

CATALOGUE
COLDSTORE

GORLICKA CH 1000



GÓR-STAL
GORLICE

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INTRODUCTION

This publication introduces the company and its products manufactured for entities involved in the erection of buildings, including investors, designers and developers. It also provides detailed technical information and typical mounting solutions for systems of light lining with GORLICKA sandwich panels.

ABOUT THE COMPANY

GÓR-STAL Sp. z o.o. is a new manufacturer of sandwich panels in Poland. It has been established to meet the rising demand for light housing materials in the country and abroad. The company was established in 2003 by Polish shareholders with own equity. The complete technological line for the production of sandwich panel with polyurethane foam, mineral wool and expanded polystyrene cores has been supplied by the renowned German company Hennecke GmbH together with W+K Industrie Technik GmbH. It is the most advanced technological line for the production of sandwich panels.

The company's plant is located in Gorlice in Małopolskie region on the affiliate premises of the Euro-Park Mielec Special Economic Zone.

In 2006 the company launched the production of sandwich panels with the trade name GORLICKA.

ABOUT THE PRODUCT

GORLICKA sandwich panels are the new generation of construction materials. They are made up of two profiled steel linings joined together in the production process with a thermal insulation layer of rigid polyurethane foam. GORLICKA sandwich panels provide aesthetic shell walls and roofs with very good tightness and thermal insulation and reduced thickness and weight. Quick and easy mounting, the possibility to carry out works in difficult weather conditions, low investment costs, easy maintenance of the walls and the system's modernity and versatility make the GORLICKA sandwich panels the best material for lining multi-purpose structures: industrial and production facilities, warehouses, commercial buildings, offices, service rooms, stores, cold stores and freezers, garages, workshops etc. The wide range of colours and the variety of panel profiles allow carrying out ambitious architectural projects.

STRUCTURE OF PANELS

The linings of GORLICKA sandwich panels is made of hot-dip galvanized steel sheet S280GD+Z275 according to PN-EN 10326:2006 standard with organic polyester lacquer coating 25 microns thick. Due to higher anti-corrosion requirements, the panels may be made of sheets coated with PVDF or plastisol. The linings are secured against mechanical damage during transportation and mounting by means of protecting foil.

The panel core is made of rigid polyurethane foam with density of $40 \pm 3 \text{ kg/m}^3$, resistant to biological corrosion. The heat conductivity calculation value of the foam is $\lambda = 0.023 \text{ W/m}\cdot\text{K}$.

CERTIFICATES AND TECHNICAL APPROVALS

GORLICKA sandwich panels have the following certificates and technical approvals:

According to norm **PN EN 15 509:2010** – GORLICKA sandwich panels with rigid polyurethane foam core in steel sheet lining.

PZH Hygienic Certificate no. HK/B/0250/01/2012 – approving the products for applications in service, commercial, food, cooling, housing and public utility facilities, including health-care facilities.

PRODUCTION PROGRAMME

The production programme for the GORLICKA sandwich panel systems includes the following items:

Wall sandwich panels	GORLICKA S 1000 (standard cam-lock) – 40, 60, 80 and 100 mm GORLICKA U 1000 (hidden cam-lock) – 60, 80 and 100 mm
Roof sandwich panel	GORLICKA D 1000 (roof cam-lock) – 40, 60, 80 and 100 mm
Coldstore panels	GORLICKA CH 1000 (cold storage cam-lock) – 100,120,160 and 200 mm

Flashings: typical and custom-made according to the client's design with maximum length of 6 m. This publication provides detailed characteristics of coldstore panels. Other products are characterised in a separate technical catalogue.

GUIDELINES FOR TRANSPORT

GORLICKA sandwich panels are packed in batches. Loading and unloading of the batches may be done by means of forklift trucks or a lift equipped with an appropriate bar lifting sling, however:

- one forklift can be used to transport batches up to 8 m long. Longer panels shall be unloaded with two forklifts. The space between supports of the transported batch may not exceed 4 m.
- for unloading with a lift equipped with rope slings use spacers preventing the panels from being squeezed.

The transportation of sandwich panels shall be carried out by vehicles adapted for that purpose, while maintaining the following conditions:

- free access on both sides of the trailer along its entire length.
- up to 2 batches of panels in one stake.
- the width of the loading area: minimum 2450 mm (in case of 2 stakes of panel).
- support for the batch provided on the entire length of the load-carrying body.
- panels may not contact one another, the load-carrying body or the transportation belts.
- the vehicle must be equipped with load fixing belts; flexible separators shall be placed under the belts. Tensioned belts must not deform the panels.

