

— ROOF · FACADE · COLD ROOMS

Sandwich panels

Profiles, accessories and technical documentation

16

PANEL TYPES

40–200 mm

INSULATION THICKNESS

13.6 m

MAXIMUM LENGTH

A2-s1,d0

FIRE CLASS, STONE WOOL

— NAVIGATION

Contents

Products, materials and technical information in one catalogue.

01	Technical guide and materials Structure, metal facings, finishes, insulation and thermal calculation	03-14
02	Roof panels 5S GV / 3H DV / 5H DV / GRP / membrane / acoustic	15-27
03	Facade panels 7F / 8S / GV / DV / GVT / DVT / GVT Acoustic	28-41
04	Facade compositions Combinations of standard, micro-profiled and siding profiles	42-44
05	Cold rooms MODULIX CS / configuration and technical sheet	45-47
06	Profiles and profiled sheets C and U profiles / 18/76, 27/200 and 38/151 sheets	48-52
07	Accessories and fixings Flashings, corners, ridges, gutters and screws	53-59
08	Load tables Roof, facade, membrane and GRP	60-65
09	Transport, installation and storage Loading, handling, fixing, sealing and protection	66-74

All dimensions are given in the units shown. Numerical values and references in the product sheets and load tables are taken from the technical documentation.

01

Technical guide and materials

Structure, metal facings, finishes, insulation and thermal calculation

Everything to know before choosing a panel: build-up, materials, paint systems, insulating cores and thermal calculation.

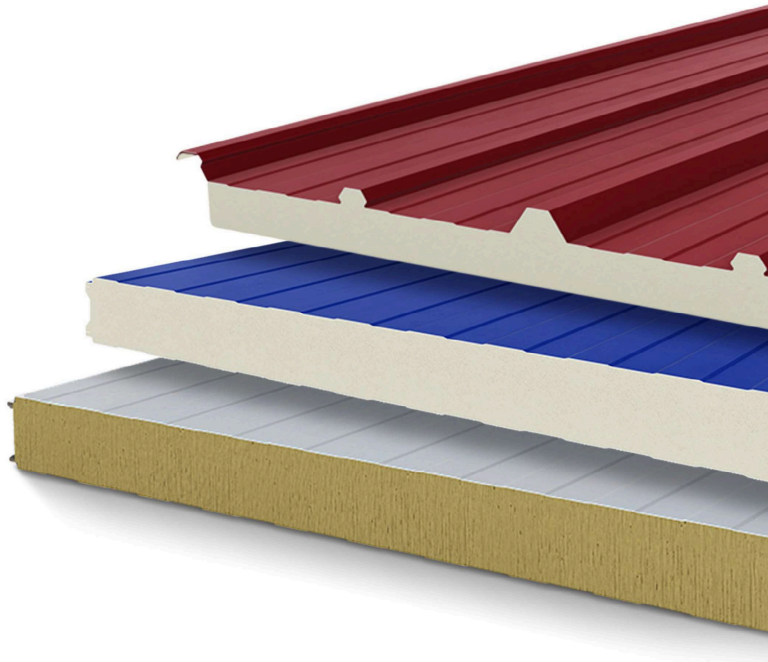
Panel construction	04
Colour and length	10
Thermal calculation	13

Materials and finishes	05
Insulating cores	11

— 01 / TECHNICAL GUIDE

Sandwich panel construction

Composite structure. Outer facings. Insulating core.



A · OUTER FACING

B · INSULATING CORE

A · INNER FACING

Three components, one system

A sandwich panel is a building element made of two outer facings and an insulating core, bonded so that they work together under load.

Composite action gives a higher load-bearing capacity than the layers taken separately, by taking up shear and bending stresses.

A

Outer facings

Pre-painted galvanised steel, pre-painted aluminium or stainless steel. In some configurations one facing can be a PVC/TPO membrane or glass-reinforced polyester (GRP). The facings contribute to stiffness, impact protection, corrosion resistance and sealing.

B

Core and adhesion

The core bonds the facings, provides insulation and contributes to the strength of the assembly. The range includes PUR, PIR and stone mineral wool. With PUR, adhesion forms during foaming; for PIR and mineral wool, specific adhesives ensure the integrity of the panel.

01 / MATERIALS

Pre-painted galvanised steel

Corrosion protection and RAL colour finishes.

DX51D+Z

STEEL GRADE

100–275 g/m²

ZINC COATING

approx. 5 µm

PRIMER COAT

Metal facings are selected according to TS EN 10327 and thickness tolerances are assessed to TS EN 10143. Hot-dip galvanising applies a protective zinc layer of 100-275 g/m² according to TS EN 10346.

Coil Coating finish

The sheet is cleaned, primed with a coat of about 5 microns and painted to the required thickness according to TS EN 10169. Finishes are available to suit appearance and conditions of use.



PROPERTY	VALUE / SPECIFICATION	REFERENCE
Steel grade	DX51D+Z	TS EN 10346
Thickness tolerance	±0.05 mm for 0.4 < t ≤ 0.6 mm	TS EN 10143
Tensile strength	500 MPa (max.)	TS EN 10346
Elongation at break	22% (min.)	TS EN 10346
Zinc coating	100-275 g/m ² ; hot-dip galvanising	TS EN 10346
Finishes	Polyester, PVDF, plastisol, PVC, polyurethane	TS EN 10169

BGS = pre-painted galvanised steel. BAL = pre-painted aluminium. The abbreviations are kept to identify the technical options.

01 / MATERIALS

Pre-painted aluminium

Low weight, workability and corrosion resistance.

AW 3000

ALLOY SERIES

175 MPa

TENSILE STRENGTH

H16-H26

TEMPER

Aluminium is light, durable and easy to work. The surface is cleaned, primed and painted by the Coil Coating process. Colours and finish types can be adapted to aesthetic and protection requirements.



PROPERTY	VALUE	REFERENCE
Alloy	AW 3000 series	TS EN 573-3+A1
Temper	H16 - H26	TS EN 485-2
Thickness tolerance	± 0.05 mm for $0.5 < t \leq 0.6$ mm	TS EN 485-4
Yield strength	150 MPa	TS EN 485-2
Tensile strength	175 MPa	TS EN 485-2
Elongation at break	3% (min.)	TS EN 485-2
Finishes	Polyester, PVDF, plastisol, PVC, polyurethane	-

The metal facing and finish are selected according to the exposure environment and the intended use of the project.

01 / MATERIALS

Stainless steel

Facings for applications with durability and hygiene requirements.

10.5%

MINIMUM CHROMIUM

304

COMMON GRADE

600–650 °C

HIGH OXIDATION RESISTANCE

Stainless steels contain at least 10.5% chromium. They are also used for cold-room panels thanks to their corrosion resistance and service life. The initially matte surface can be given a glossy finish by processing.

Grade 304 is one of the common options. The documentation indicates high oxidation resistance up to 600–650 °C.

PROPERTY	SPECIFICATION
Material reference	TS EN 10088-2-EQV; grade 304
0.2% proof stress	200–500 MPa
Tensile strength	500–700 MPa
Hardness HRB	500–700
Corrosion resistance	Very good in dry atmospheres; good in neutral, non-humid environments.
Behaviour at temperature	The documentation indicates no scaling up to 870 °C. In oxidising, humid environments with chlorides, stress corrosion cracking may occur.

01 / FINISHES

Paint systems

Protection options for steel or aluminium facings.

20
μm

Polyester / PE

Minimum 20 μm. Wide choice of colours and gloss levels; economical and flexible, with good resistance to abrasion, corrosion, moisture and impact.

25
μm

PVDF

Minimum 25 μm. High colour and gloss stability together with high chemical resistance.

100
μm

Plastisol / PVC

Minimum 100 μm. Very good corrosion and moisture resistance; food-safe variants available. Lower colour and gloss stability.

20
μm

Polyurethane

Typical thickness 20 μm; thicker applications are possible. Polyamide reinforcement increases scratch and abrasion resistance. Can be applied smooth or textured.

120
μm

Laminated PVC film

Minimum 120 μm, depending on use. Film laminated onto galvanised steel or aluminium, with high corrosion and moisture resistance, often used in cold storage.

The bar shows the minimum / typical coating thickness relative to the thickest system (120 μm).

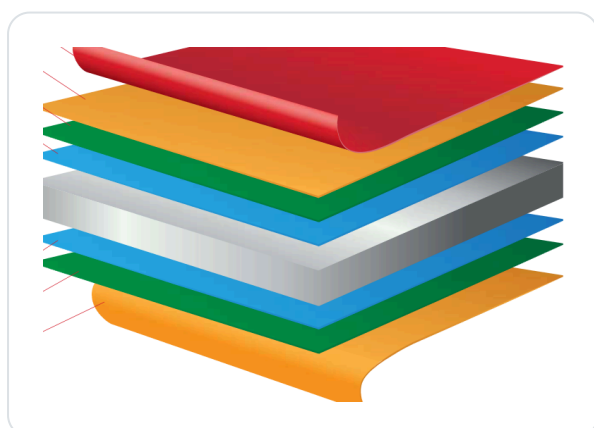
01 / FINISHES

Coating comparison

Comparative ratings and the layered structure of the metal facing.

FINISH	CODE	BENDING	HARDNESS	CHEMICAL	HUMIDITY	CORROSION	COLOUR / GLOSS
Polyester	SP	3	3	2	2	3	2
Textured polyester	SP WR	3	4	2	2	3	3
High-durability polyester	HD SP	3	3	2	3	3	3
Polyamide-modified polyester	PUR-PA	3	4	2	3	3	2
Polyamide-modified polyurethane	PUR-PA	3	4	2	3	3	2
PVDF	PVDF	4	2	4	4	3	4
Plastisol	PVC (P)	4	1	3	3	4	1

Scale: 1 = poor; 2 = fair; 3 = good; 4 = very good.



Coil Coating: layered protection

- 01 Surface cleaning: the metal must be dry, clean and degreased.
- 02 Priming and drying for uniform adhesion and extra protection.
- 03 Successive application of colour coats according to the RAL code.
- 04 The top coat contributes to colour stability, UV resistance and appearance.

Build-up from the outside: top coat, primer, passivation, zinc / aluzinc, steel sheet, zinc / aluzinc, passivation and primer on the back face.

01 / COLOUR

Panel colour and length

Recommendations for limiting thermal deformation.

Dark colours absorb more solar energy. The temperature difference between the panel facings can cause the outer sheet to expand or contract. The lengths below are the limits recommended in the technical documentation.

CORE	APPLICATION	LIGHT COLOURS	DARK COLOURS
PUR / PIR	Facade / cold room	12.00 m	6.00 m
PUR / PIR	Roof	13.60 m	10.00 m
Stone wool	Facade	10.00 m	6.00 m
Stone wool	Roof	12.00 m	9.00 m

Stated conditions: inner sheet 0.40 mm, outer sheet 0.50 mm and 40 mm core; reference: TS EN 13902. For dark colours the length is confirmed technically; surface flatness is not guaranteed in the supplied documentation.

RAL groups from the technical documentation

LIGHT

1000	1001	1002	1003	1004	1013	1014	1015	1016	1017
1018	1021	1023	1028	1033	1035	2000	2003	2008	2011
2012	5012	5015	5018	5024	6018	6019	6021	6027	6034
7035	7038	7040	7047	9001	9002	9003	9010	9016	9018

DARK

1019	2004	3000	3002	3003	3005	3011	3013	5002	5005
5009	5010	5011	5022	6000	6003	6005	6011	6020	6029
6033	7000	7015	7016	7022	7024	7026	7031	7037	7038
7043	8011	8012	8014	8016	8017	8019	8022	8023	9004
9005	9006	9007	9017	9022					

RAL 7038 appears in both groups in the supplied data; its group is confirmed when choosing the finish. Shades shown are indicative; the final colour is chosen from a physical sample.

— 01 / INSULATION

Insulating cores

PUR, PIR and stone mineral wool.

PUR

PUR / Polyurethane

A polymer formed by reacting isocyanate and polyol. In lamination it provides insulation and adhesion to the facings. It is light, wear-resistant and used for thermal and acoustic insulation. The documentation lists variants with reaction to fire classes B-s2,d0 and C-s3,d0.

PIR

PIR / Polyisocyanurate

Reacting polyols with PMDI or MDI creates a rigid three-dimensional network with high heat resistance. Compared with PUR, PIR has improved fire behaviour. The range sheets state B-s1,d0; the material forms a charred layer when exposed to flame. The classification is checked for the exact panel configuration.

MW

Stone mineral wool

Fibrous material made from volcanic rock melted at 1,350-1,400 °C. Provides thermal insulation, sound absorption and class A2-s1,d0 in the configurations shown. Lamellas oriented perpendicular to the lamination direction contribute to composite action and load-bearing capacity. The material is recyclable.



STONE MINERAL WOOL



POLYURETHANE FOAM

01 / SPECIAL FACINGS

Membranes and GRP facings

Solutions for low-slope roofs and demanding environments.

PVC / TPO membrane

For slopes between 2% and 7%, the documentation recommends PVC or TPO membrane panels. For slopes above 7%, panels with two metal facings are used. The configuration depends on slope, building height, location and environmental conditions.



2-7%

MEMBRANE ROOF



>7%

METAL FACINGS



GRP

Glass-reinforced polyester: a lightweight composite resistant to chemicals, acidic environments, corrosion and abrasion.

Applications: halls with chemical exposure, cattle farms, poultry farms and food-processing plants.

GRP (glass-reinforced polyester) is called CTP in Romanian; the product codes keep the CTP abbreviation.

01 / THERMAL CALCULATION

Choosing the insulation thickness

The relationship between thermal conductivity, thickness and transmittance.

A lower U-value means better thermal insulation. The formulas below give a simplified estimate of the insulating layer.

$$R = d / \lambda$$

THERMAL RESISTANCE

$$U = 1 / R$$

TRANSMITTANCE

$$d = \lambda / U$$

INSULATION THICKNESS

SYMBOL	MEANING	UNIT
λ	Thermal conductivity	W/(m K)
d	Insulation thickness	m
R	Thermal resistance	m ² K/W
U	Thermal transmittance	W/(m ² K)

Example for U = 0.20 W/(m²K)

For PUR/PIR, $\lambda = 0.022$ W/(m K):

$$d = (1 / 0.20) \times 0.022 = 0.11 \text{ m} = \mathbf{110 \text{ mm}}$$

For stone wool, the product sheets give $\lambda = 0.038$ W/(m K).

