~15 mm [the curve may be flatter for matt and wood pattern]
Orderable element length	up to 300 cm length is recommended

PROPERTIES

- no varnishing or painting required
- long life
- resistant to mechanical deformation
- quick and easy installation
- can be produced in the desired length
- wide range of colors
- same color fixing screw can be purchased

DAKO TRAIL

STEEL FENCE PANEL



TECHNICAL CHARACTERISTICS

Raw material	galvanized steel sheet, painted on both sides, with one or two sides coated with polyester
Sheet thickness	steel plate between 0.40 - 0.55 mm
Overall/cover width	114 mm
Profile height	~13 mm [the curve may be flatter for matt and wood pattern]
Orderable element length	up to 300 cm length is recommended

Carefree DAKO TRAIL steel fence rails for those who like angular patterns.

They make our homes look special and beautiful for a long time without the need to spend time on maintenance and repainting. Choose the maintenance-free fence!

The DAKO TRAIL steel fence panel is a popular product thanks to its angular design, with a curved cut at one end and a straight cut at the other. Also available with a straight cut at both ends.

Painted on both sides, the angularly shaped steel "lath" gives a natural look on both sides of the fence, and the color palette offers a wide choice.

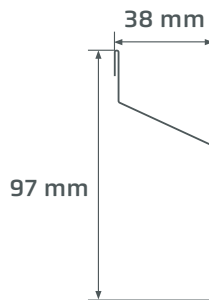
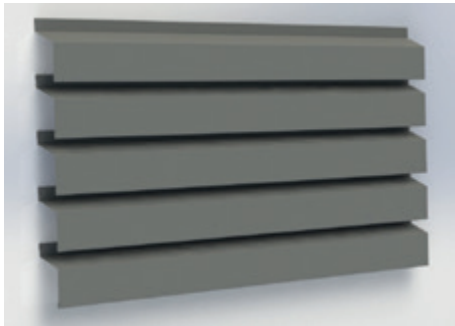
PROPERTIES

- no varnishing or painting required
- long life
- resistant to mechanical deformation
- quick and easy installation
- can be produced in the desired length
- wide range of colors
- same color fixing screw can be purchased

DAKO LINE

STEEL FENCE PANEL

Maintenance-free DAKO LINE steel fence rails with shutter effect.



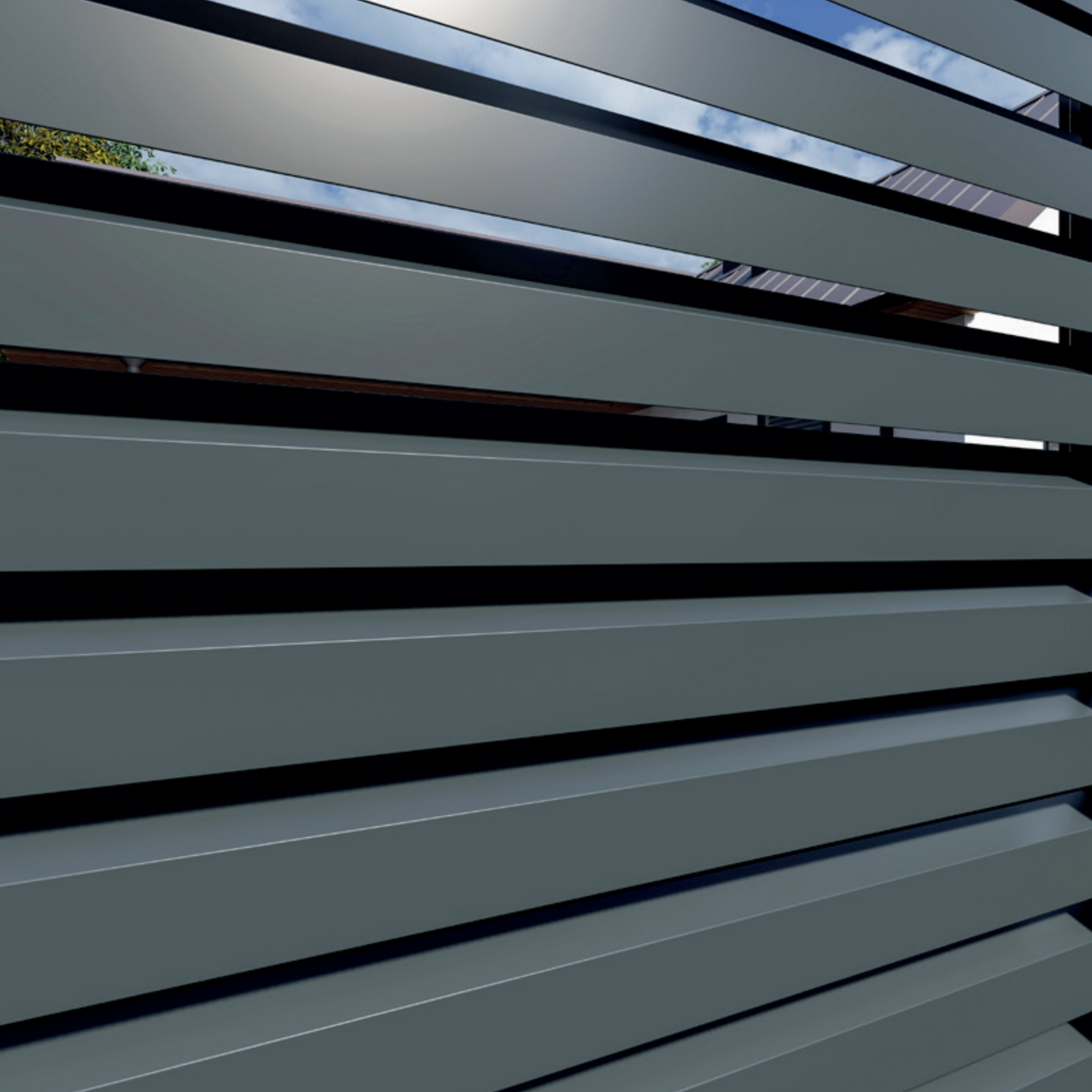
The maintenance-free Zensteel® DAKO LINE steel fence range offers versatile functionality: it can be used as a fence or as a shading element, as its form, reminiscent of a shutter, offers a multitude of possibilities. It can also be used as a privacy barrier when creating front gardens or terraces, and it is also excellent as a rain screen.