Plates indicating the number of panels in a batch are available in the technical specification of specific panels.

GUIDELINES FOR MOUNTING

The manufacturer of GORLICKA sandwich panels recommends using flashings and cam-locks supplied with the panel as part of the GORLICKA panels light housing system.

- When mounting the panels, follow the guidelines provided below:
- cut the plates and flashings with a fine-toothed sawing machine or tinman's shears – do not use cut-off wheels!
- cut the panels and flashings at a properly prepared station in order not to damage the lacquer and tin coatings.
- remove the protection foil after the panels have been installed, but not later than 3 months after purchase.
- after installation thoroughly clean the surface of the panels, particularly off steel filings.

Typical panel mounting solutions are presented farther in this publication.

TECHNICAL SUPPORT

Gór-Stal provides assistance and technical support on each stage of the investment. Our sales representatives and the technical support team provide advice to investors, designers and developers in designing, ordering and mounting of light housing panels.

We also design and verify light housing projects.

Please visit our website at www.gor-stal.pl

APPLICATION

Coldstore panels GORLICKA CH 1000 are designed for constructing walls and roofs in rooms with decreased temperature – cold stores ($t > 0^{\circ}\text{C}$) and freezers ($t < 0^{\circ}\text{C}$), as well as other facilities with controlled temperature and humidity, such as stores and food processing plants.

CH 1000 panels can be used for the construction of independent facilities, as well as cold rooms or freezing rooms inside existing structures. The panels can be mounted both in vertical and horizontal orientations as single- or double-span elements.

PHYSICAL PROPERTIES

Coldstore panels GORLICKA CH 1000 are manufactured with four thickness values of the core: 120, 160 and 200 mm. The panel linings are made of 0.50, 0.55 or 0.6 mm thick, galvanised steel sheet S280GD+Z275 according to PN-EN 10326:2006 with 25 μm thick mineral polyester lacquer coating.

The heat-insulating core of the panel is made of rigid polyurethane foam (PUR) with the density of 40 \pm 3 kg/m³. The modular width of the panel is 1000 mm. Standard panel lengths are from 2.0 m to 12 m. On the client's request we also provide panels shorter than 2 m or longer than 12 m, however the maximum length is 16,5 m.

Thickness [mm]	Weight [kg/m ²]	Modular width [mm]	Length: typical/available [m]	Lining standard RAL colours
100	12,70	1000 1140 - for L and M panel lining	2.0-12.0/16.5	9002 9010 9006
120	13.30			
160	14.90			
200	16.50			

TECHNICAL PARAMETERS

Thermal insulation of the panels is dependent on the thickness of the core and characterised by the heat-transfer coefficient U, provided in the table below.

Acoustic parameters of the panels have been determined according to PN-EN ISO 717-1:1999 standard. Coldstore panels may be used as barriers with acoustic insulation requirements no greater than those provided below.

As for the fire resistance, coldstore sandwich panels GORLICKA CH 1000 have been classified as fire-retardant (**NRO**) according to PN-90/B-02867.

According to PN-EN-13501-1:2004 the panel has been classified as follows: reaction to fire – basic B2, smoke growth – **s2**, occurrence of burning drops and solid waste – **d0**. Resistance to chemical corrosion – sandwich panels GORLICKA may be used in environments of the following atmosphere corrosivity categories: C1, C3, C3 according to PN-EN ISO 12944-2.

Thickness [mm]	Heat-transfer coefficient U [W/m ² K]	Acoustic insulation indicators: R _w , R _{A1} , R _{A2}	Fire classification
100	0,22	R _w = 25 dB R _{A1} = 22 dB R _{A2} = 21 dB	NRO acc. PN-90/B-02867 B-s2,d0 acc. PN-EN 13501-1+A1:2013
120	0,18		
160	0,14		
200	0,11		

PANEL THICKNESS SELECTION

The panel thickness appropriate for a specific facility is selected by the designer, dependent on the difference in temperatures: designed inside the chamber and outside the room.

The following table provides the values of thermal flux for particular panels GORLICKA.

The recommended maximum heat flux density for cold stores is 10 W/m².