The calculation above is the simplified example from the documentation. The final choice depends on the complete build-up, thermal bridges and project conditions.

The panels can be used for industrial buildings, cold stores, agricultural and commercial buildings. Thickness is matched to thermal requirements and the load-bearing check.

01 / THERMAL REFERENCE

Reference U-values

TS 825:2024 table reproduced to preserve the technical data.

The table below refers to the climate zones of Türkiye defined in TS 825:2024. It is kept as a reference from the documentation and does not represent the climate zoning of other countries.

CLIMATE ZONE	DESCRIPTION	FACADE W/(M²K)	ROOF W/(M²K)
1	Very warm	0.45	0.35
2	Warm	0.40	0.30
3	Temperate	0.40	0.30
4	Cold	0.35	0.25
5	Very cold	0.25	0.20
6	Extremely cold	0.25	0.20

For TS 825:2024, the documentation refers to the localities in Annex D. For projects in other countries, the requirements applicable at the site are used.

Technical data / reading the catalogue

Numerical values and references in the product sheets and load tables have been preserved.
Abbreviations, symbols and units are presented consistently.

02

Roof panels

5S GV / 3H DV / 5H DV / GRP / membrane / acoustic

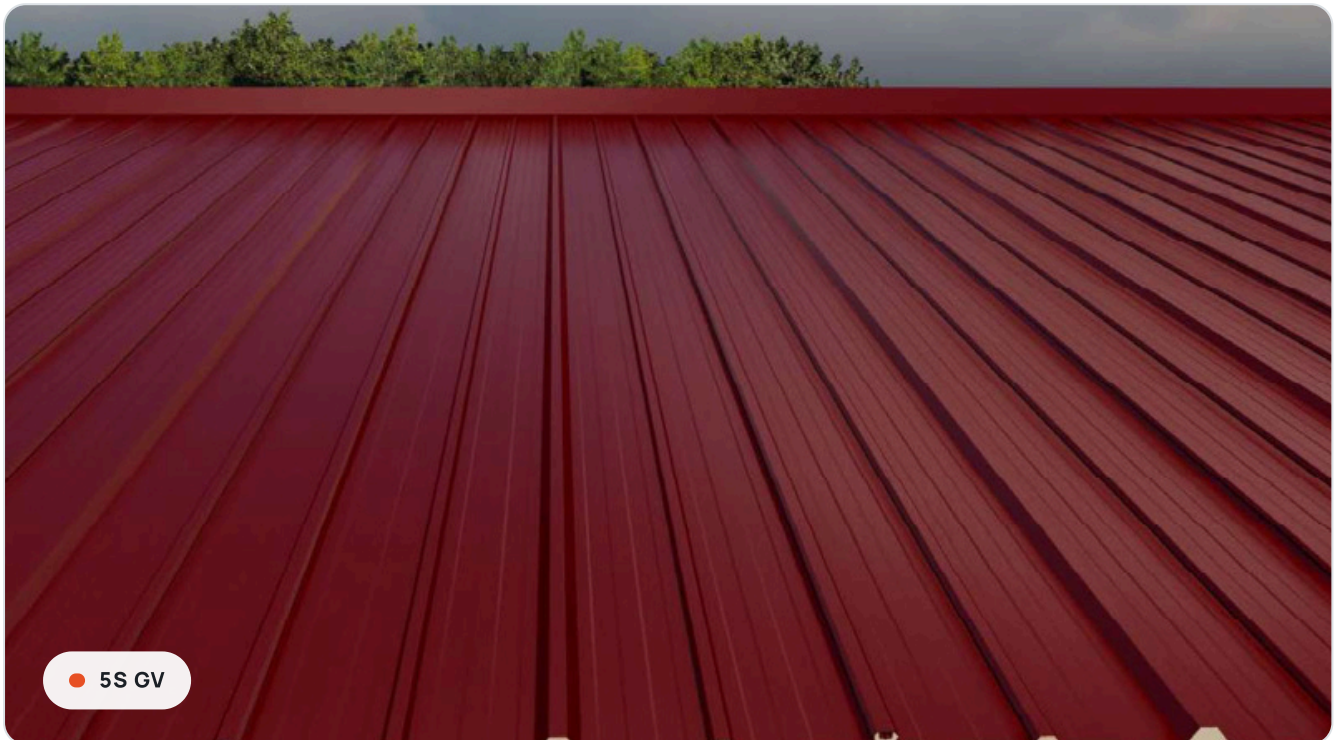
3- and 5-rib profiles with PUR/PIR or stone wool core; PVC/TPO membrane, GRP and perforated acoustic facing variants.

MODULIX 5S GV	16	MODULIX 3H DV	18
MODULIX 5H DV	20	MODULIX 5H DV CTP	22
MODULIX 5H DV PVC/TPO	23	MODULIX 5H DVT	24
MODULIX 5H DVT PVC/TPO	26	MODULIX 5H DVT ACOUSTIC	27

— 02 / ROOF PANELS

MODULIX 5S GV

5-rib panel, compatible with PV systems.



INSULATING CORE

PUR / PIR

FIXING TYPE

Concealed

LENGTHS

2,500-13,600 mm

INSULATION THICKNESSES [MM]



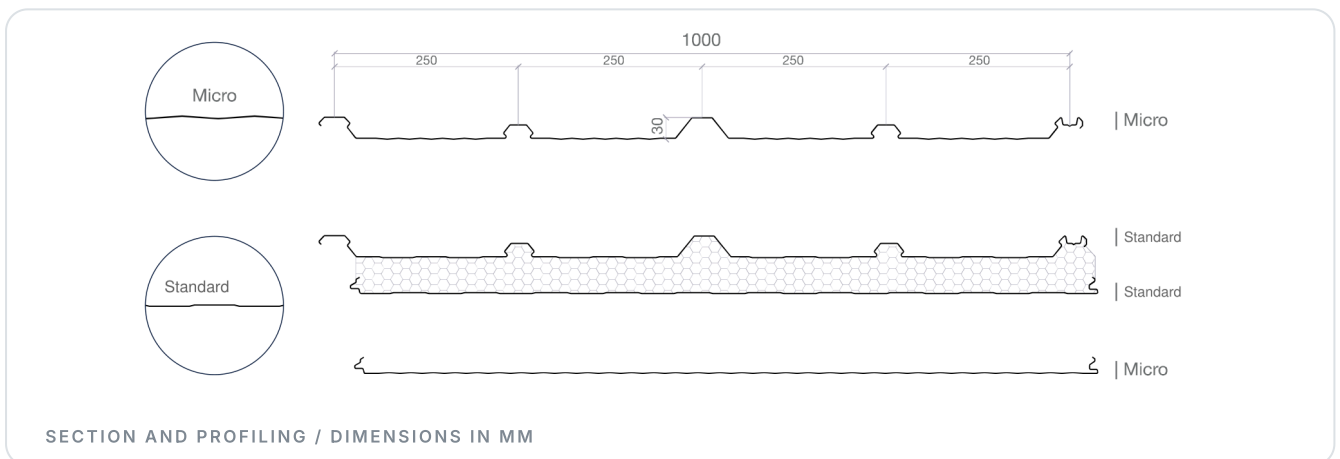
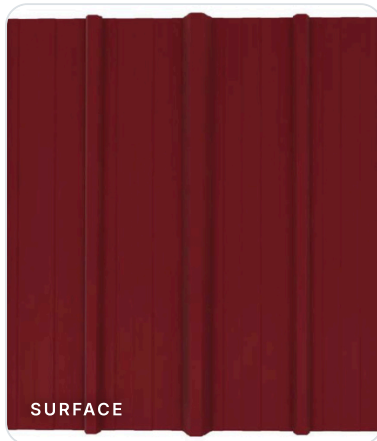
Features and options

- 01** 5-rib geometry for high load-bearing capacity under snow and wind loads.
- 02** The concealed-screw joint helps seal the roof.
- 03** Solar fixing points every 50 cm. Ventilation equipment, walkways and PV systems can be mounted with connection accessories, without perforating the panel.
- 04** Facings of pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 05** Finishes: polyester (PE), PVDF, plastisol and PVC film.
- 06** PUR/PIR core for thermal insulation; 95% closed-cell structure.

— TECHNICAL SHEET / ROOF

MODULIX 5S GV

Geometry, joint and technical characteristics.



Insulation thicknesses	40 / 50 / 60 / 80 / 100 / 120 mm	Core density	PUR 38-40 (±2) kg/m ³ PIR 38-42 (±2) kg/m ³
Inner sheet	0.40 / 0.50 / 0.60 / 0.70 mm	Thermal conductivity λ	0.022 W/(m K) / EN 13165
Outer sheet	0.50 / 0.60 / 0.70 mm	Water absorption	2% by volume / 168 hours Stated reference: EN ISO 354
Reaction to fire class	PIR B-s1,d0 / EN 13501-1	Closed-cell content	95% / EN 14509
Water vapour diffusion resistance	30-100 / EN 12086	Finishes	Polyester, PVDF, plastisol, PVC
Dimensional stability	Level DS (TH) 11	Nominal width in drawing	1,000 mm

— 02 / ROOF PANELS

MODULIX 3H DV

Panel with 3 high ribs and fast installation.



INSULATING CORE

PUR / PIR

FIXING TYPE

Visible

LENGTHS

2,500-13,600 mm

INSULATION THICKNESSES [MM]



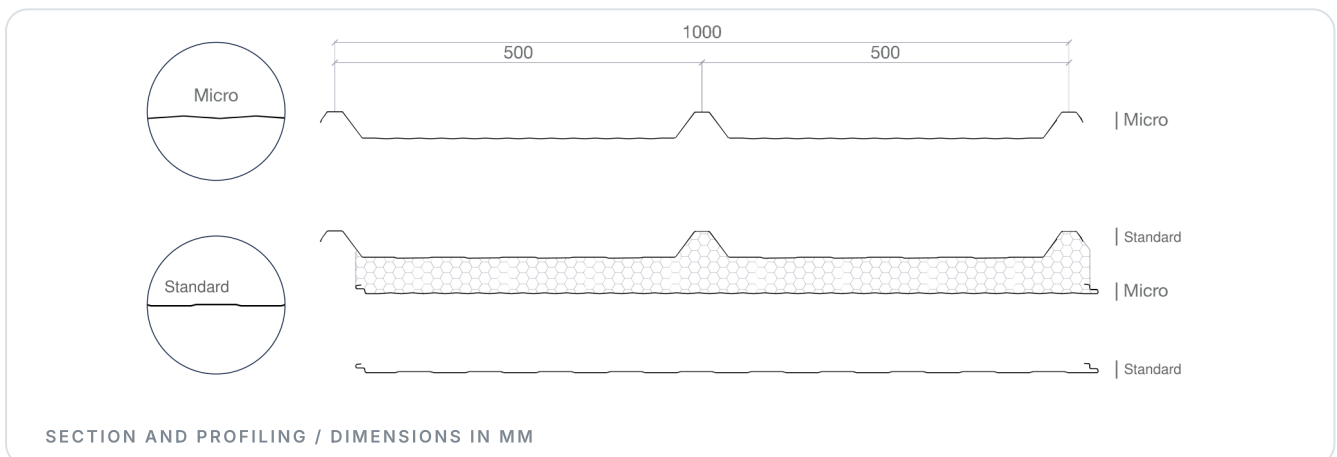
Features and options

- 01** The 3-high-rib section combines load-bearing capacity with an economical solution.
- 02** Visible-screw joint for easy installation.
- 03** Facings of pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 04** Finishes: polyester (PE), PVDF, plastisol and PVC film.
- 05** PUR/PIR core for thermal insulation, 95% closed-cell structure.
- 06** Geometry designed for long service life.

— TECHNICAL SHEET / ROOF

MODULIX 3H DV

Geometry, joint and technical characteristics.



Insulation thicknesses	40 / 50 / 60 / 80 / 100 / 120 mm	Core density	PUR 38-40 (±2) kg/m ³ PIR 38-42 (±2) kg/m ³
Inner sheet	0.35 / 0.40 / 0.50 / 0.60 / 0.70 mm	Thermal conductivity λ	0.022 W/(m K) / EN 13165
Outer sheet	0.45 / 0.50 / 0.60 / 0.70 mm	Water absorption	2% by volume / 168 hours Stated reference: EN ISO 354
Reaction to fire class	PIR B-s1,d0 / EN 13501-1	Closed-cell content	95% / EN 14509
Water vapour diffusion resistance	30-100 / EN 12086	Finishes	Polyester, PVDF, plastisol, PVC
Dimensional stability	Level DS (TH) 11	Nominal width in drawing	1,000 mm

— 02 / ROOF PANELS

MODULIX 5H DV

Panel with 5 high ribs, for demanding roofs.



INSULATING CORE

PUR / PIR

FIXING TYPE

Visible

LENGTHS

2,500-13,600 mm

INSULATION THICKNESSES [MM]



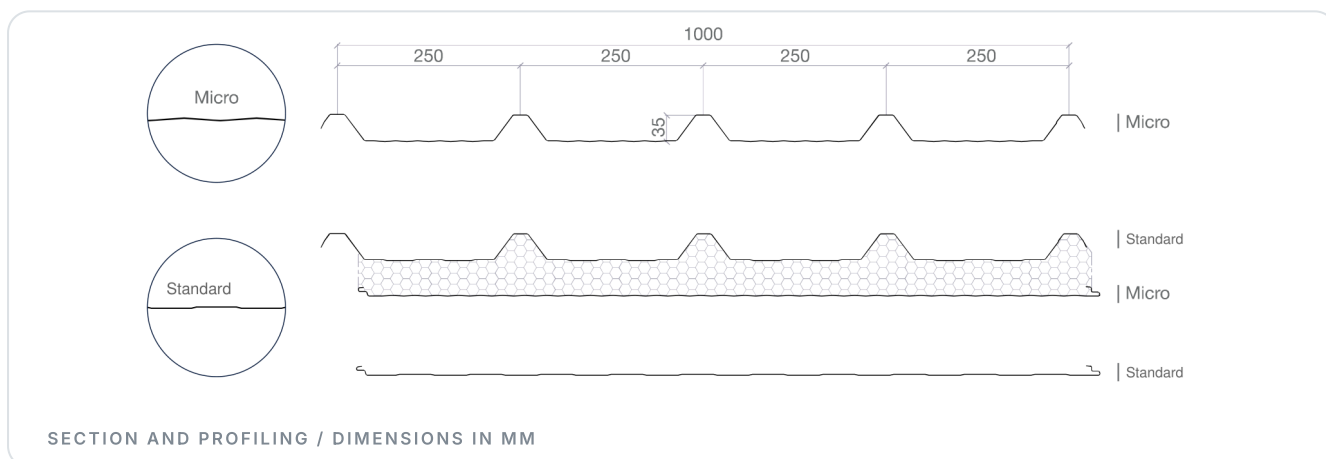
Features and options

- 01** The 5 ribs and section geometry provide high load-bearing capacity under snow and wind loads.
- 02** Visible-screw joint for easy installation.
- 03** Facings of pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 04** Finishes: polyester (PE), PVDF, plastisol and PVC film.
- 05** PUR/PIR core for thermal insulation; 95% closed-cell structure.
- 06** Economical solution designed for long service life.