PROPERTIES

- maintenance-free, does not require varnishing or painting
- hidden fixing, screws are not visible when properly installed
- long life
- resistant to mechanical deformation
- easy installation
- can be produced in the desired length
- wide choice of colors and finishes (several woodgrain versions)
- same color fixing screw can be purchased
- can be installed both horizontally and vertically
- shutter-like appearance

TECHNICAL CHARACTERISTICS

Raw material	galvanized steel sheet, painted on both sides, with one or two sides coated with polyester
Sheet thickness	steel plate between 0.40 - 0.55 mm
Overall/cover width	97 mm
Profile height	38 mm
Orderable element length	up to 300 cm length is recommended



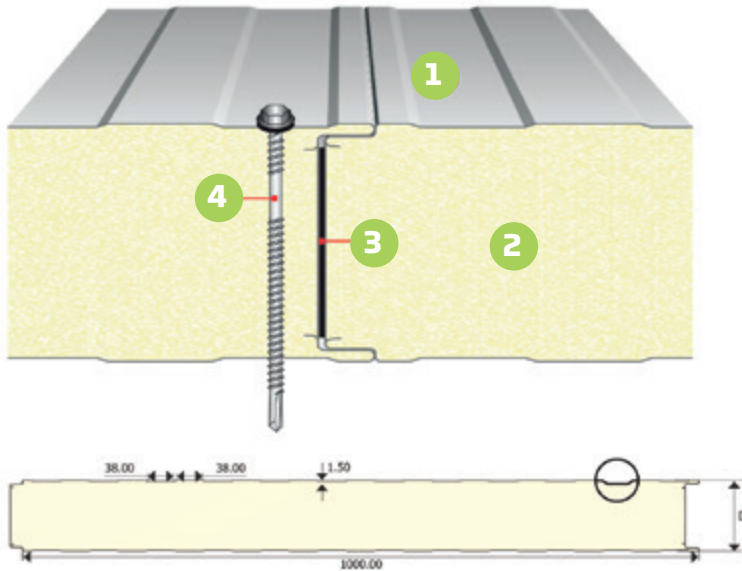




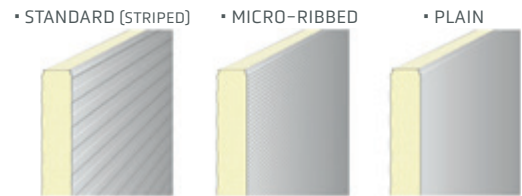
SANDWICH PANEL

The sandwich panel is a prefabricated, versatile structural element consisting of two sides of color-coated steel armoring and an internal thermal insulation core. This core – also known as the filler, whose function is to provide thermal insulation – can be polyisocyanurate (PIR), polyurethane (PUR) or rock wool (KGY). Sandwich panels can be used to build a variety of roofing, façade cladding, partitioning, partition walls and ceilings. It can be used in industrial or commercial buildings and halls, cold stores, sports facilities, warehouses and the food industry. Sandwich panels are also becoming increasingly popular among the residential sector, being used for lightweight houses, mobile garages, suspended ceilings, fences, outbuildings, cold storage rooms, interior design solutions and gates.

SANDWICH PANEL WITH VISIBLE FIXING

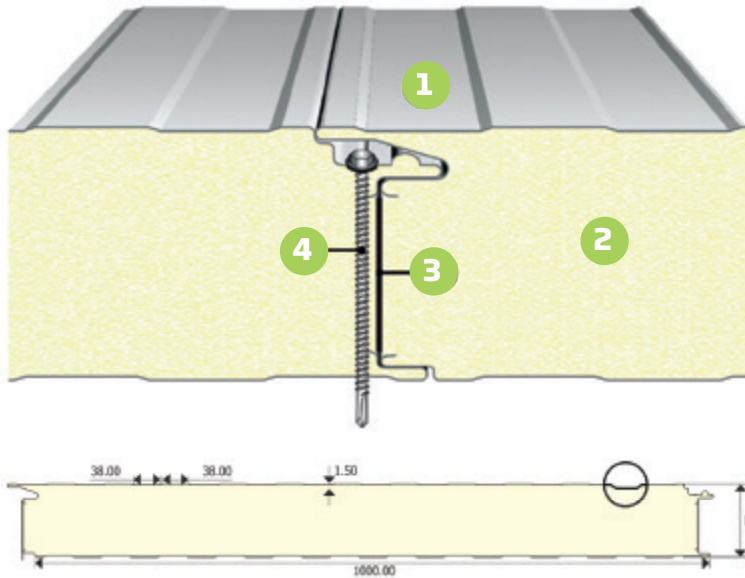


1. Pre-painted steel plate. Ribs: standard striped, micro-ribbed, plain.
2. Filling: polyurethane (PUR) or polyisocyanurate (PIR) foam
3. Airtight seal
4. Self-drilling panel screw with EPDM washer

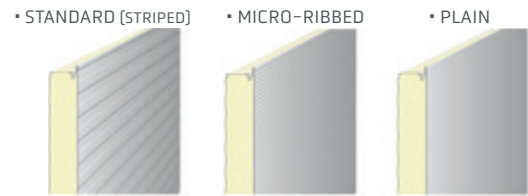


D [mm]	Weight [kg]/m ²	U [W/m ² K]		Calculation values, wind load [kN/m ²]													
				0.75	1.50	2.25	3.00	3.38	4.13	4.88	0.75	1.50	2.25	3.00	3.38	4.13	4.88
		U1	U2	Permitted distance between supports [m]													
30	7.97	0.77	0.65	2.94	2.30	1.77	1.33	1.18	0.97	0.82	3.60	2.54	1.77	1.33	1.18	0.97	0.82
40	8.35	0.58	0.50	3.85	2.95	2.41	1.81	1.61	1.32	1.11	4.17	2.95	2.41	1.81	1.61	1.32	1.11
50	8.74	0.46	0.41	4.62	3.29	2.69	2.29	2.04	1.67	1.41	4.65	3.29	2.69	2.29	2.04	1.67	1.41
60	9.14	0.37	0.35	5.05	3.57	2.92	2.53	2.38	2.02	1.71	5.05	3.57	2.92	2.53	2.38	2.02	1.71
80	9.85	0.28	0.26	5.38	3.81	3.11	2.69	2.54	2.30	2.11	5.38	3.81	3.11	2.69	2.54	2.30	2.11
100	10.62	0.22	0.21	5.77	4.08	3.33	2.89	2.72	2.46	2.27	5.77	4.08	3.33	2.89	2.72	2.46	2.27
120	11.48	0.19	0.18	6.26	4.42	3.61	3.13	2.95	2.67	2.46	6.26	4.42	3.61	3.13	2.95	2.67	2.46