Temperature difference Δt [°C]	Panel type and thickness [mm]					
	Wall panel GORLICKA S 1000			Coldstore panel GORLICKA CH 1000		
	60	80	100	120	160	200
	Heat flux density [W/m ²]					
10	3,73	2,78	2,22	1,85	1,38	1,11
15	5,59	4,18	3,33	2,77	2,08	1,66
20	7,46	5,57	4,44	3,70	2,77	2,21
25	9,32	6,96	5,56	4,62	3,46	2,76
30	11,19	8,35	6,67	5,55	4,15	3,32
35	13,05	9,75	7,78	6,47	4,84	3,87
40	14,92	11,14	8,89	7,39	5,53	4,42
45	16,78	12,53	10,00	8,32	6,23	4,97
50	18,64	13,92	11,11	9,24	6,92	5,53
55	20,51	15,32	12,22	10,17	7,61	6,08
60	22,37	16,71	13,33	11,09	8,30	6,63
65	24,24	18,10	14,44	12,02	8,99	7,19
70	26,10	19,49	15,56	12,94	9,69	7,74
75	27,97	20,89	16,67	13,87	10,38	8,29
80	29,83	22,2	17,78	14,79	11,07	8,84
85	31,69	23,67	18,89	15,71	11,76	9,40
90	33,56	25,06	20,00	16,64	12,45	9,95
95	35,42	26,46	21,11	17,56	13,14	10,50

Example of panel thickness selection:

Internal temperature: -15°C
 External temperature: +35°C
 $\Delta t = 50^\circ\text{C}$

The panels suitable for the facility with internal temperature of -15°C is GORLICKA CH 1000 panels, 120 mm thick, for which the heat flux density is 9.24 W/m².

SPAN TABLES

Maximum range table of the coldstore panel GORLICKA CH 1000 with 0.5 mm lining, mounted as a single-span element depending on the wind load zone.

Panel thickness (internal temperature)	Building height	Maximum span [m] for wind load zone:		
		I	II	III
120 (0°)	up to 10 m	5,4	4,7	4,2
	up to 20 m	5,1	4,3	3,9
120 (0°)	up to 10 m	5.4	4.8	4.2
	up to 20 m	5.1	4.3	3.9
160 (-15 °)	up to 10 m	6.0	5.7	5.1
	up to 20 m	6.0	5.3	4.8
200 (-25 °)	up to 10 m	6.0	6.0	5.7
	up to 20 m	6.0	6.0	5.4

Maximum range table of the coldstore panel GORLICKA CH 1000 with 0.5 mm lining, mounted as a multi-span element depending on the wind load zone.

Panel thickness (internal temperature)	Building height	Maximum span [m] for all wind load zones:
100 (0°)	up to 20 m	3,4
120 (0°)	up to 20 m	3.4
160 (-15 °)	up to 20 m	3.2
200 (-25 °)	up to 20 m	3.2

PACKAGING AND SHIPMENT

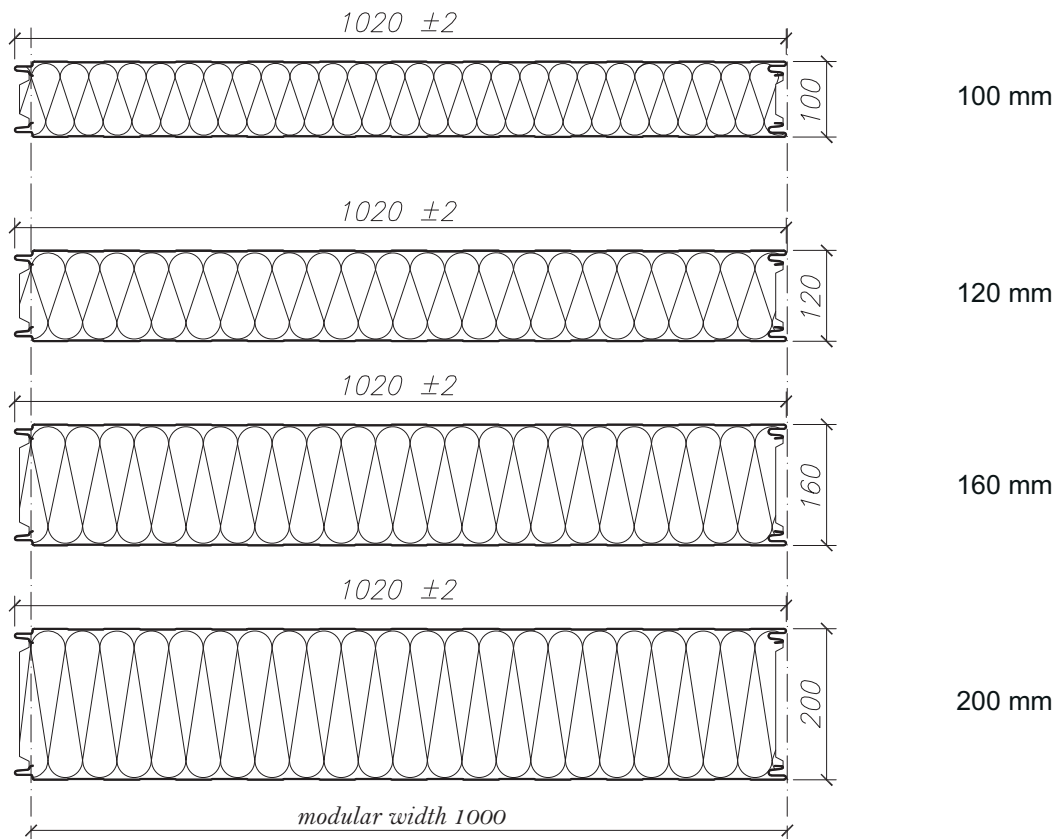
Sandwich panels GORLICKA are packed in batches on wood pallets that allow their movement. The typical height of a batch is 1000 mm. The number of panels in a batch depends on its thickness, as illustrated in the following table.