— TECHNICAL SHEET / ROOF

MODULIX 5H DV

Geometry, joint and technical characteristics.



Insulation thicknesses	40 / 50 / 60 / 80 / 100 / 120 mm	Core density	PUR 38-40 (±2) kg/m ³ PIR 38-42 (±2) kg/m ³
Inner sheet	0.35 / 0.40 / 0.50 / 0.60 / 0.70 mm	Thermal conductivity λ	0.022 W/(m K) / EN 13165
Outer sheet	0.45 / 0.50 / 0.60 / 0.70 mm	Water absorption	2% by volume / 168 hours Stated reference: EN ISO 354
Reaction to fire class	PIR B-s1,d0 / EN 13501-1	Closed-cell content	95% / EN 14509
Water vapour diffusion resistance	30-100 / EN 12086	Finishes	Polyester, PVDF, plastisol, PVC
Dimensional stability	Level DS (TH) 11	Nominal width in drawing	1,000 mm

— 02 / ROOF PANELS

MODULIX 5H DV CTP

GRP inner facing for chemical and agricultural environments.



● 5H DV CTP

INSULATING CORE

PUR / PIR

FIXING TYPE

Visible

LENGTHS

2,500-13,600 mm

INSULATION THICKNESSES [MM]



Features and options

- 01** 5 high ribs and visible-screw joint.
- 02** Outer facing of pre-painted galvanised steel; inner facing of GRP.
- 03** GRP resists corrosion in chemical and acidic environments and withstands many solutions, salts, alcohols and hydrocarbons.
- 04** Applications: farms, animal shelters, poultry houses and industrial spaces with chemical exposure.
- 05** Exterior finishes: PE, PVDF, plastisol, PVC.
PUR/PIR core with 95% closed cells.

PARAMETER	OPTIONS
Core	PUR / PIR
Insulation thicknesses	40 / 50 / 60 / 80 / 100 / 120 mm
Lengths	2,500-13,600 mm

— 02 / ROOF PANELS

MODULIX 5H DV PVC/TPO

Membrane panel for low-slope roofs.



● 5H DV PVC/TPO

INSULATING CORE

PUR / PIR

FIXING TYPE

Visible

LENGTHS

2,500-13,600 mm

INSULATION THICKNESSES [MM]



Features and options

- 01** 5 high ribs and visible-screw joint.
- 02** The PVC or TPO membrane provides waterproofing; the PUR/PIR core provides thermal insulation.
- 03** Configuration with a membrane facing and a metal facing of pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 04** Finishes for the metal facing: PE, PVDF, plastisol, PVC.
- 05** Insulation with 95% closed-cell structure. Geometry with high load-bearing capacity.

PARAMETER	OPTIONS
Core	PUR / PIR
Insulation thicknesses	40 / 50 / 60 / 80 / 100 / 120 mm
Lengths	2,500-13,600 mm

— 02 / ROOF PANELS

MODULIX 5H DVT

Stone wool panel for thermal and fire protection.



INSULATING CORE

Stone wool

FIXING TYPE

Visible

LENGTHS

2,500-12,500 mm

INSULATION THICKNESSES [MM]



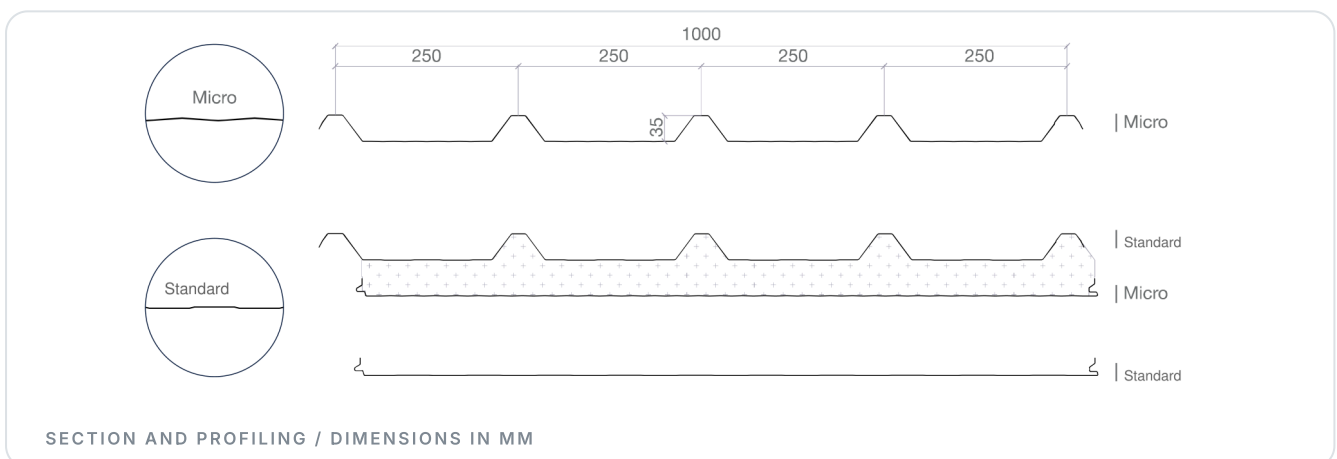
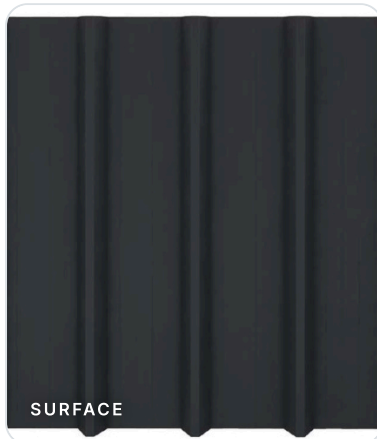
Features and options

- 01** 5 high ribs and visible-screw joint.
- 02** The section geometry contributes to load-bearing capacity.
- 03** Facings of pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 04** Finishes: polyester (PE), PVDF, plastisol and PVC film.
- 05** The stone wool core provides thermal insulation and fire performance.
- 06** Configuration designed for long service life.

— TECHNICAL SHEET / ROOF

MODULIX 5H DVT

Geometry, joint and technical characteristics.



Insulation thicknesses	50 / 60 / 80 / 100 / 120 / 150 mm	Core density	100 / 110 / 120 / 130 kg/m ³
Inner sheet	0.40 / 0.50 / 0.60 / 0.70 mm	Thermal conductivity λ	0.038 W/(m K) / EN 12667
Outer sheet	0.50 / 0.60 / 0.70 mm	Water absorption	2% by volume / 168 hours Stated reference: EN ISO 354
Reaction to fire class	A2-s1,d0 / TS EN 13501-1	Sound insulation Rw	30 dB
Water vapour diffusion resistance	1 / EN 12086	Finishes	Polyester, PVDF, plastisol, PVC
Available lengths	2,500-12,500 mm	Nominal width in drawing	1,000 mm

— 02 / ROOF PANELS

MODULIX 5H DVT PVC/TPO

PVC/TPO membrane and mineral core for low slopes.



● 5H DVT PVC/TPO

INSULATING CORE

Stone wool

FIXING TYPE

Visible

LENGTHS

2,500-12,500 mm

INSULATION THICKNESSES [MM]



Features and options

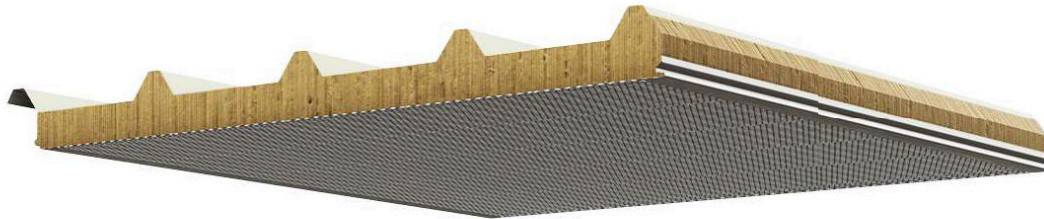
- 01** 5 high ribs and visible-screw joint.
- 02** The membrane combined with the mineral core provides thermal and acoustic insulation, waterproofing and fire performance.
- 03** The metal facing can be pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 04** Finishes: polyester (PE), PVDF, plastisol and PVC film.
- 05** Configuration designed for long service life.

PARAMETER	OPTIONS
Core	Stone wool
Insulation thicknesses	50 / 60 / 80 / 100 / 120 / 150 mm
Lengths	2,500-12,500 mm

— 02 / ROOF PANELS

MODULIX 5H DVT ACOUSTIC

Roof panel for sound insulation and absorption.



● 5H DVT ACOUSTIC

INSULATING CORE

Stone wool

FIXING TYPE

Visible

LENGTHS

2,500-12,500 mm

INSULATION THICKNESSES [MM]



Features and options

- 01 Section with 5 high ribs.
- 02 The stone wool core provides sound absorption and thermal insulation.
- 03 The perforated inner facing has a minimum thickness of 0.60 mm and helps improve acoustics.
- 04 Mineral core for improved fire behaviour.
- 05 Configuration designed for long service life.

PARAMETER	OPTIONS
Core	Stone wool
Insulation thicknesses	50 / 60 / 80 / 100 / 120 / 150 mm
Lengths	2,500-12,500 mm

Perforated inner facing: minimum 0.60 mm.

03

Facade panels

7F / 8S / GV / DV / GVT / DVT / GVT Acoustic

Facades with concealed or visible fixing; standard, micro-profiled, fluted or siding surfaces.

MODULIX 7F	29	MODULIX 8S	31
MODULIX GV	33	MODULIX DV	35
MODULIX GVT	37	MODULIX DVT	39
MODULIX GVT ACOUSTIC	41		

— 03 / FACADE PANELS

MODULIX 7F

Panel with 7 flutes, stiffness and an architectural look.



INSULATING CORE

PUR / PIR

FIXING TYPE

Concealed

LENGTHS

2,500-13,600 mm

INSULATION THICKNESSES [MM]



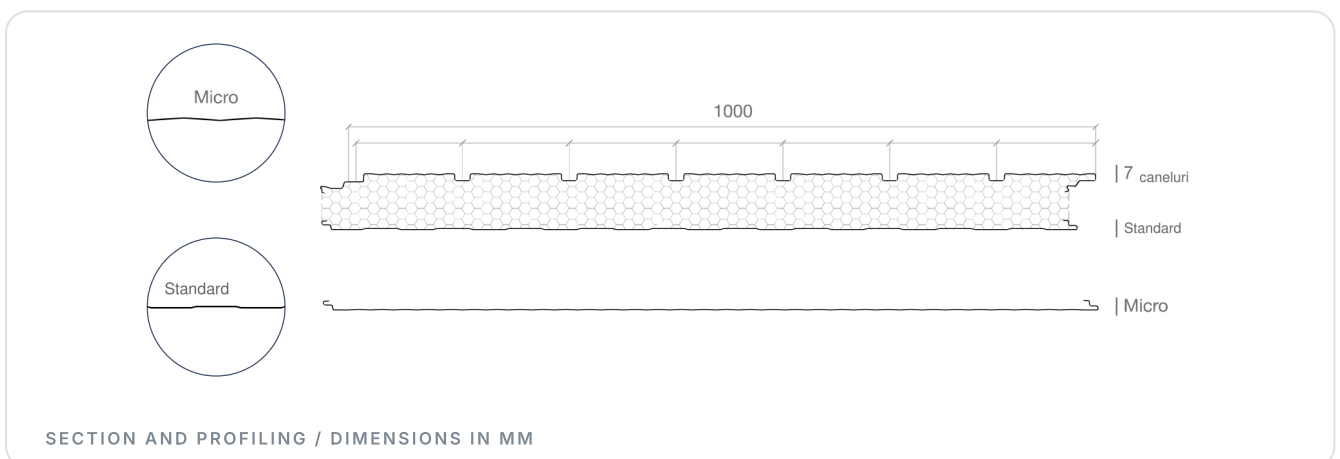
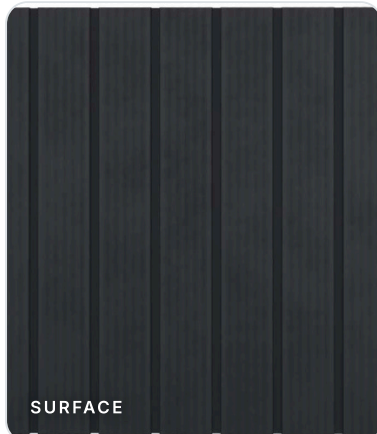
Features and options

- 01** Profile with 7 flutes for surface stiffness.
- 02** The joint hides the screws and contributes to sealing and a uniform look.
- 03** Facings of pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 04** Finishes: polyester (PE), PVDF, plastisol and PVC film.
- 05** PUR/PIR core with 95% closed cells. Wide range of colours.
- 06** Can be combined with concealed-fix facade panels.

— TECHNICAL SHEET / FACADE

MODULIX 7F

Geometry, joint and technical characteristics.