SANDWICH PANEL WITH HIDDEN FIXING



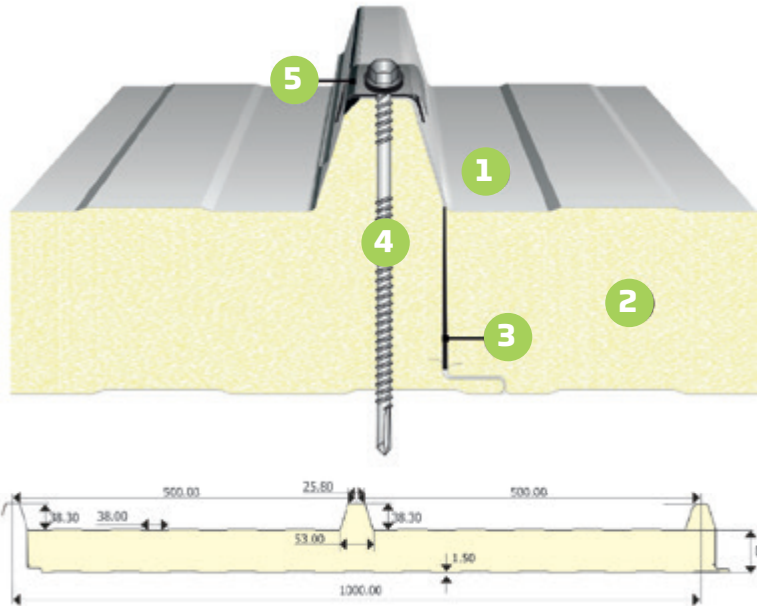
1. Pre-painted steel plate. Ribs: standard striped, micro-ribbed, plain.
2. Filling: polyurethane (PUR) or polyisocyanurate (PIR) foam
3. Airtight seal
4. Self-drilling panel screw with EPDM washer



D [mm]	Weight [kg]/m ²	U [W/m ² K]		Calculation values, wind load [kN/m ²]													
				Permitted distance between supports [m]													
				0.75	1.50	2.25	3.00	3.38	4.13	4.88	0.75	1.50	2.25	3.00	3.38	4.13	4.88
U1	U2																
0	8.64	0.58	0.50	3.85	2.95	2.41	1.81	1.61	1.32	1.11	4.17	2.95	2.41	1.81	1.61	1.32	1.11
50	9.03	0.46	0.41	4.62	3.29	2.69	2.29	2.04	1.67	1.41	4.65	3.29	2.69	2.29	2.04	1.67	1.41
60	9.42	0.37	0.35	5.05	3.57	2.92	2.53	2.38	2.02	1.71	5.05	3.57	2.92	2.53	2.38	2.02	1.71
80	10.13	0.28	0.26	5.38	3.81	3.11	2.69	2.54	2.30	2.11	5.38	3.81	3.11	2.69	2.54	2.30	2.11
100	10.91	0.22	0.21	5.77	4.08	3.33	2.89	2.72	2.46	2.27	5.77	4.08	3.33	2.89	2.72	2.46	2.27
120	11.72	0.19	0.18	6.26	4.42	3.61	3.13	2.95	2.67	2.46	6.26	4.42	3.61	3.13	2.95	2.67	2.46

ROOF PANEL

THERMAL INSULATION ROOF PANEL WITH 3 RIBS

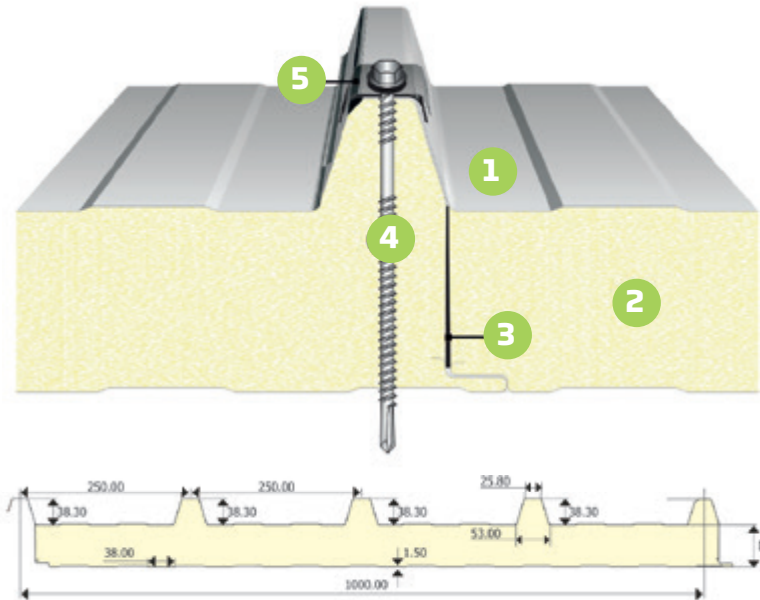


1. Pre-painted steel plate. Armament: standard 3-rib
2. Filling: polyurethane (PUR) or polyisocyanurate (PIR) foam
3. Airtight seal
4. Self-drilling panel screw with EPDM washer [panel picture]
5. Clip

D [mm]	Weight [kg]/m ²	U [W/m ² K]		Calculation values, wind load [kN/m ²]													
				0.75	1.50	2.25	3.00	3.38	4.13	4.88	0.75	1.50	2.25	3.00	3.38	4.13	4.88
		U1	U2	Permitted distance between supports [m]													
30	8.40	0.68	0.65	2.46	1.62	1.28	1.09	1.02	0.91	0.84	2.46	1.62	1.28	1.09	1.02	0.91	0.84
40	8.79	0.52	0.50	2.93	1.83	1.39	1.16	1.08	0.96	0.87	2.93	1.83	1.39	1.16	1.08	0.96	0.87
50	9.18	0.43	0.41	3.60	2.18	1.59	1.29	1.19	1.04	0.93	3.19	2.16	1.59	1.29	1.19	1.04	0.93
60	9.57	0.36	0.35	4.08	2.45	1.72	1.36	1.24	1.07	0.95	3.34	2.23	1.72	1.36	1.24	1.07	0.95
80	10.28	0.27	0.26	5.19	3.23	2.23	1.66	1.47	1.22	1.06	3.63	2.38	1.87	1.58	1.47	1.22	1.06
100	11.04	0.22	0.21	5.97	3.82	2.62	1.88	1.64	1.32	1.13	3.78	2.47	1.93	1.63	1.52	1.32	1.13
120	11.80	0.18	0.18	6.53	4.26	3.00	2.15	1.85	1.44	1.20	3.80	2.53	1.98	1.67	1.56	1.39	1.20

ROOF PANEL

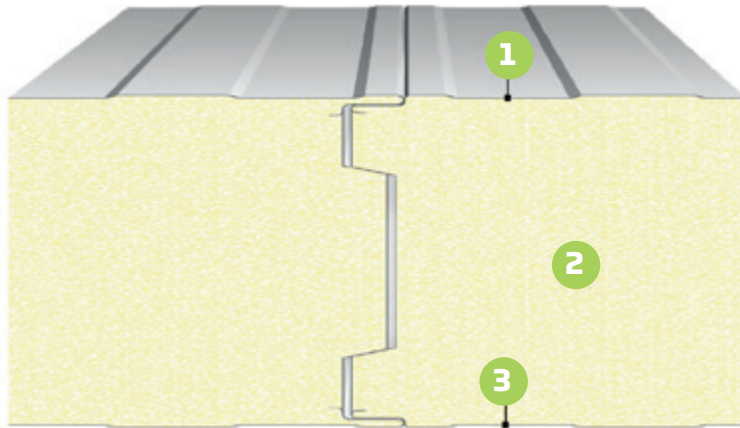
THERMAL INSULATION ROOF PANEL WITH 5 RIBS