Panel thickness [mm]	100	120	160	200
Maximum number of panels in one batch	10	9	7	5

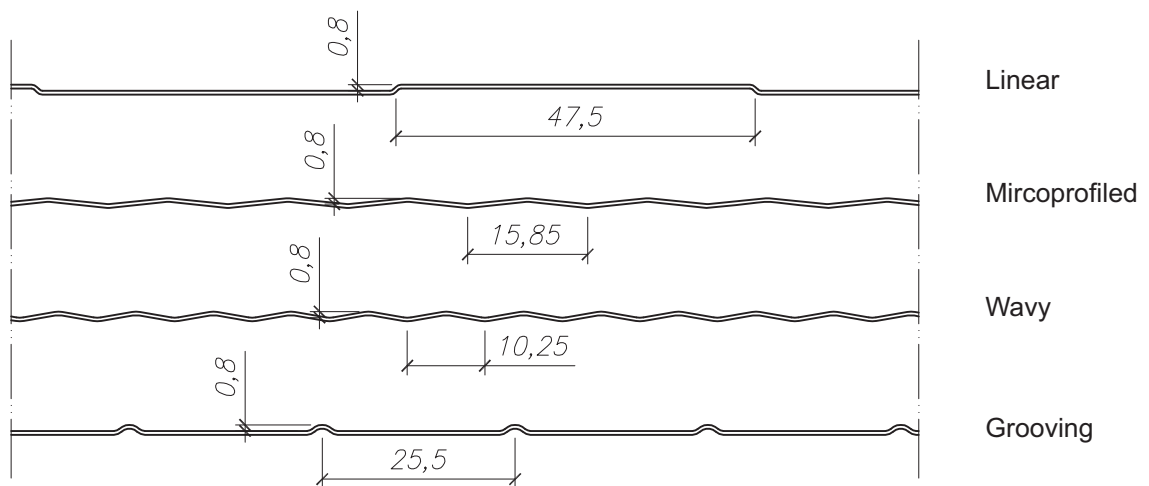
Production programme of panels Gorlicka CH 1000:
 Panel thickness
 External and internal lining profiles