Insulation thicknesses	40 / 50 / 60 / 80 / 100 mm	Core density	PUR 38-40 (± 2) kg/m ³ PIR 38-42 (± 2) kg/m ³
Inner sheet	0.40 / 0.50 / 0.60 / 0.70 mm	Thermal conductivity λ	0.022 W/(m K) / EN 13165
Outer sheet	0.50 / 0.60 / 0.70 mm	Water absorption	2% by volume / 168 hours Stated reference: EN ISO 354
Reaction to fire class	PIR B-s1,d0 / EN 13501-1	Closed-cell content	95% / EN 14509
Water vapour diffusion resistance	30-100 / EN 12086	Finishes	Polyester, PVDF, plastisol, PVC
Dimensional stability	Level DS (TH) 11	Nominal width in drawing	1,000 mm

— 03 / FACADE PANELS

MODULIX 8S

Siding profile for facades with rhythm and texture.



INSULATING CORE

PUR / PIR

FIXING TYPE

Concealed

LENGTHS

2,500-13,600 mm

INSULATION THICKNESSES [MM]



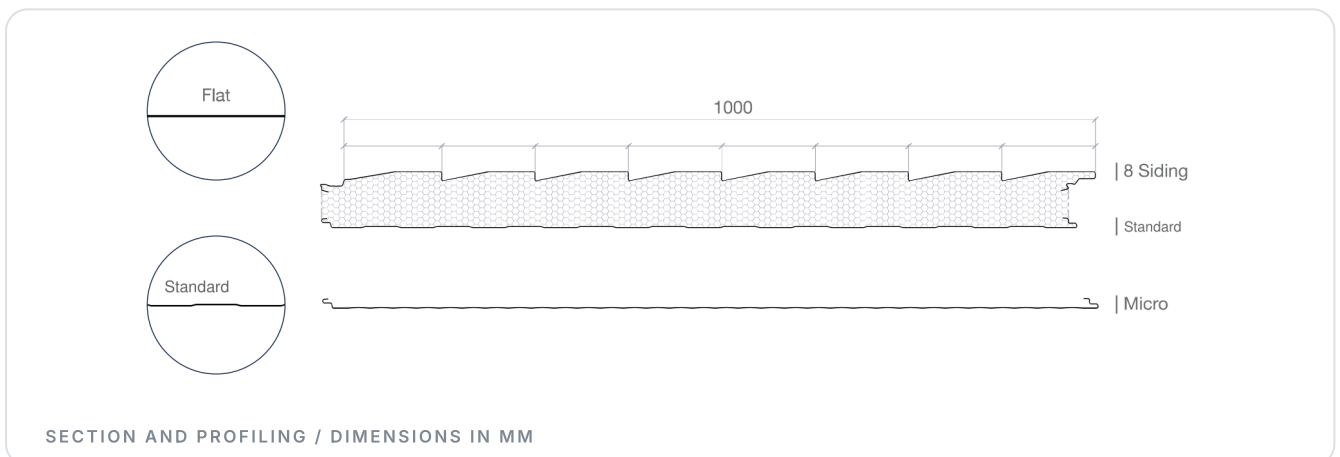
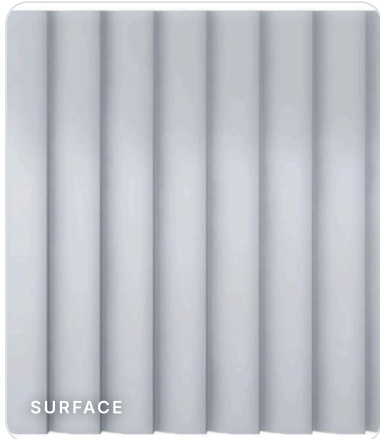
Features and options

- 01** Siding geometry, with insulation thicknesses from 40 mm.
- 02** Concealed fixing for sealing and visual continuity.
- 03** Facings of pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 04** Finishes: polyester (PE), PVDF, plastisol and PVC film.
- 05** PUR/PIR core with 95% closed cells. Wide range of colours.
- 06** Can be combined with concealed-fix facade panels.

— TECHNICAL SHEET / FACADE

MODULIX 8S

Geometry, joint and technical characteristics.



Insulation thicknesses	40 / 50 / 60 / 80 / 100 mm	Core density	PUR 38-40 (± 2) kg/m ³ PIR 38-42 (± 2) kg/m ³
Inner sheet	0.40 / 0.50 / 0.60 / 0.70 mm	Thermal conductivity λ	0.022 W/(m K) / EN 13165
Outer sheet	0.50 / 0.60 / 0.70 mm	Water absorption	2% by volume / 168 hours Stated reference: EN ISO 354
Reaction to fire class	PIR B-s1,d0 / EN 13501-1	Closed-cell content	95% / EN 14509
Water vapour diffusion resistance	30-100 / EN 12086	Finishes	Polyester, PVDF, plastisol, PVC
Dimensional stability	Level DS (TH) 11	Nominal width in drawing	1,000 mm

— 03 / FACADE PANELS

MODULIX GV

Standard or micro-profiled surfaces, with concealed screws.



INSULATING CORE

PUR / PIR

FIXING TYPE

Concealed

LENGTHS

2,500-13,600 mm

INSULATION THICKNESSES [MM]



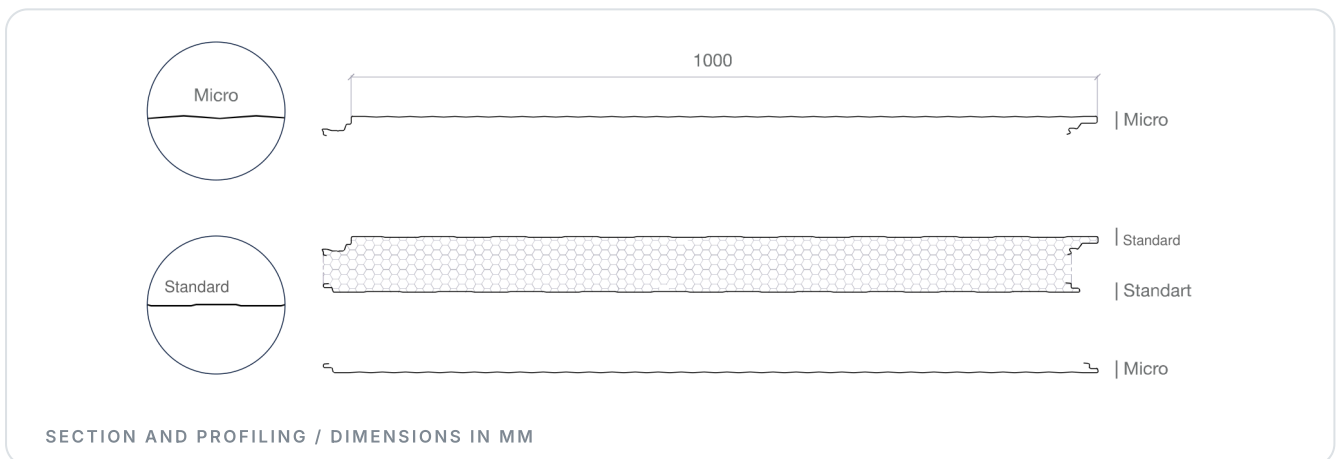
Features and options

- 01** Concealed fixing for sealing and a uniform look.
- 02** Available surfaces: standard and micro-profiled.
- 03** Facings of pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 04** Finishes: polyester (PE), PVDF, plastisol and PVC film.
- 05** PUR/PIR core with 95% closed cells. Wide range of colours.
- 06** Economical solution, visually compatible with the other concealed-fix facade panels.

— TECHNICAL SHEET / FACADE

MODULIX GV

Geometry, joint and technical characteristics.



Insulation thicknesses	40 / 50 / 60 / 80 / 100 mm	Core density	PUR 38-40 (±2) kg/m ³ PIR 38-42 (±2) kg/m ³
Inner sheet	0.40 / 0.50 / 0.60 / 0.70 mm	Thermal conductivity λ	0.022 W/(m K) / EN 13165
Outer sheet	0.50 / 0.60 / 0.70 mm	Water absorption	2% by volume / 168 hours Stated reference: EN ISO 354
Reaction to fire class	PIR B-s1,d0 / EN 13501-1	Closed-cell content	95% / EN 14509
Water vapour diffusion resistance	30-100 / EN 12086	Finishes	Polyester, PVDF, plastisol, PVC
Dimensional stability	Level DS (TH) 11	Nominal width in drawing	1,000 mm

— 03 / FACADE PANELS

MODULIX DV

Panel for containers and chilled spaces.



INSULATING CORE

PUR / PIR

FIXING TYPE

Visible

LENGTHS

2,500-13,600 mm

INSULATION THICKNESSES [MM]



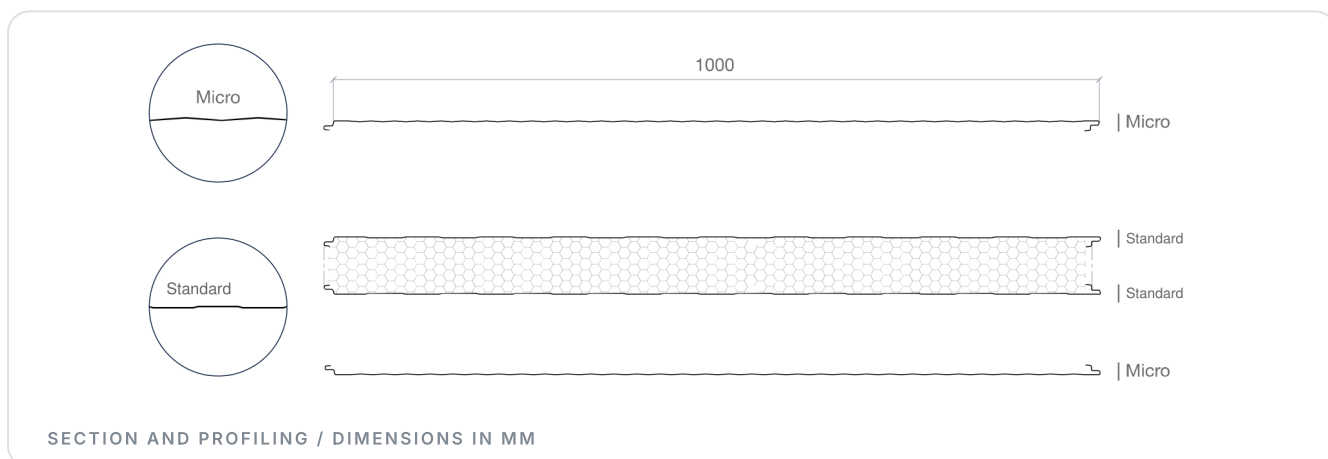
Features and options

- 01** Easy installation with a visible-screw joint.
- 02** Standard or micro-profiled surfaces. Available widths: 800-1,200 mm.
- 03** Facings of pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 04** Finishes: polyester (PE), PVDF, plastisol and PVC film.
- 05** PUR/PIR core with 95% closed cells, for thermal insulation.
- 06** Wide range of colours and a configuration for long service life.

— TECHNICAL SHEET / FACADE

MODULIX DV

Geometry, joint and technical characteristics.



Insulation thicknesses	40 / 50 / 60 mm	Core density	PUR 38-40 (±2) kg/m ³ PIR 38-42 (±2) kg/m ³
Inner sheet	0.35 / 0.40 / 0.50 / 0.60 / 0.70 mm	Thermal conductivity λ	0.022 W/(m K) / EN 13165
Outer sheet	0.45 / 0.50 / 0.60 / 0.70 mm	Water absorption	2% by volume / 168 hours Stated reference: EN ISO 354
Reaction to fire class	PIR B-s1,d0 / EN 13501-1	Closed-cell content	95% / EN 14509
Water vapour diffusion resistance	30-100 / EN 12086	Finishes	Polyester, PVDF, plastisol, PVC
Dimensional stability	Level DS (TH) 11	Nominal width in drawing	1,000 mm

— 03 / FACADE PANELS

MODULIX GVT

Facades with mineral core, thermal and acoustic insulation.



INSULATING CORE

Stone wool

FIXING TYPE

Concealed

LENGTHS

2,500-12,500 mm

INSULATION THICKNESSES [MM]



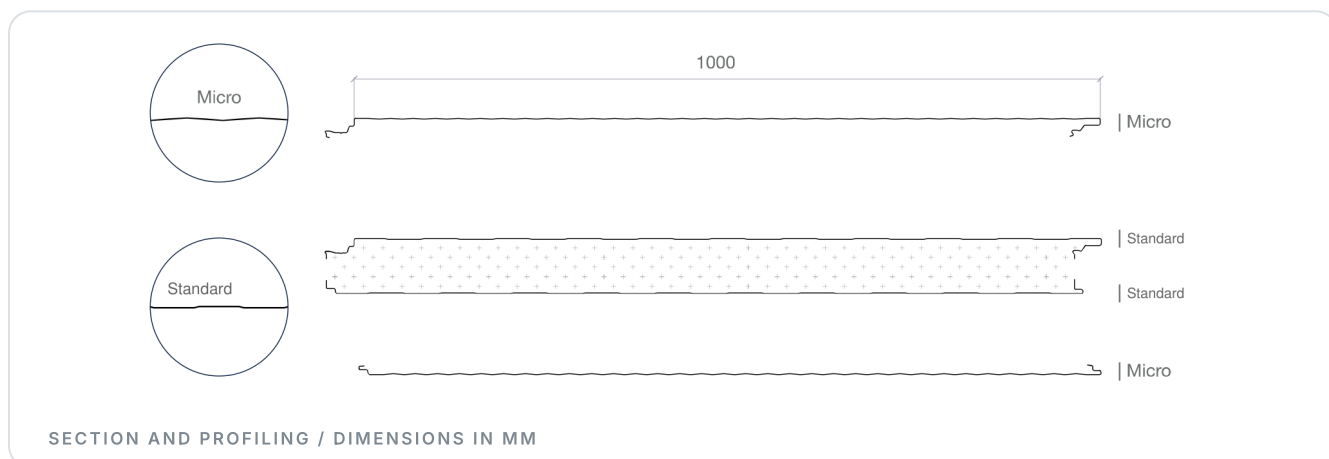
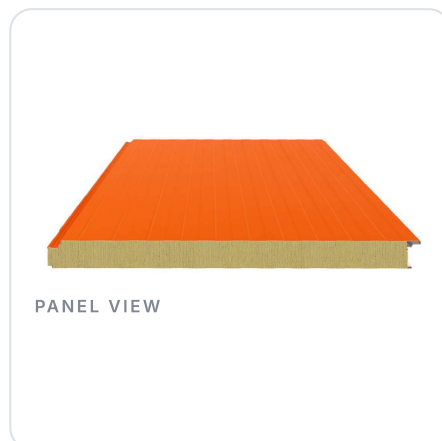
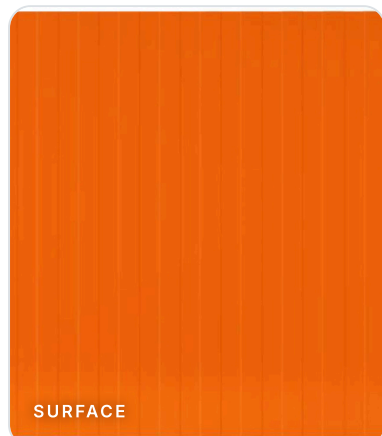
Features and options

- 01** Concealed fixing for sealing and a uniform look.
- 02** Standard or micro-profiled surfaces.
- 03** Facings of pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 04** Finishes: polyester (PE), PVDF, plastisol and PVC film.
- 05** The stone wool core provides thermal and acoustic insulation and fire performance.
- 06** Applications: industrial, commercial and public buildings and power plants. Wide range of colours.