1. Pre-painted steel plate. Armament: standard 3-rib
2. Filling: polyurethane (PUR) or polyisocyanurate (PIR) foam
3. Airtight seal
4. Self-drilling panel screw with EPDM washer [panel picture]
5. Clip

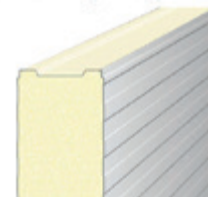
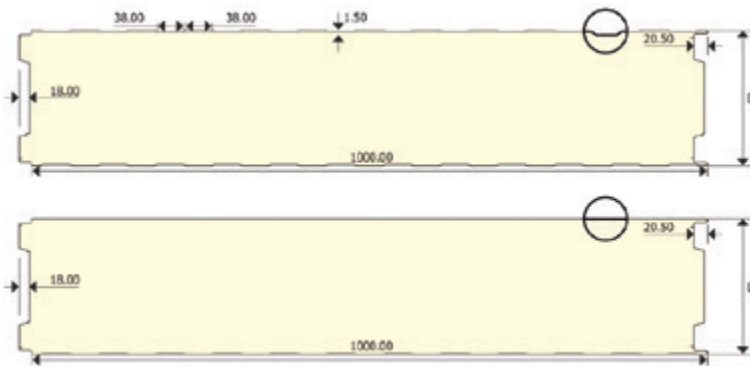
D [mm]	Weight [kg]/m ²	U [W/m ² K]		Calculation values, wind load [kN/m ²]													
				0.75	1.50	2.25	3.00	3.38	4.13	4.88	0.75	1.50	2.25	3.00	3.38	4.13	4.88
		U1	U2	Permitted distance between supports [m]													
30	8.85	0.68	0.65	3.26	2.18	1.72	1.45	1.36	1.21	1.11	3.26	2.18	1.72	1.45	1.36	1.21	1.11
40	9.24	0.52	0.50	3.71	2.42	1.85	1.54	1.43	1.27	1.15	3.71	2.42	1.85	1.54	1.43	1.27	1.15
50	9.63	0.43	0.41	4.26	2.73	2.04	1.66	1.53	1.34	1.20	4.26	2.73	2.04	1.66	1.53	1.34	1.20
60	10.02	0.36	0.35	4.68	3.07	2.26	1.81	1.65	1.43	1.27	4.59	3.07	2.26	1.81	1.65	1.43	1.27
80	10.72	0.27	0.26	5.51	3.84	2.81	2.18	1.96	1.64	1.43	4.99	3.29	2.57	2.17	1.96	1.64	1.43
100	11.47	0.22	0.21	6.27	4.52	3.33	2.56	2.28	1.87	1.59	5.28	3.46	2.68	2.25	2.09	1.86	1.59
120	12.23	0.18	0.18	6.81	5.04	3.76	2.90	2.58	2.08	1.73	5.28	3.51	2.74	2.29	2.13	1.89	1.71

COLD STORAGE WALL PANEL



1. Pre-painted steel plate. Ribs: standard striped, plain. Also available with food-grade coating.
2. Filling: polyurethane (PUR) or polyisocyanurate (PIR) foam
3. Pre-painted steel plate. Ribs: standard stripe. Also available with food-grade coating.

The cold storage panels are designed for temperatures between -40°C and 0°C . Can be used in: refrigeration and re-freezing rooms, food processing areas, in accordance with strict hygiene rules.



STANDARD (STRIPED)



PLAIN SURFACE

D [mm]	Weight [kg]/m ²	U [W/m ² K]		Calculation values, wind load [kN/m ²]															
				Permitted distance between supports [m]															
				0.75	1.50	2.25	3.00	3.38	4.13	4.88	0.75	1.50	2.25	3.00	3.38	4.13	4.88		
U1	U2																		
120	11.48	0.19	0.18	6.26	4.42	3.61	3.13	2.95	2.67	2.46	6.26	4.42	3.61	3.13	2.95	2.67	2.46		
150	12.5	0.15	0.14	6.97	4.93	4.02	3.49	3.29	2.97	2.74	6.97	4.93	4.02	3.49	3.29	2.97	2.74		
200	14.4	0.11	0.11	8.08	5.71	4.66	4.04	3.81	3.45	3.17	8.08	5.71	4.66	4.04	3.81	3.45	3.17		







Z-C-U PURLINS

Cold rolled galvanized light steel sections are a 21st century category of construction products and are becoming increasingly popular for the benefits they offer. The purlins are profiled on a long production line, so that sections of any size can be produced from the stress-free steel material.

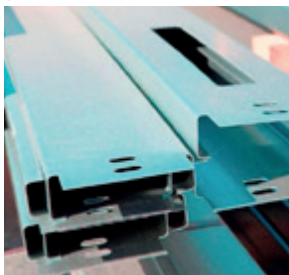
Z-C-U AND SIGMA (Σ) PURLINS

Cold rolled galvanized light steel sections are a 21st century category of construction products and are becoming increasingly popular for the benefits they offer.

The purlins are profiled on a long production line, so that sections of any size can be produced from the stress-free steel material.

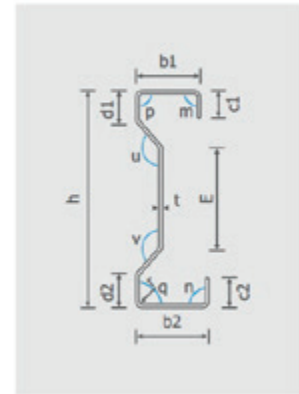
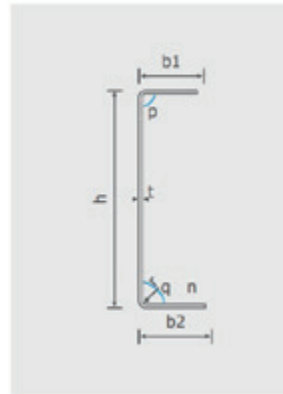
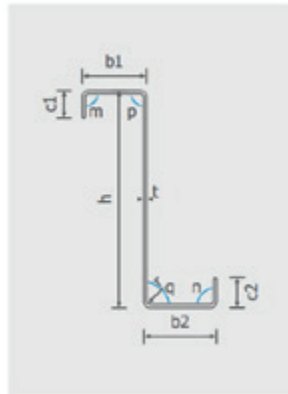
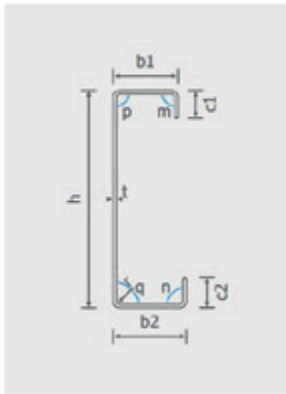
ADVANTAGES