— TECHNICAL SHEET / FACADE

MODULIX GVT

Geometry, joint and technical characteristics.



Insulation thicknesses	50 / 60 / 80 / 100 / 120 / 150 mm	Core density	100 / 110 / 120 / 130 kg/m ³
Inner sheet	0.40 / 0.50 / 0.60 / 0.70 mm	Thermal conductivity λ	0.038 W/(m K) / EN 12667
Outer sheet	0.50 / 0.60 / 0.70 mm	Water absorption	2% by volume / 168 hours Stated reference: EN ISO 354
Reaction to fire class	A2-s1,d0 / TS EN 13501-1	Sound insulation R_w	30 dB
Water vapour diffusion resistance	1 / EN 12086	Finishes	Polyester, PVDF, plastisol, PVC
Temperature resistance	600 °C	Nominal width in drawing	1,000 mm

— 03 / FACADE PANELS

MODULIX DVT

Mineral-core panel for containers and chilled spaces.



INSULATING CORE

Stone wool

FIXING TYPE

Visible

LENGTHS

2,500-12,500 mm

INSULATION THICKNESSES [MM]



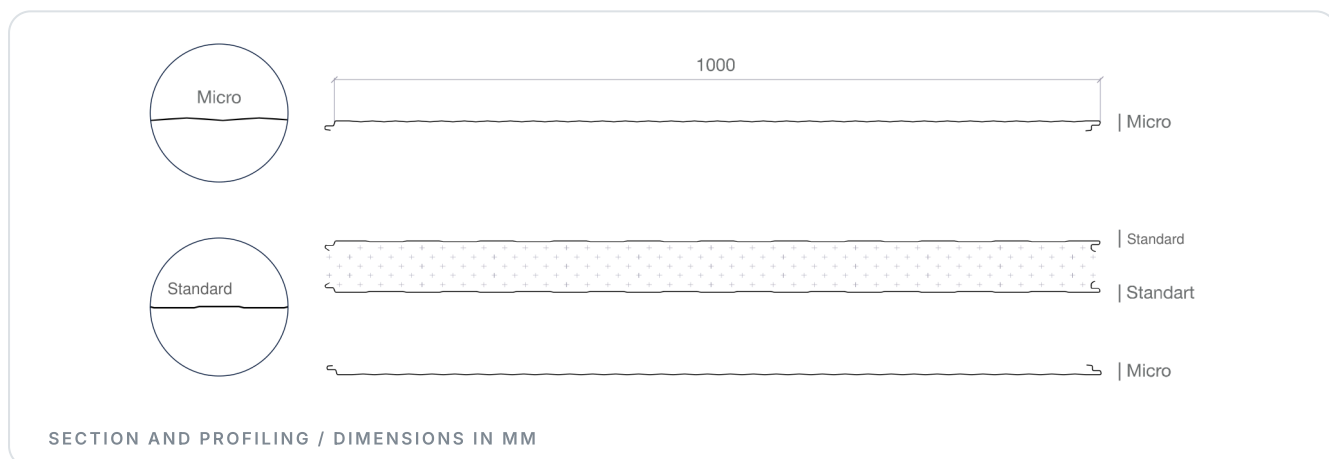
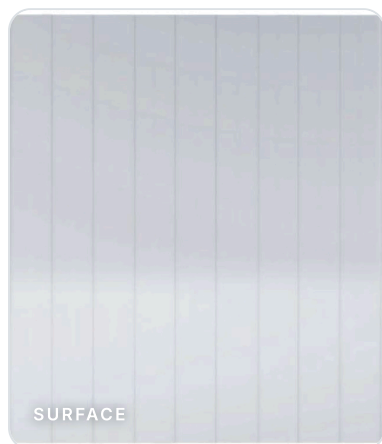
Features and options

- 01** Easy installation with a visible-screw joint.
- 02** Standard or micro-profiled surfaces. Available widths: 800-1,200 mm.
- 03** Facings of pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 04** Finishes: polyester (PE), PVDF, plastisol and PVC film.
- 05** Stone wool for thermal insulation and A2-s1,d0 fire performance.
- 06** Wide range of colours and a configuration for long service life.

— TECHNICAL SHEET / FACADE

MODULIX DVT

Geometry, joint and technical characteristics.

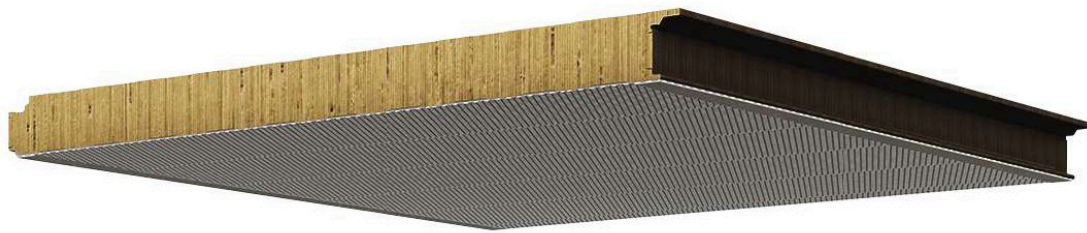


Insulation thicknesses	50 / 60 / 80 / 100 / 120 / 150 mm	Core density	100 / 110 / 120 / 130 kg/m ³
Inner sheet	0.40 / 0.50 / 0.60 / 0.70 mm	Thermal conductivity λ	0.038 W/(m K) / EN 12667
Outer sheet	0.50 / 0.60 / 0.70 mm	Water absorption	2% by volume / 168 hours Stated reference: EN ISO 354
Reaction to fire class	A2-s1,d0 / TS EN 13501-1	Sound insulation R_w	30 dB
Water vapour diffusion resistance	1 / EN 12086	Finishes	Polyester, PVDF, plastisol, PVC
Available lengths	2,500-12,500 mm	Nominal width in drawing	1,000 mm

— 03 / FACADE PANELS

MODULIX GVT ACOUSTIC

Facade panel for sound absorption and insulation.



● GVT ACOUSTIC

INSULATING CORE

Stone wool

FIXING TYPE

Concealed

LENGTHS

2,500-12,500 mm

INSULATION THICKNESSES [MM]



Features and options

- 01** The joint hides the screws and contributes to sealing and a uniform look.
- 02** The stone wool core has sound-absorbing properties.
- 03** Thermal insulation and improved fire behaviour thanks to the mineral core.
- 04** The perforated inner facing, minimum 0.60 mm thick, improves sound absorption.

PARAMETER	OPTIONS
Core	Stone wool
Insulation thicknesses	50 / 60 / 80 / 100 / 120 / 150 mm
Lengths	2,500-12,500 mm

Perforated inner facing: minimum 0.60 mm.

04

Facade compositions

Combinations of standard, micro-profiled and siding profiles

Concealed-fix profiles are combined for rhythm, bands and defining volumes.

Combinable textures

43

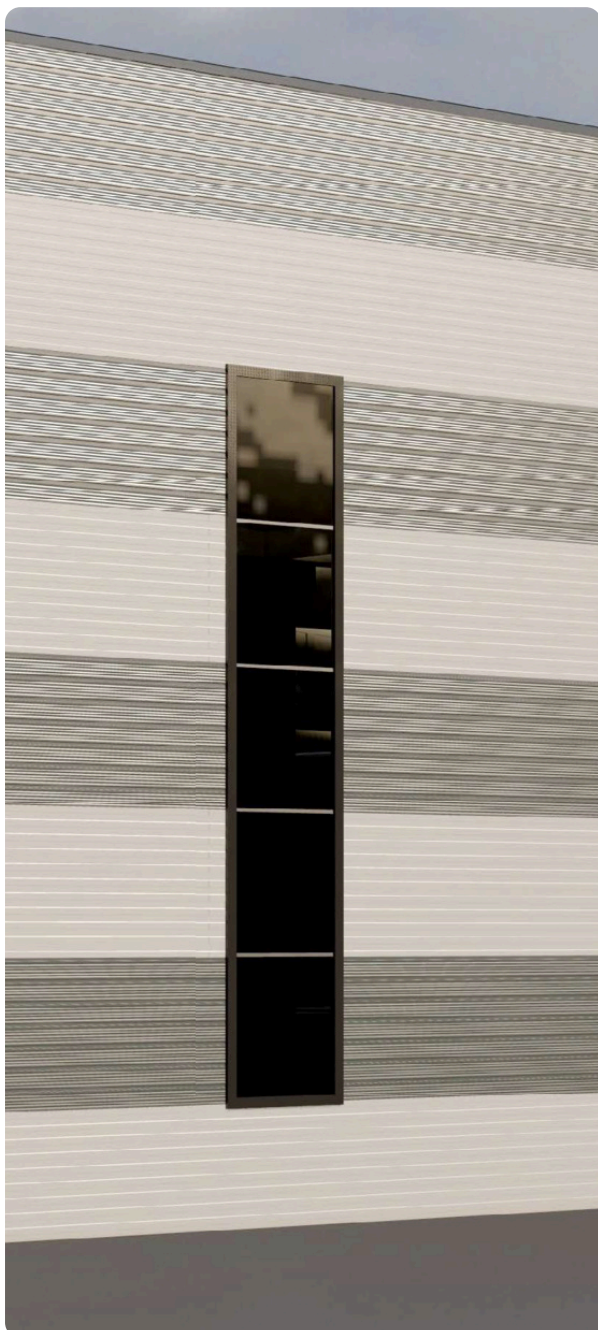
Combinations with micro-profiling

44

— 04 / FACADE COMPOSITIONS

Combinable textures

Concealed-fix panels for facades with rhythm and continuity.



GV STANDARD + 7F



8S + GV STANDARD

Alternating profiles makes it possible to define volumes and bands across the facade.

— 04 / FACADE COMPOSITIONS

Combinations with micro-profiling

Examples of finish combinations from the MODULIX range.



GV MICRO + 7F



GV MICRO + GV STANDARD



05

Cold rooms

MODULIX CS / configuration and technical sheet

Panel dedicated to cold stores and cold rooms, with a sealed joint and thicknesses up to 200 mm.

MODULIX CS

46

— 05 / COLD ROOMS

MODULIX CS

Panel dedicated to cold stores and cold rooms.



INSULATING CORE

PUR / PIR

FIXING TYPE

Sealed joint

LENGTHS

2,500-13,600 mm

INSULATION THICKNESSES [MM]



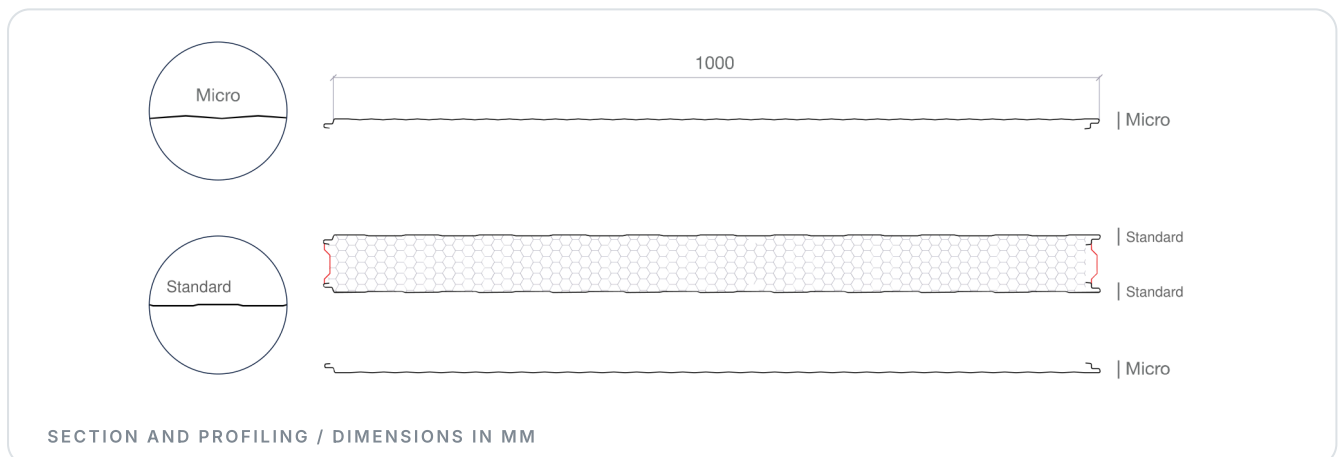
Features and options

- 01** Special joint for sealing and thermal insulation.
- 02** Standard or micro-profiled surfaces. Available widths: 800-1,200 mm.
- 03** Facings of pre-painted galvanised steel, pre-painted aluminium or stainless steel.
- 04** Finishes: polyester (PE), PVDF, plastisol and PVC film.
- 05** PUR/PIR core with 95% closed cells. Wide range of colours.
- 06** Insulation thicknesses: 80 / 100 / 120 / 150 / 180 / 200 mm.

— TECHNICAL SHEET / COLD ROOMS

MODULIX CS

Geometry, joint and technical characteristics.