- easy and quick installation (with screw fastening) and handling
- high strength and load capacity
- 100% biodegradable and recyclable system
- no unnecessary waste during production
- corrosion resistant galvanized steel material
- low assembly and delivery costs
- non-standard purlins types can be manufactured
- drilling (hole at screw connection) possible, even according to individual drawing



TECHNICAL CHARACTERISTICS

Types	Z, C, U and Sigma purlins
Production length	2-14.5 m
Material quality	S350GD + Z275, galvanized steel plate according to SR EN 10143 and SR EN 10346
Material thickness	0-4.0 mm
Boreholes	are pre-drilled, up to 12-18 mm



Possible applications of galvanized purlins

- As steel structural elements in residential, industrial or agricultural construction
- As a secondary support, as a roof or wall panel

APPLICATIONS OF GALVANIZED PURLINS

- production halls
- warehouses
- service buildings (workshop, service, car wash, storage, garage, etc.)
- lightweight residential buildings
- solar panel support structures



In our offer we have purlins with the standard base sizes used in Hungary (41/47mm or 66/74mm), but we can also offer the custom sizes mentioned above. Production lead times are typically 1–3 weeks, depending on quantity, type and drilling. Purlins C extensions are also available (except for C100mm), which are always smaller than the size of the purlins ordered.



SINUSOIDAL SHEET, CORRUGATED SHEET

S18 sinusoidal sheet, also known as sinusoidal trapezoidal sheet or corrugated sheet, can be used as roofing material and as external and internal wall cladding in the construction and renovation of residential, agricultural, industrial and commercial buildings.

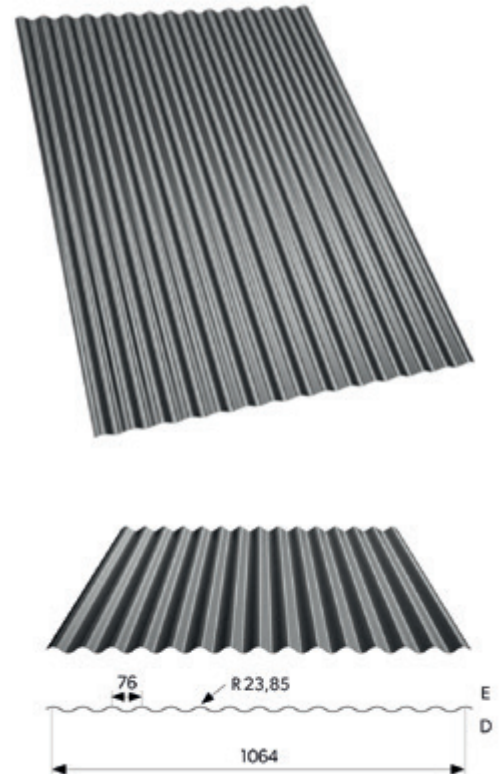
In recent years, trapezoidal sheet has taken over the role of sinusoidal sheet in many cases, but its similarity makes it an excellent replacement for slate roofs, and it is also an ideal choice for the façade cladding of buildings with a sophisticated aesthetic appearance.

TECHNICAL CHARACTERISTICS

Raw material	colored galvanized steel sheet, coated on one side with polyester
Nominal thickness	0,40 mm – 0,70 mm
Useful width	1064 mm
Overall width	1100 mm
Profile height	18 mm
Weight	3–7 kg/m ²

PRODUCTION CHARACTERISTICS

- S18 sinusoidal sheet is available in nominal thicknesses of 0.4–0.7 mm depending on the requirements of the building
- standard length of modules 500–8500mm
- more than 25 matt and glossy color options available







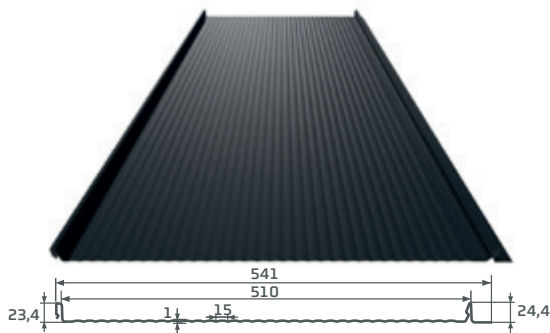
PRE-RIBBED METAL SHEET

Cladding made of pre-ribbed plate panels is elegant and fits in well with any architectural solution. The click-joint roof cladding is installed as a flat panel with a snap-on connection. The result is always perfect, whether it's an old, renovated or new building, with ribbed joints, buildings look elegant, reminiscent of classic roofs.

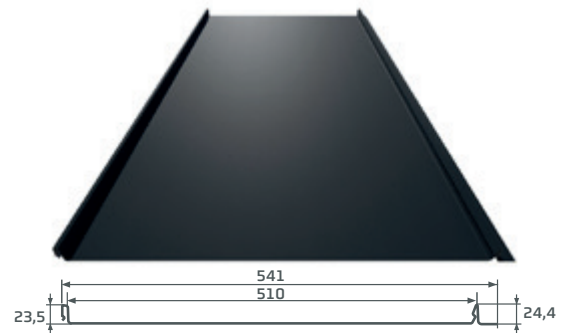
THOR PRE-RIBBED METAL SHEET

THOR premium pre-ribbed metal sheet

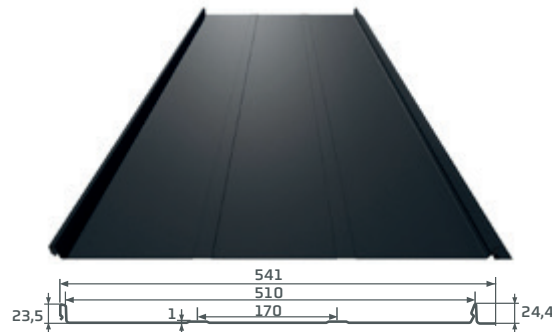
The THOR pre-fabricated roof and wall panel combines the quality of modern building materials with traditional roofing solutions. The appearance reminiscent of traditional standing seam roofs with a click system will never go out of style, and it is becoming increasingly popular as roofing for newly built residential areas, holiday homes, and family houses. We offer our THOR pre-fabricated panel in four different surface finishes.



MICRO



FLAT



RIB

TECHNICAL CHARACTERISTICS

Material thickness	0,45 - 0,60 mm
Useful width	510 mm
Overall width	541 mm
Max. length	500-8000 mm
Rib height	24,4 mm

PROPERTIES

- Simple and quick installation
- Hidden screw fastening, no visible fasteners
- Aesthetic appearance for steep-pitched roofs
- Longitudinal stiffening ribs to increase the roof's resistance
- Can be installed on roofs with a minimum slope of 8°







GUTTER SYSTEM

The gutter appears to be a seemingly indispensable part of various buildings: its function is "only" to collect and drain rainwater (rainwater, snow melt) from the roof. But this is more important than we think! A well-constructed gutter system protects the façade from soaking (stained walls, falling plaster, water ingress) and the foundation from possible subsidence. We can say that the condition and functioning of gutters is not only an aesthetic issue. In Hungary, we mostly see suspended stormwater drainage systems (fixed by gutter supports and mounted under the eaves). This is because they are easy to install, maintain and replace.

GUTTER SYSTEM

DESIGN, SIZE

THE DESIGN OF THE GUTTER SYSTEM

The design of the gutter system (the cross-section of the gutter, the number of outlets) depends mainly on the dimensions of the roof: mainly on the size (horizontal projection) and slope of the roof surface, and on the precipitation conditions in the area.

The cross-section of gutters can be semi-circular or rectangular, but there is no real difference in function (drainage). In Hungary, semi-circular sewers have become more common because they are more durable, drain water faster and are cheaper.

The slope of the gutter should be at least 5mm/1m, i.e. 0.5 percent, but it is important to ensure that there is no reverse slope on a section, as water can stop in the gutter.

The steel gutters are fixed together by means of expansion joints, soldering and/or riveting.



NOWADAYS, WHEN CHOOSING A GUTTER SYSTEM, THERE ARE SEVERAL ASPECTS TO CONSIDER IN ADDITION TO RAINWATER DRAINAGE, SUCH AS:

- raw material [we recommend steel gutter]
- lifetime
- easy to install
- the quality of the links between the different elements
- aesthetics
- the various accessories and fittings and their availability
- the duration of the guarantee provided by the manufacturer

GUTTERS

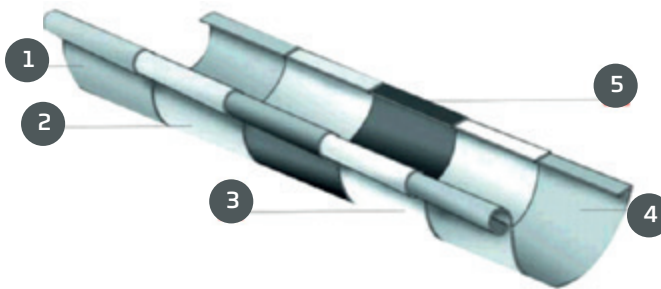
RAW MATERIAL AND COATING SYSTEM

Gutters are exposed to a variety of stresses, such as: occasional acid rain (atmospheric corrosion), thermal expansion (due to temperature fluctuations), mechanical stress (due to the weight of snow sliding on them in winter), and UV radiation (which can weaken the durability of the coating sooner for certain types). With the right choice of materials and thoughtful design, this can be avoided.



GUTTER RAW MATERIAL

In Hungary, gutters are manufactured and marketed in a variety of materials, including galvanized (colored) steel, plastic (rigid PVC), aluminum, and less commonly copper and galvanized steel. Natural or colored galvanized steel gutters are high strength, corrosion resistant and have the lowest coefficient of thermal expansion of all gutter materials. Available in different designs (external or internal flange), finishes and colors.



1-Steel, 2-Galvanic layer, 3-Primer layer, 4-Passivating layer, 5-Prelaq NOVA

GUTTER COATING SYSTEM

Five layers protecting the sheet metal give each element corrosion resistance and an extremely long service life. This means that the BILKA system retains its resilience for an extremely long time, and maintenance only consists of cleaning the gutters.

GUTTER SYSTEM

ELEMENTS

The BILKA gutter system consists of 14 perfectly interlocking elements, preventing rainwater from running down the building wall. Each element has an important role to play, so check the guttering system you are buying or have already installed to ensure that the elements shown in the diagram below are complete.



1. Gutters
2. Drain pipe
3. Inner edge
4. Outer edge
5. Cutter-connection element
6. Endplate
7. Gutter support
8. Twisted hook
9. Gutter support 160
10. Combined support
11. Gutter suspension strap
12. Gutter-drainpipe connector
13. 60° pipe elbow
14. Transition piece
15. Drain pipe clamp
16. 60° outflow elbow
17. Funnel
18. Os drain pipe branching

OTHER ACCESSORIES

For a longer service life, it is advisable to install snow guards on the roof to protect the gutter and the supporting elements (and people passing under the gutter) from mechanical stress caused by excess snow and ice. If there are trees near the roof, it is a good idea to install a leaf catcher in the inlet stub of the drainage system to keep leaves and branches out, saving the dangerous task of cleaning the drain, preventing clogging and preventing rainwater from falling over the edge of the drain.

EXTERNAL AND INTERNAL FLANGE GUTTER SYSTEM

EXTERNAL FLANGE SYSTEM

The elements of the external flange system are manufactured using Swedish technology and are made of top-quality Swedish steel (0.6 mm), galvanized (275 g/m²) on both sides and coated with Prelaq Nova (2×50 microns). Thanks to the Prelaq Nova coating, the products have an exceptionally smooth surface, high color stability and exceptional resistance to rain and airborne pollutants. The external flanged gutter system is available in two sizes – 150/100 and 125/90 – and 12 color options. Thanks to the choice of sizes and colors, you can create countless unique combinations to best match the color of your roof.

TECHNICAL CHARACTERISTICS

Use	outdoor
Paint coating thickness	50 µm/50 µm
Paint coating thickness tolerance	6 µm
Brightness	1T (dark) – 2T (glossy) EN 13523–2
Max. working ambient temperature	+100 °C
UV resistance rating	RUV3
Corrosion resistance rating	RC4

INTERNAL FLANGE SYSTEM

The internal flanged gutter is made of hot-dip galvanized steel with a color coating system. Its color fastness is due to the fact that the coating is applied to the galvanized steel before the product is manufactured, rather than being a post-painted product. It provides an excellent solution for UV radiation and variable weather conditions

WHY WE RECOMMEND IT?

- Thanks to its steel material, it is extremely strong and can withstand heavy snow loads
- The gutter is minimally susceptible to thermal expansion due to the winter-summer temperature difference
- Thanks to its wide range of colors, it blends well with the façade and roof color of the finished house







ACCESSORIES

ACCESSORIES

EDGE-BENT TIN ELEMENTS

Everything you need for the roof: gable flashings, wall flashings, drip trays, cone elements. We can also manufacture edge-bent tin products in custom sizes and according to drawings. Some elements are available in stock at a unit price or at a price per running meter or square meter.



Drip tray



Wall flashing



Metal roof tile cone element



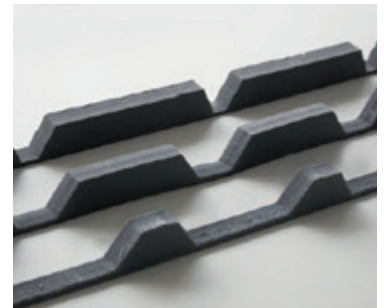
Trapezoidal plate cone



Gable flashing

SEALING SPONGE, SEALING PROFILE

Polyfoam sealing sponge, sealing profile for trapezoidal sheet and metal roof tiles. We can provide a suitable sealing profile for any trapezoidal sheet and metal roof tile or sandwich panel that we sell and manufacture. A sealing sponge can be used to ensure a proper seal at the lower fixing points and in the gaps under the cone element. It prevents dust, insects, birds, snow and moisture from entering the roof structure through the gaps.