Insulation thicknesses	80 / 100 / 120 / 150 / 180 / 200 mm	Core density	PUR 38-40 (±2) kg/m ³ PIR 38-42 (±2) kg/m ³
Inner sheet	0.40 / 0.50 / 0.60 / 0.70 mm	Thermal conductivity λ	0.022 W/(m K) / EN 13165
Outer sheet	0.50 / 0.60 / 0.70 mm	Water absorption	2% by volume / 168 hours Stated reference: EN ISO 354
Reaction to fire class	PIR B-s1,d0 / EN 13501-1	Closed-cell content	95% / EN 14509
Water vapour diffusion resistance	30-100 / EN 12086	Finishes	Polyester, PVDF, plastisol, PVC
Dimensional stability	Level DS (TH) 11	Nominal width in drawing	1,000 mm

06

Profiles and profiled sheets

C and U profiles / 18/76, 27/200 and 38/151 sheets

Structural elements and profiled sheets for roofs, facades, halls, warehouses and canopies.

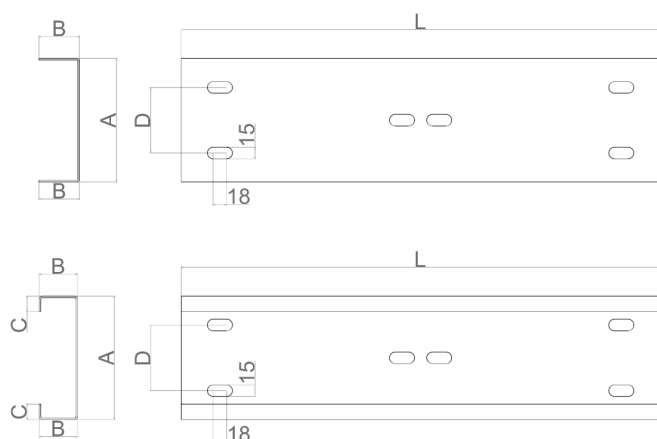
C and U profiles	49	Structural profiles	50
Profiled sheets 18/76 and 27/200	51	Profiled sheet 38/151	52

— 06 / PROFILES AND SHEETS

C and U profiles

Elements for roof and facade structures.

C and U profiles are used in steel frames and precast reinforced-concrete buildings. Their strength, low weight and easy installation allow load-bearing structures, large spans and varied geometries.



PARAMETER	DIMENSION
A	100-380 mm
B	40-80 mm
C	0-40 mm
D	Minimum 50 mm; maximum A
L	1,500-13,500 mm
T	0.8-3.2 mm

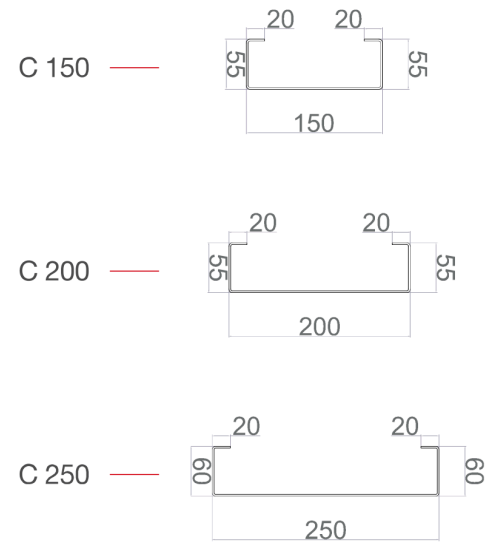


— 06 / PROFILES AND SHEETS

Structural profiles

Common geometries and characteristics.

- 01 Low weight and easy transport.
- 02 Mechanical strength and stiffness for long service life.
- 03 Fast modular assembly; slotted holes can be made where required.
- 04 Elastic behaviour under wind actions and structural movement.
- 05 Recyclable steel, low maintenance and resistance to rot or biological attack.
- 06 Behaviour at high temperatures and fire protection are checked for the designed structure.



SHEET GRADE	REFERENCED STANDARDS
DX51	EN 10347 and EN 10346
S220	EN 10326 and EN 10346
S320	EN 10326 and EN 10346
S350	EN 10326 and EN 10346

Illustrated sizes: C 150 (flanges 55 mm, lips 20 mm), C 200 (flanges 55 mm, lips 20 mm), C 250 (flanges 60 mm, lips 20 mm).

06 / PROFILES AND SHEETS

Profiled sheets 18/76 and 27/200

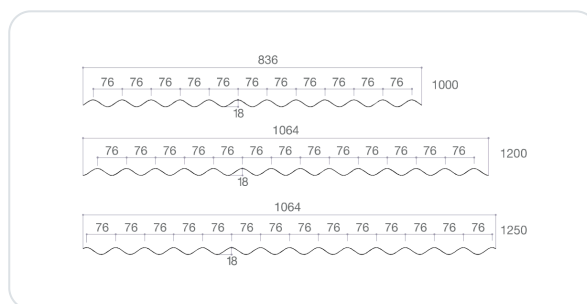
Profiles for roofs, facades, halls, warehouses and canopies.

Galvanised steel or aluminium sheets, available in various thicknesses and RAL finishes by Coil Coating. Values below are uniformly distributed loads, in kg/m².

MODULIX 18/76



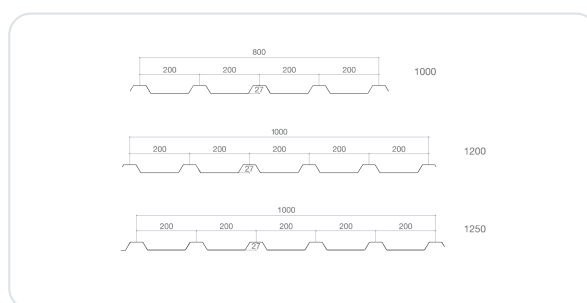
SHEET MM	1,500 MM	2,000 MM	2,500 MM
0.40	115	48	25
0.50	145	60	30
0.60	175	73	37
0.70	350	85	44



MODULIX 27/200



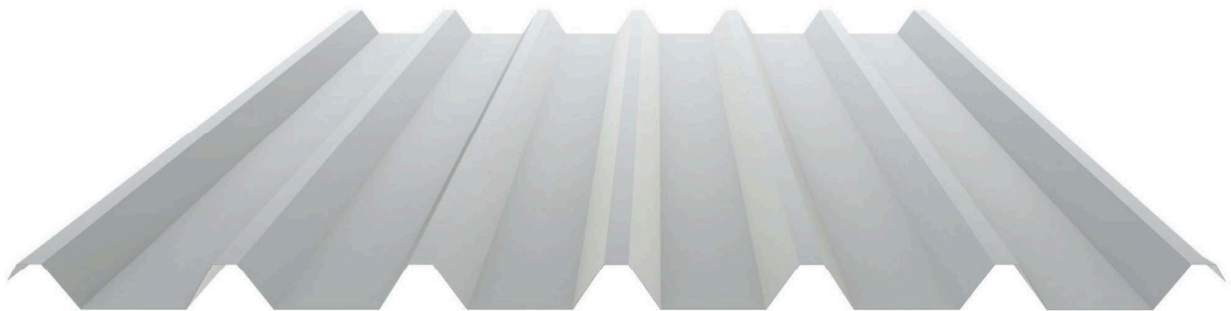
SHEET MM	1,500 MM	2,000 MM	2,500 MM
0.40	350	150	75
0.50	439	186	95
0.60	529	221	113
0.70	615	260	131



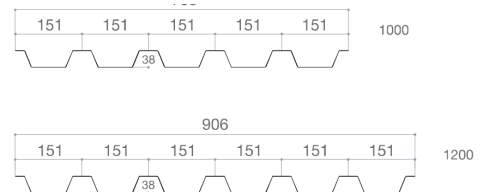
— 06 / PROFILES AND SHEETS

Profiled sheet 38/151

Geometry and indicative allowable loads.

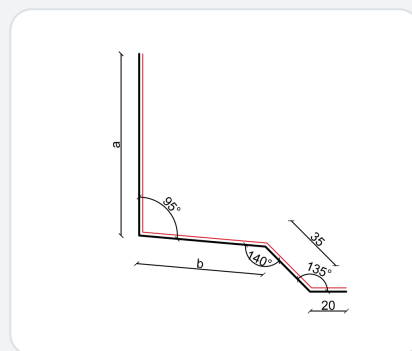
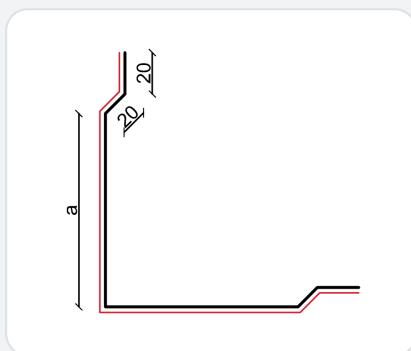
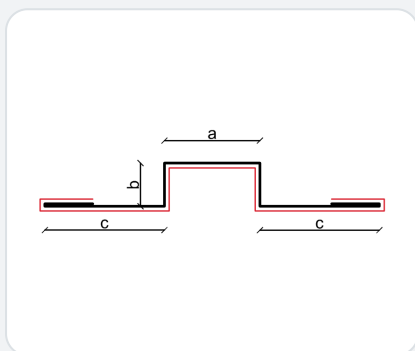
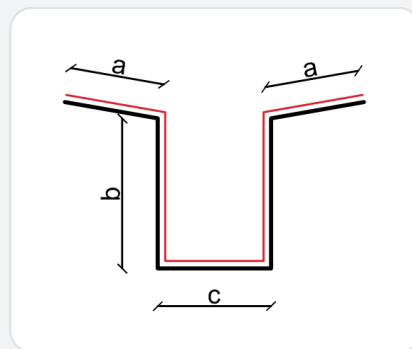
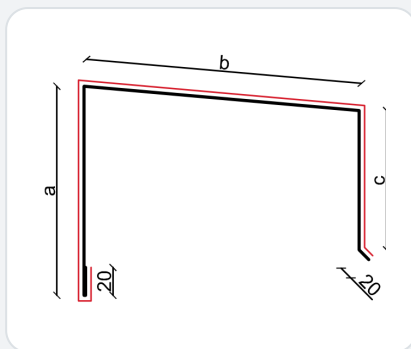
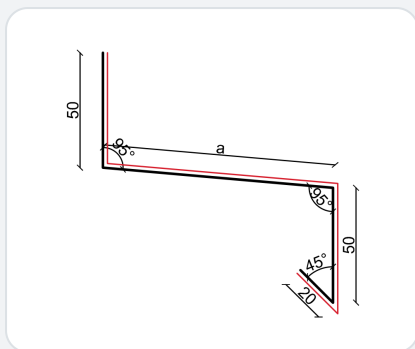


SHEET MM	1,500 MM	2,000 MM	2,500 MM
0.40	665	281	144
0.50	834	350	180
0.60	997	422	216
0.70	1,163	489	250



Calculation conditions for profiled sheets

- 01 Material assumed: DX-51 steel. Deflection limit: $L/200$.
- 02 Calculation by the allowable stress method. Uniformly distributed loads, in kg/m^2 .
- 03 Values do not include point or line loads. Site-specific conditions must be assessed separately.
- 04 The tables are indicative and must be checked for the specific project.



07

Accessories and fixings

Flashings, corners, ridges, gutters and screws

Original geometries for flashings, corners, ridges, base details, gutters and fixing elements.

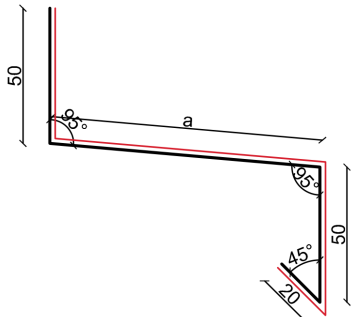
Flashings and corners	54	Corners and joints	55
Joints and ridges	56	Base details and closures	57
Gutters and flashings	58	Fixing elements	59

— 07 / ACCESSORIES

Flashings and corners

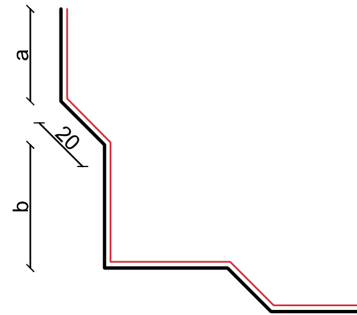
Original geometries. Dimensions in drawings are in mm.

Drip profile



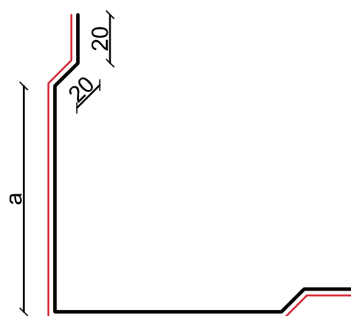
Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

Internal corner / type A



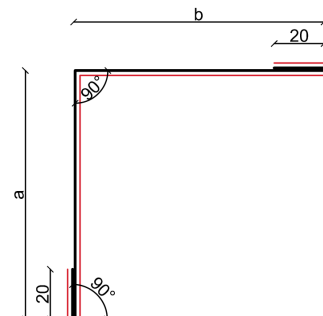
Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

External corner / type A



Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

Internal corner / type B



Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

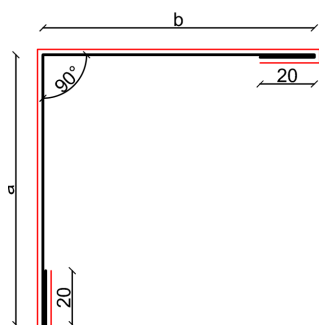
Dimensions a, b, c and d are set according to the project detail.

07 / ACCESSORIES

Corners and joints

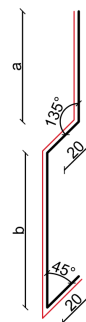
Original geometries. Dimensions in drawings are in mm.

External corner / type B



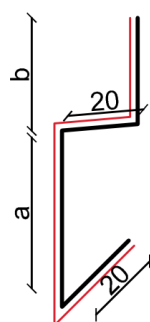
Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

Facade joint profile



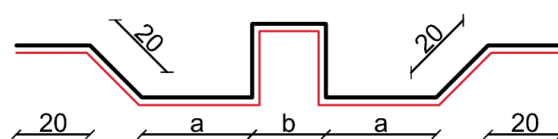
Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

Screw cover profile



Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

Joint cover profile



Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

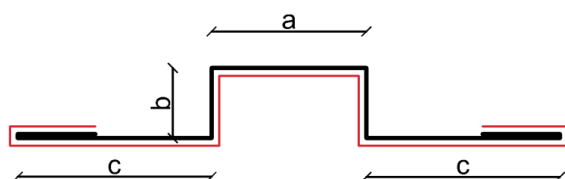
Dimensions a, b, c and d are set according to the project detail.