FIXING SCREWS

Hex head and Opel screws for fixing to wood, metal and sheet metal.

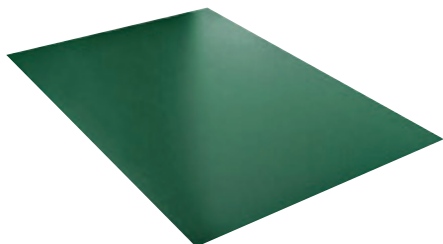
For proper fastening, our company offers color-matched screws for roof sheathing or tin edge bends. Depending on what you want to fix the elements to, we offer three types of fixing screws:

- Fixing to wood: Self-drilling hex head plate screw with EPDM washer (4.8×35mm)
- Fixing to metal: Self-drilling hex head plate screw with EPDM washer 4.8×19mm)
- Fixing to plate: Eyebolt with EPDM washer (4.8×20mm)

SNOW GUARD

The snow guard is used for stopping and chopping sliding snow and ice falling from the roof.

It prevents the gutter from being overloaded at the same time. The powder coated small triangles bent from steel sheet are available in the same RAL colors as the trapezoidal sheet or metal roof tiles.



FLAT SHEET

The raw material for tin products, which is sold cut into slabs. The flat sheets are produced on a separate production line, where the 1250mm wide steel rolls can be cut to centimeter lengths. After cutting to size, the flat sheets can be used mainly for edge bending of tin elements.

TRAPEZOIDAL SHEET ROOFLIGHT

Polyester trapezoidal sheet rooflight element for T18 and T35 models. Cutting the rooflight element is easy with an angle grinder (flex). Thanks to its high light transmittance, it is widely used as a rooflight for industrial halls or residential terraces.

PROPERTIES

- high light transmittance
- resistant to heat and frost
- resistant to UV radiation



BIRD COMB

Prevents birds and larger insects from getting under the roofing material. The bird comb should be installed under the roofing, parallel to the eaves line.

Packaging: 1 rm
Color: black.



ROOF OUTLET

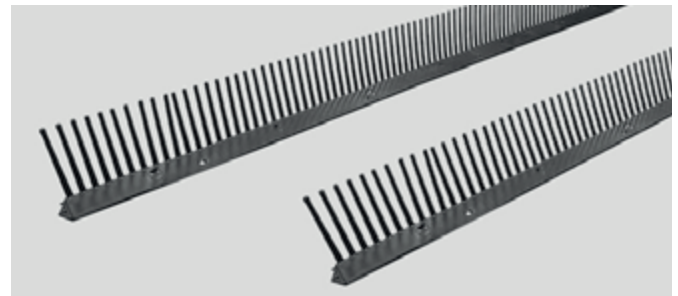
Roof outlets provide quick, easy and safe access to the roof for maintenance and roof protection.

GLASS ROOF OUTLET

Recommended mainly for unoccupied attics, it can be used mainly for ventilation, with an upward opening window sash that can be fixed in three different positions.

SHEET METAL ROOF OUTLET

A sheet metal roof outlet is an edge-bent element made of sheet steel of the same material and color as the metal roof tile, used primarily for roof access.



VAPOUR-PERMEABLE ROOF MEMBRANE

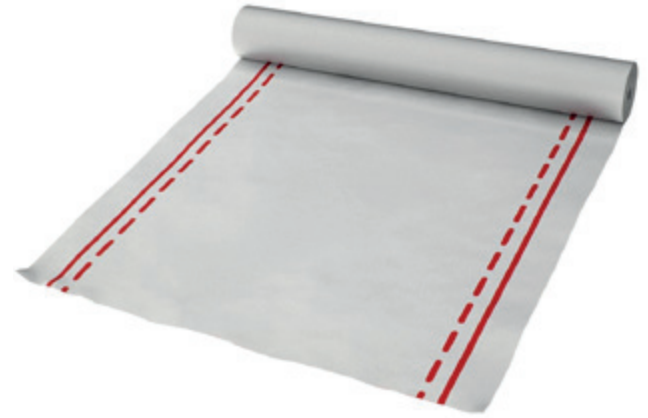
A vapor-permeable roof membrane lets moisture through, but not condensation from the roof.

It prevents dust and moisture from entering the attic in single-ventilated roofs. The 180 g membrane is completely waterproof, protects the insulation from rain and snow, and provides excellent wind-proofing.

Packaging: 1.5 m × 50 m roll = 75 m²/roll

Specific weight: 95–180g/m²

Use: The membrane should be installed parallel to the gutter and leave at least 10 cm overlap.

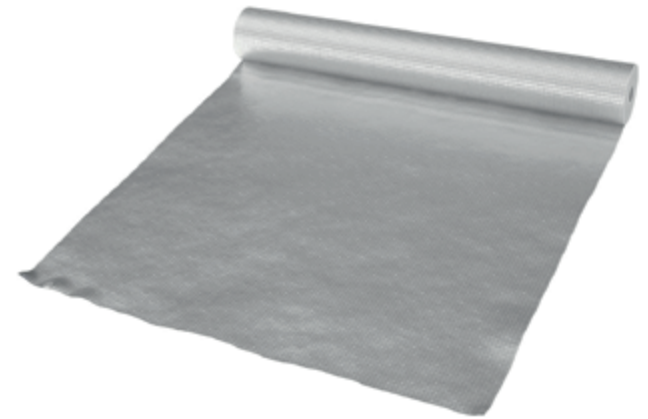


VAPOUR-BARRIER MEMBRANE

A vapor-barrier membrane should be installed on the inside of the roof insulation. It prevents moisture from entering directly into the insulation, which could lead to mold and fungal growth. It is recommended for double-ventilated roof layering.

Packaging: 1.5 m × 50 m roll = 75 m²/roll

Usage: The membrane should be installed parallel to the gutter, leaving at least 15–20 cm overlap, and all overlaps and fixing points should be sealed with special tape.



RIDGE-VENTILATION TAPE

It ensures proper roof ventilation and prevents birds and bugs from getting under the roofing material. The two edges of the reel are taped for efficient and quick installation.