— 07 / ACCESSORIES

Joints and ridges

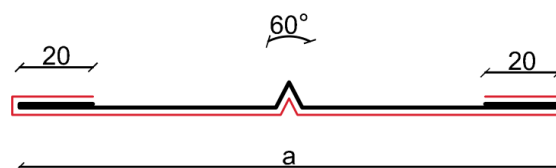
Original geometries. Dimensions in drawings are in mm.

Omega profile



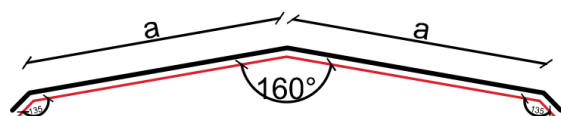
Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

Expansion joint profile



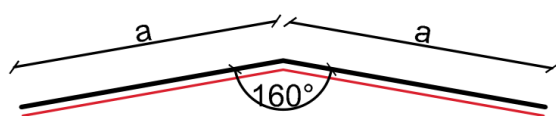
Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

Plain upper ridge



Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

Lower ridge



Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

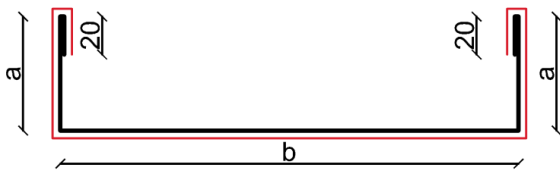
Dimensions a, b, c and d are set according to the project detail.

— 07 / ACCESSORIES

Base details and closures

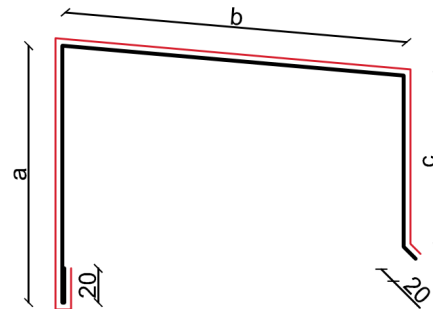
Original geometries. Dimensions in drawings are in mm.

Cold-room floor profile



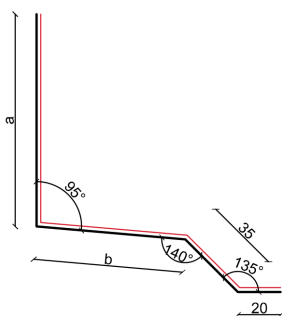
Material	galvanised steel / aluminium
Thickness	1.50-2.00 mm
Length	3,000 mm
Developed width	variable

Parapet coping



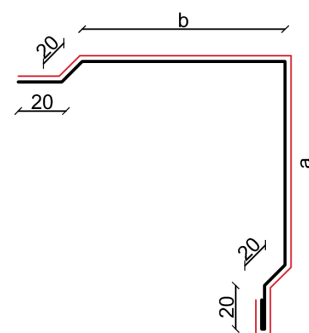
Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

Base profile / render junction



Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

Roof verge flashing



Material	galvanised steel / aluminium
Thickness	0.50-1.50 mm
Length	3,000 mm
Developed width	variable

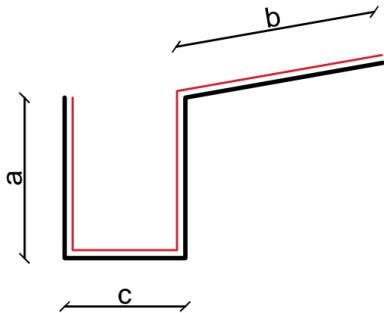
Dimensions a, b, c and d are set according to the project detail.

07 / ACCESSORIES

Gutters and flashings

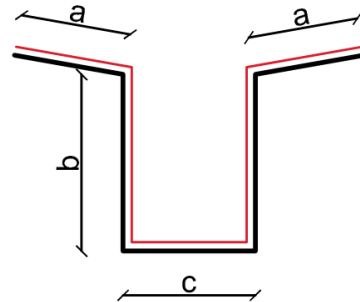
Original geometries. Dimensions in drawings are in mm.

Side gutter



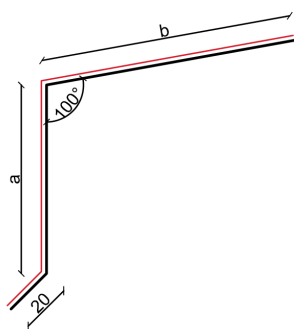
Material	galvanised steel / aluminium
Thickness	1.50-2.00 mm
Length	3,000 mm
Developed width	variable

Central gutter



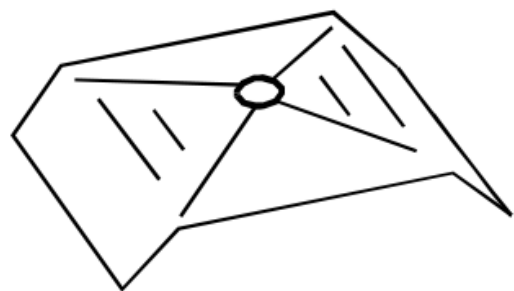
Material	galvanised steel / aluminium
Thickness	1.50-2.00 mm
Length	3,000 mm
Developed width	variable

Gutter apron flashing



Material	galvanised steel / aluminium
Thickness	1.50-2.00 mm
Length	3,000 mm
Developed width	variable

Saddle washer



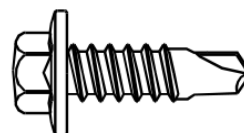
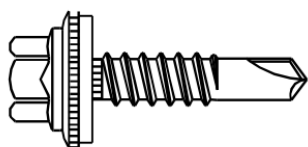
Materials	pre-painted galvanised steel, pre-painted aluminium or aluminium
-----------	--

Dimensions a, b, c and d are set according to the project detail.

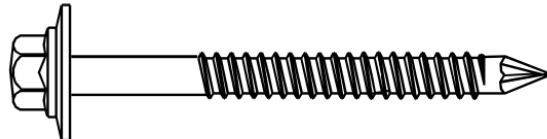
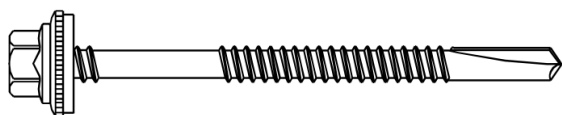
— 07 / ACCESSORIES

Fixing elements

Screws for profiled sheets, panels and accessories.



TYPE	DRILLING	LENGTHS	DIAMETER
Profiled sheet	5 mm	25 / 32 / 38 / 50 / 60 mm	5.5 mm
Profiled sheet	12 mm	32 / 50 / 60 mm	5.5 mm
Accessories	2 mm	20 mm	4.8 mm



TYPE	DRILLING	LENGTHS	DIAMETER
Sandwich panels	5 / 12 mm	66 / 75 / 90 / 105 / 120 / 135 / 140 / 145 / 155 / 165 / 175 / 180 / 190 / 200 mm	5.5 mm
Fibre cement / Betofast	-	35 / 45 / 60 / 75 / 95 / 105 / 115 / 125 / 135 / 145 / 175 / 200 mm	6.3 mm

Screw selection depends on panel thickness, substructure, loads and drilling capacity. Tighten to the correct torque without deforming the metal facing.

08

Load tables

Roof, facade, membrane and GRP

Uniformly distributed loads in kg/m² for multiple spans, with U and R values.

Loads: PUR / PIR roof	61	Loads: stone wool and membranes	62
GRP loads and calculation conditions	63	Loads: facades GV, DV, GVT	64
Loads: facades 7F, 8S, DVT	65		

08 / LOAD-BEARING CAPACITY

Loads: PUR / PIR roof

Uniformly distributed loads [kg/m²], multiple spans.

PUR / PIR MODULIX 5S GV

CORE MM	EXT. MM	INT. MM	SPAN [MM]				U	R
			1,000	1,500	2,000	2,500		
40	0.50	0.40	435	246	173	133	0.55	1.82
50	0.50	0.40	526	307	218	168	0.44	2.27
60	0.50	0.40	552	357	256	188	0.37	2.73

PUR / PIR MODULIX 5H DV

CORE MM	EXT. MM	INT. MM	SPAN [MM]				U	R
			1,000	1,500	2,000	2,500		
40	0.50	0.40	521	289	200	153	0.55	1.82
50	0.50	0.40	628	360	253	193	0.44	2.27
60	0.50	0.40	720	418	297	207	0.37	2.73

PUR / PIR MODULIX 3H DV

CORE MM	EXT. MM	INT. MM	SPAN [MM]				U	R
			1,000	1,500	2,000	2,500		
40	0.50	0.40	348	202	145	112	0.55	1.82
50	0.50	0.40	423	253	182	142	0.44	2.27
60	0.50	0.40	383	295	214	169	0.37	2.73

U: W/(m²K) | R: m²K/W | Ext./Int.: sheet thicknesses. Spans in mm. Calculation conditions in this section.

08 / LOAD-BEARING CAPACITY

Loads: stone wool and membranes

Uniformly distributed loads [kg/m²], multiple spans.

STONE WOOL

MODULIX 5H DVT

SPAN [MM]

CORE MM	EXT. MM	INT. MM	1,000	1,500	2,000	2,500	U	R
50	0.50	0.40	548	317	226	170	0.70	1.43
60	0.50	0.40	623	370	267	192	0.58	1.71
80	0.50	0.40	743	457	333	239	0.44	2.29

MODULIX 5H DV PVC/TPO

CORE	MEMBRANE MM	INNER SHEET MM	1,000	1,500	2,000
PUR / PIR	1.20	0.50	221	145	111
PUR / PIR	1.20	0.60	266	174	141
PUR / PIR	1.20	0.70	308	204	155

MODULIX 5H DVT PVC/TPO

CORE	MEMBRANE MM	INNER SHEET MM	1,000	1,500	2,000
Stone wool	1.20	0.50	221	145	111
Stone wool	1.20	0.60	266	174	141
Stone wool	1.20	0.70	308	204	155

For membrane variants, the core thickness is not specified in the supplied load table.

08 / LOAD-BEARING CAPACITY

GRP loads and calculation conditions

Values are taken from the supplied technical documentation.

MODULIX 5H DV CTP

CORE	OUTER SHEET MM	GRP INT. MM	1,000	1,500	2,000
PUR / PIR	0.50	0.70	221	145	111
PUR / PIR	0.50	0.70	266	174	141
PUR / PIR	0.50	0.70	308	204	155

Uniformly distributed loads, in kg/m².

General conditions for using the tables

- 01 Material assumed: DX-51 steel. Deflection limit: L/200.
- 02 Calculation by the allowable stress method. Values are uniformly distributed loads, in kg/m².
- 03 Point and line loads are not included. Site-specific conditions and actions must be taken into account.
- 04 Values are indicative and do not replace the structural verification of the project.

08 / LOAD-BEARING CAPACITY

Loads: facades GV, DV, GVT

Uniformly distributed loads [kg/m²], multiple spans.

PUR / PIR

MODULIX GV

SPAN [MM]

CORE MM	EXT. MM	INT. MM	1,000	1,500	2,000	2,500	U	R
40	0.50	0.40	353	232	169	143	0.55	1.82
50	0.50	0.40	452	291	214	169	0.44	2.27
60	0.50	0.40	575	354	266	210	0.37	2.73

PUR / PIR

MODULIX DV

SPAN [MM]

CORE MM	EXT. MM	INT. MM	1,000	1,500	2,000	2,500	U	R
40	0.50	0.40	348	224	167	136	0.55	1.82
50	0.50	0.40	440	274	208	163	0.44	2.27
60	0.50	0.40	542	353	255	199	0.37	2.73

STONE WOOL

MODULIX GVT

SPAN [MM]

CORE MM	EXT. MM	INT. MM	1,000	1,500	2,000	2,500	U	R
50	0.50	0.40	280	180	135	108	0.70	1.43
60	0.50	0.40	341	219	164	127	0.58	1.71
80	0.50	0.40	476	303	217	177	0.44	2.29

U: W/(m²K) | R: m²K/W | Ext./Int.: sheet thicknesses. Spans in mm. Calculation conditions in this section.

08 / LOAD-BEARING CAPACITY

Loads: facades 7F, 8S, DVT

Uniformly distributed loads [kg/m²], multiple spans.

PUR / PIR

MODULIX 7F

SPAN [MM]

CORE MM	EXT. MM	INT. MM	1,000	1,500	2,000	2,500	U	R
40	0.50	0.40	363	242	179	153	0.55	1.82
50	0.50	0.40	464	300	315	179	0.44	2.27
60	0.50	0.40	585	365	276	220	0.37	2.73

PUR / PIR

MODULIX 8S

SPAN [MM]

CORE MM	EXT. MM	INT. MM	1,000	1,500	2,000	2,500	U	R
40	0.50	0.40	350	235	179	156	0.55	1.82
50	0.50	0.40	459	298	223	172	0.44	2.27
60	0.50	0.40	554	342	266	189	0.37	2.73

STONE WOOL

MODULIX DVT

SPAN [MM]

CORE MM	EXT. MM	INT. MM	1,000	1,500	2,000	2,500	U	R
50	0.50	0.40	280	180	135	108	0.70	1.43
60	0.50	0.40	341	219	164	127	0.58	1.71
80	0.50	0.40	476	303	217	177	0.44	2.29

U: W/(m²K) | R: m²K/W | Ext./Int.: sheet thicknesses. Spans in mm.

09

Transport, installation and storage

Loading, handling, fixing, sealing and protection

Rules for loading, unloading, handling, roof and facade installation and storage.

Loading and transport	67	Unloading and moving	68
Handling the panels	69	Roof installation	70
Fixings, ridges and sealing	71	Facade installation	72
Cold rooms	73	Storage and film	74

09 / TRANSPORT AND INSTALLATION

Loading and transport

Protecting the packs starts with choosing and preparing the vehicle.

- 01 Choose the vehicle according to the length, number and weight of the panels. Loading can be done by crane or forklift. For side access, the side stakes must be removable.
- 02 Separate packs with EPS spacers to allow forks or slings and avoid hard contact between panels. Also use spacers between packs and the vehicle side boards.
- 03 Use at least 10 lashing straps. Protect edges and joints with plastic or wooden corner guards 15-20 cm wide.
- 04 Check and re-tension the straps every 100 km. Check that packs and spacers have not shifted.
- 05 After loading, close the side and rear boards. On request, wooden pallets under the pack can give extra protection during handling.
- 06 Do not exceed the vehicle capacity and avoid loading other goods on or next to the packs once secured.

Vehicle dimensions from the documentation

VEHICLE	LENGTH	WIDTH	HEIGHT
Truck	7.2 m	2.45 m	2.7 m
4-axle truck	8.2 m	2.45 m	2.7 m
Closed semi-trailer	13.6 m	2.45 m	2.7 m
Open semi-trailer	13.6 m	2.45 m	2.7 m

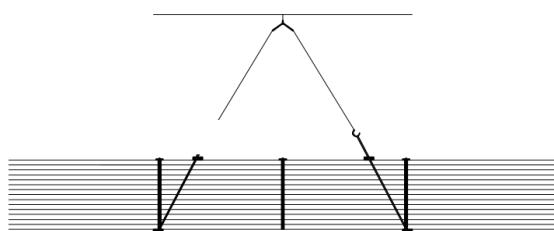
Dimensions are those given in the documentation; actual compatibility is checked for the chosen vehicle.

— 09 / TRANSPORT AND INSTALLATION

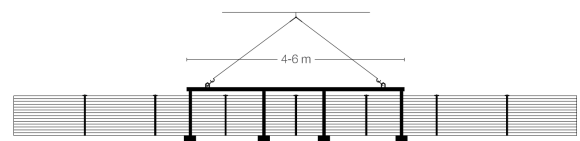
Unloading and moving

Controlled lifting, protecting edges and joints.

- 01** Select the crane according to working radius, pack weight and dimensions. Packs over 7 m require a 4-fork forklift attachment.
- 02** Do not use steel cables or chains in direct contact with the panels. Use flat slings at least 20 cm wide, rated for the load.
- 03** Where the slings touch, insert wooden or other suitable protectors both below and above the pack. Protectors must exceed the pack width by 3.5 cm on each side.
- 04** Packs longer than 6 m are lifted with special devices. The device must be at least half the length of the shortest panel.
- 05** Lift one pack at a time, vertically. Do not drag packs on the ground. On site, move them over level routes, with as few moves as possible and without shocks.
- 06** Distribute packs on the roof at suitable spacing; do not concentrate them in a single span or stack them. Facade panels are unloaded close to the installation area.



✗ WITHOUT CORRECT LOAD DISTRIBUTION



✓ LIFTING WITH A SPREADER DEVICE

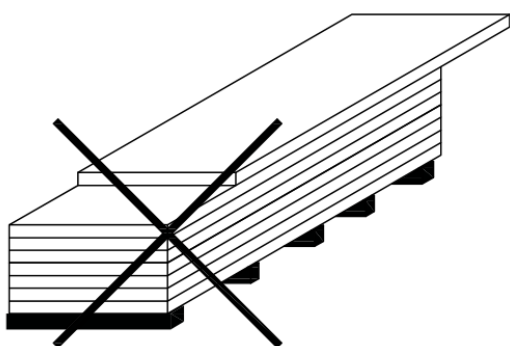
— 09 / TRANSPORT AND INSTALLATION

Handling the panels

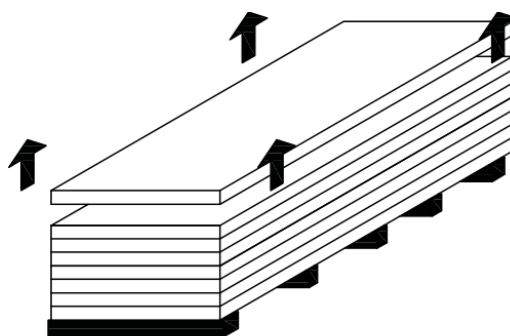
Each panel is lifted separately, without rubbing the facing below.

After opening the pack, lift the panel without dragging it over the one below. Use vertical lifting devices, suction cups, suitable clamps or enough people for controlled handling.

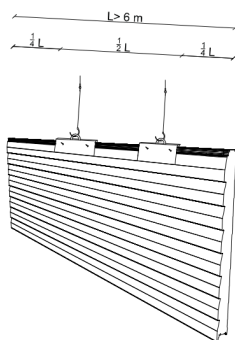
Do not grip or carry the panel by the sheet edge or the overlap. The metal facing may detach from the core.



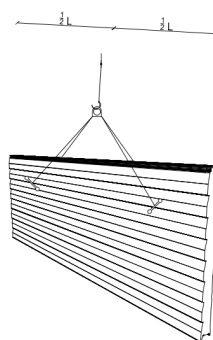
✗ DO NOT SLIDE THE PANEL



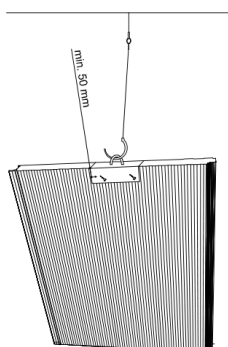
✓ LIFT SEPARATELY



LIFTING WITH A DEVICE



VERTICAL LIFTING



PROPER GRIP



HANDLING WITH ENOUGH PEOPLE

— 09 / TRANSPORT AND INSTALLATION

Roof installation

Installation order, overlaps and sealing.

- 01** Check the supporting structure and determine the prevailing wind direction. Start laying the panels against the wind, according to the joint detail.
- 02** At end laps, fit and fix a suitable bearing plate on the two adjacent purlins.
- 03** Apply silicone tape or double-sided adhesive tape on the lower panel, in front of the screw and preferably also behind it, depending on the slope. Minimum overlap is 20 cm. Screws are placed on the ribs.
- 04** Between panel and structure, and between panel and accessories, 2-10 mm adhesive foam tape is recommended to limit metal-to-metal contact.
- 05** Apply mastic 2 cm inside the edges of the accessories, transversally and longitudinally, for sealing.
- 06** Close installed areas with the relevant flashings as soon as possible; until then, protect openings from water. The stone wool core must be kept dry during installation.

20 cm

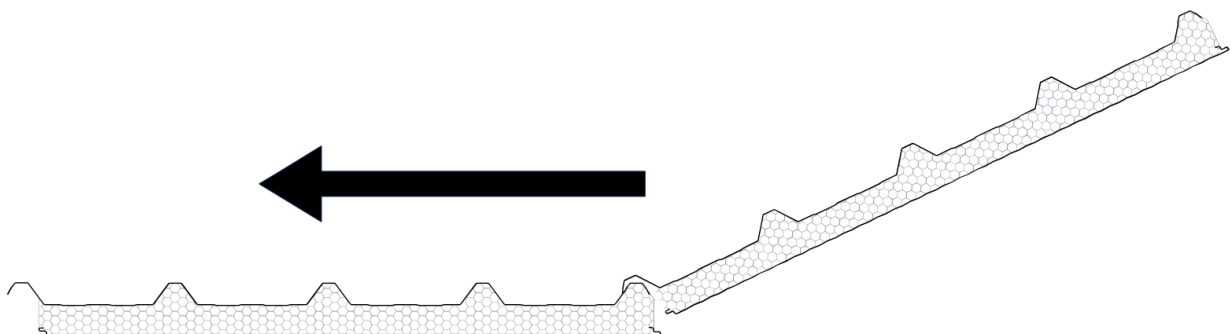
MINIMUM OVERLAP

2-10 mm

ADHESIVE FOAM TAPE

2 cm

MASTIC SET BACK

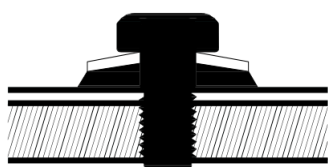


THE PREVAILING WIND DIRECTION IS DETERMINED BEFORE INSTALLATION STARTS.

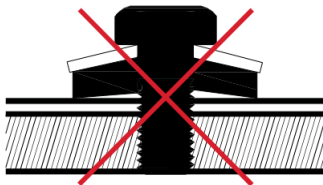
— 09 / TRANSPORT AND INSTALLATION

Fixings, ridges and sealing

Roof installation / continued.



✓ CORRECT



✗ UNDER-TIGHTENED



✗ OVER-TIGHTENED

- 01 Choose corrosion-resistant screws suited to the panel, the loads and the substructure. Check the drilling capacity. Screws are tightened to the correct torque, never hammered. The inner facing must bear on the support without deforming the outer facing.
- 02 Use panels from the same batch on the same surface to limit shade differences. Follow the batch labels and indicated orientation. Avoid swarf, welding spatter and other particles that could damage the finish.
- 03 Fix the lower ridge to the purlins. Install the panels correctly aligned and fill the ridge gap with insulation. Apply mastic or double-sided tape 2 cm from the edges of the upper ridge, then screw it in place.
- 04 Waterproof the gutters. Thermal insulation is provided under concealed and central gutters.
- 05 In capped systems, the cover profile hides the screws on the rib. With concealed fixing, the free rib of the next panel overlaps and locks the fixed area.
- 06 To limit thermal stresses, the recommended installation temperature is at least +10 °C. Avoid installing in strong wind or rain. Protect stone wool panel ends with insulation, flashings or folded sheet.

— 09 / TRANSPORT AND INSTALLATION

Facade installation

Vertical or horizontal installation, depending on the project.

+10 °C

MINIMUM INSTALLATION
TEMPERATURE

2-10 mm

ADHESIVE FOAM TAPE

1 batch

PER FACADE

- 01** Check the supporting structure and determine the prevailing wind direction. Fit the drip profile horizontally at the base, matched to the panel thickness. Installation starts against the prevailing wind, according to the joint.
- 02** Apply 2-10 mm adhesive foam tape between the structure and the panel and at contact with accessories. Seal accessories with mastic applied 2 cm inside the edges.
- 03** Fit flashings promptly and protect open areas from water; stone wool must be kept dry during the works.
- 04** Select screws according to panel and substructure thickness, loads and drilling capacity. Tighten in a controlled way, without hammering or deforming the sheet. The inner facing must bear on the column or rail.
- 05** Keep the facing orientation and use panels from the same batch on the same facade, following the labels. Avoid swarf, welding spatter and operations that could scratch or damage the surface.
- 06** Install all specified accessories at internal and external corners, doors and windows.
- 07** The recommended installation temperature is at least +10 °C. Avoid rain or strong wind.

The same general conditions as for facade panels apply to partition walls.

09 / TRANSPORT AND INSTALLATION

Cold rooms

Sealing, limiting thermal bridges and commissioning.

2 mm

BUTYL MASTIC JOINT

-5 °C

THRESHOLD FOR THE INNER-FACING THERMAL BREAK

3 stages

WALLS > CEILING > FLOOR

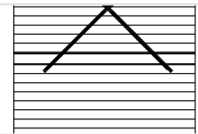
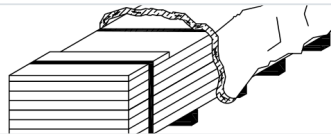
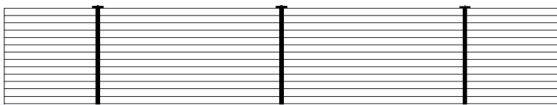
- 01 Panel joints have a 2 mm gap for mastic. Seal the joint channels with butyl mastic.
- 02 Installation order: walls, ceiling, then floor. Remove the protective film after installation. If the floor is insulated, provide the recessed level needed to align with adjacent spaces.
- 03 For rooms below -5 °C, the technical detail requires a thermal break in the inner metal facing as a narrow strip near the floor; execution follows the project.
- 04 For freezer or blast-chill rooms, provide under-floor ventilation or electric heating to prevent ground freezing and structural damage.
- 05 Insulate and seal all refrigeration and electrical penetrations through walls and ceiling. If the cold-room panel is also an external wall of the building, check the application-specific detail.
- 06 Seal joints with silicone suited to the use. For food-storage surfaces use food-contact approved products. Avoid thermal bridges at all junctions.
- 07 At first start-up cool down gradually. In freezer rooms fit enough pressure-relief valves to prevent facings from deforming due to sudden pressure differences.

— 09 / TRANSPORT AND INSTALLATION

Storage and protective film

Preserving finishes and protecting the core before installation.

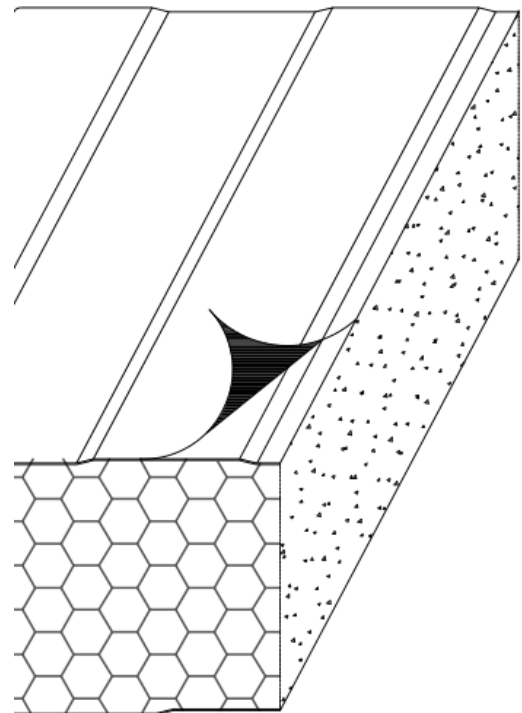
- 01** Keep packs unopened in a covered space, away from water. Support them at a slight slope of 2-3% to drain water and limit condensation.
- 02** Avoid contact with soil, lime, mortar, fertilisers, acids, salts or alkaline substances. Prevent scratching of surfaces.
- 03** Outdoors, use a UV-resistant tarpaulin arranged to allow ventilation and not retain water or condensation. Packs must be raised at least 20 cm above the ground.
- 04** Outdoor storage must not exceed one week. Check humidity daily. Do not stack packs or place weights on them.



Removing the film

Remove the film immediately after installing each panel and within 15 days of the production date. Heat and sunlight can bond the film to the paint, making removal difficult and damaging the finish.

At the end of the working day, rewrap opened packs and protect them from the weather.





Solutions for your project.

SANDWICH PANELS AND ACCESSORIES

CONTACT

CRISTIAN FILIP PITAN

Procurement

+40 755 823 225

modulixindustrialsolutions@gmail.com

BUILT STRONG. BUILT SMART. BUILT TO LAST.