Available colors: RAL 8004, RAL 8017, RAL 9005

Packaging: 5 m/roll

Width: 310mm





COLOR RANGE

TRAPEZOIDAL METAL SHEET, METAL ROOF TILE COLOR RANGE

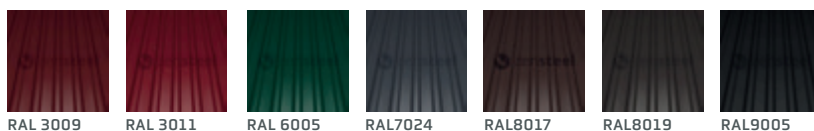
STANDARD COLORS



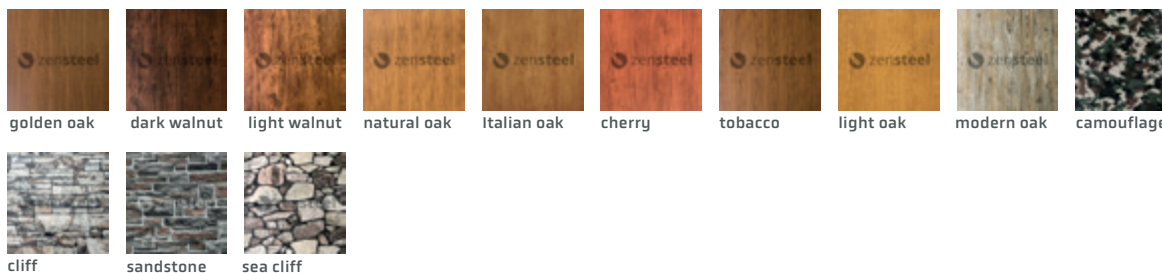
MATT COLORS



PETRA MATT COLORS – 30 YEARS WARRANTY PLATES



EXTRA PATTERNS



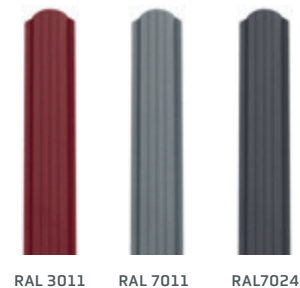
DAKO FENCE PANEL

COLOR RANGE

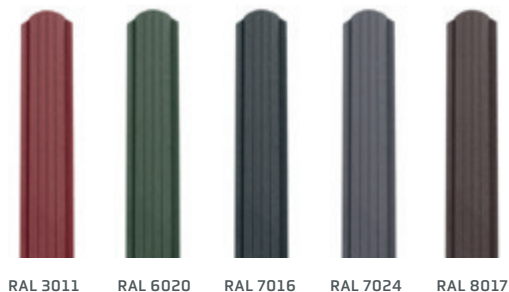
STANDARD COLORS



PUR EXTRA



MATT COLORS



PUR MATT



EXTRA PATTERNS







INFORMATION

TRANSPORT INFORMATION

We advise all our customers to agree the terms and conditions of receipt and delivery with our colleagues at the offer stage!

On-site pick-up

If you transport or have transported the goods ordered by your own or hired means of transport, we can only load the goods ordered onto the appropriate vehicle.

At our site, loading is done by forklift truck, and only the accessories have to be loaded manually by our colleagues. In case of manual packing, our colleagues can put the customer at the end of the packing sequence. For manual packing, please always provide the appropriate number of helpers from the customer.

Since loading on the wrong means of transport is time-consuming – and therefore loss-making for our company – we are not able to help you move the goods in this case.

Some examples for clarity of vision:

- we are unable to load a 6000mm trapezoidal metal sheet on a 2000mm trailer
- 5-6000mm metal roof tile cannot be stacked on a roof rack without a wooden support

- We are not able to load material on top of the horsebox
- In all cases where we consider the vehicle to be unacceptable or dangerous, our company will make an offer for delivery or it is up to the customer to provide a suitable means of transport.

Zensteel® –Door-to-door delivery

Our company undertakes the delivery of the ordered products to the site, thus sparing the customer the inconvenience of transport. As the cost of a lift depends on many factors, ask our colleagues for a quote!

Other important information about transport:

Once production has been completed, our colleague will contact you by phone to discuss possible delivery dates.

Deliveries are made on working days

Goods can be picked up at our premises from 8:00 to 15:30

Only specific delivery days and times can be agreed with our colleagues, it is only possible to arrange a delivery at a precise time in individual cases!

The customer must take care of receiving the product.

Unloading the product is always the responsibility of the customer! Our drivers are responsible for delivering the product to the site, but not for unloading it.

The products we manufacture can easily be damaged in case of improper handling, so we always recommend following the loading instructions!

On receipt, any damage, defects or shortages must always be indicated in writing on the delivery note. This is the only way our company can handle complaints.

We put underlay wood under the metal roof tile over 4m, which is deposited, so if the customer returns it, our company will credit the amount.

If you have any further questions about delivery, please contact us:

Phone number: +36 30 590 6676

E-mail: logisztika@zensteel.hu



STORAGE INFORMATION

The sheet products ordered and already delivered (or delivered by our company) need to be protected from certain weather conditions, because the coated sheet reacts differently in a stack than when installed on the roof. For example: high winds, rain followed by sunshine. The plates must also be protected from damage (scratches, dents), as this can cause problems in the long term. There are stronger coatings, which are more colorfast, more resistant to mechanical damage and offer superior UV protection, please contact our colleagues for more information.

The recommended maximum storage period for trapezoidal sheets and metal roof tiles, sandwich panels, fence panels and tin products (eaves, edge bending) after manufacture is 45 days, i.e. for warranty purposes, installation is recommended within 45 days (from date of manufacture), but the product should not be stored beyond this period, except in accordance with the following instructions (if for some reason the material needs to be stored for a longer period):

- under cover
- preferably away from direct heat radiation
- away from moisture
- tilting the stack (to allow any condensation to escape)
- if stored outside, covered and ventilated and with spacers between the plates

In the case of outdoor storage, it is best to take precautions by unpacking the sheets one by one. Be careful, because if moisture gets in between the sheets and cannot escape and ventilate, the coating (color) of the sheet can become stained, the sheets can stick together and the color can separate from the steel core.

When storing, if you need to move the sheets, make sure that you lift them by their edges and do not slide them over each other, as tiny dirt particles can scratch the surface. These can be remedied in most cases with touch-up paint and do not affect the lifespan.

The edges of the plate are cutting and can easily cause injury, be careful when storing and moving, use cut-resistant gloves!



SITES



OUR SITE IN GYERMELY

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+ 36 (30) 792 4924

graffits.tamas@zensteel.hu

www.zensteel.hu



OUR SITE IN ZSÁMBÉK

2072 Zsámbék, Herceghalmi street 1-3.

+36 (30) 167 4274

jesch.marton@zensteel.hu

www.lemezoutlet.hu



OUR SITE IN TATA

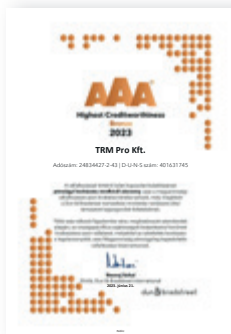
2890 Tata, Kalapács street

+36 (30) 773 0716

www.zensteel.hu

GTC access: <https://www.zensteel.hu/images/letoltesek/aszf-zensteel.pdf>

OUR RATINGS





SITES

2821 Gyermely, Kossuth Lajos street 24.

2072 Zsámbék, Herceghalmi street 1-3.

2890 Tata, Kalapács street

CENTRAL CONTACT DETAILS

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