Scale
 1:10
 1:1

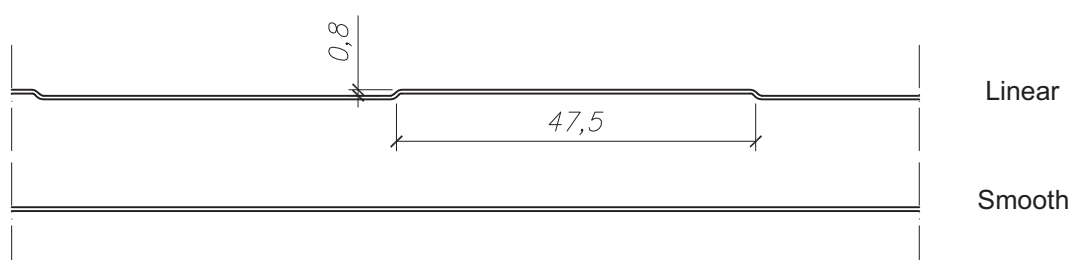
Panel thickness



External lining profiles



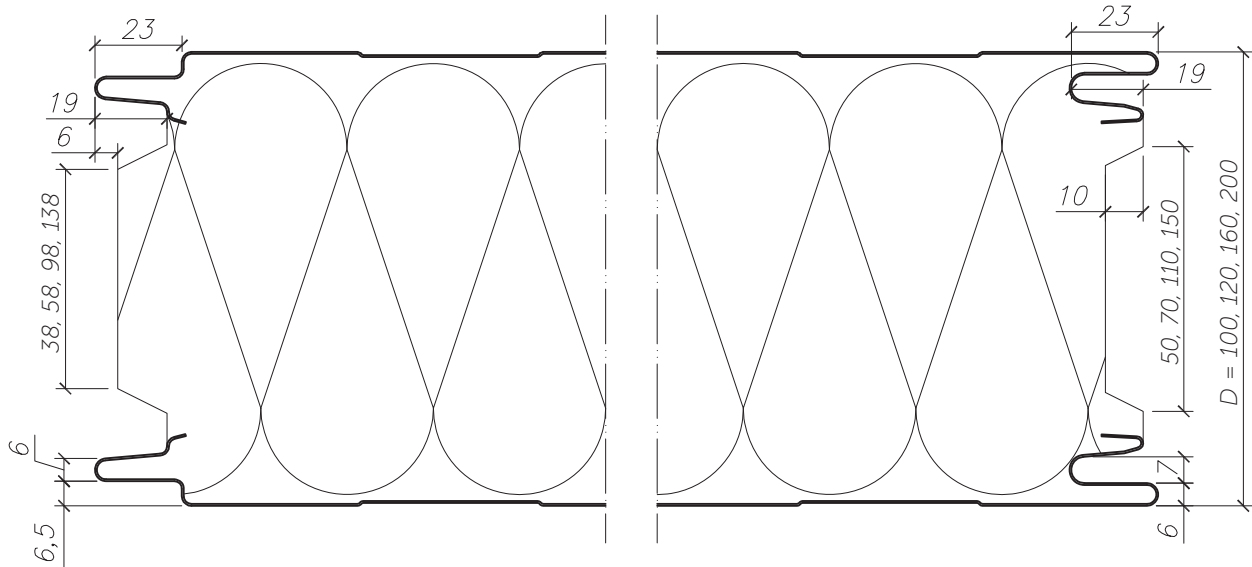
Internal lining profiles



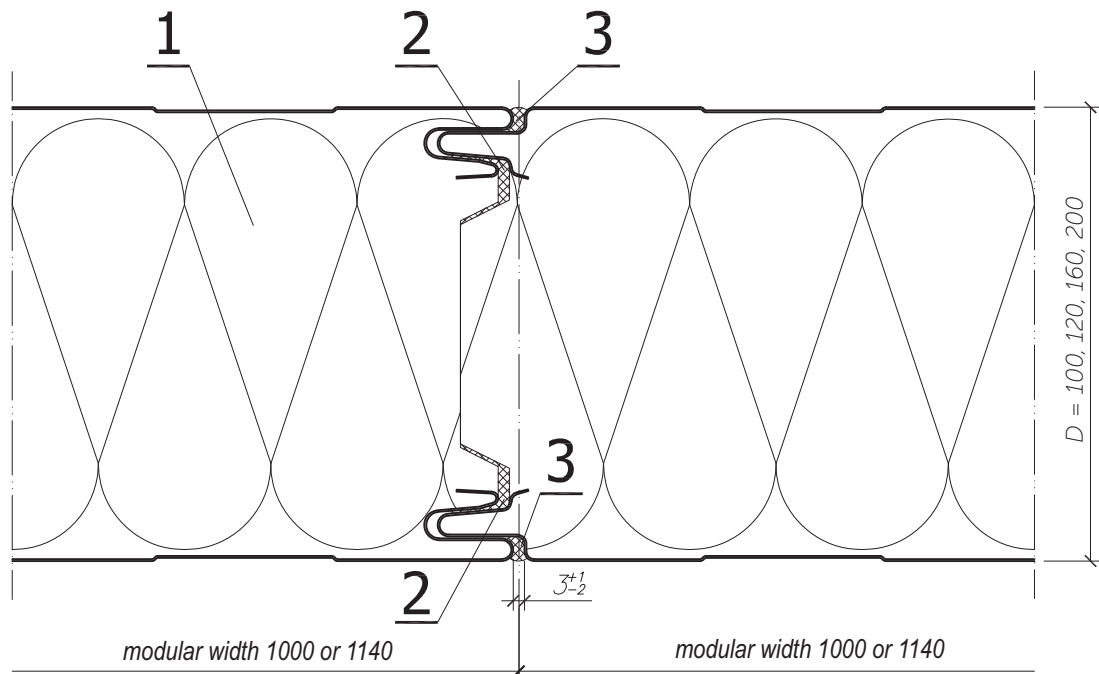
Example details of cooling and production rooms constructed with sandwich panels GORLICKA CH 1000

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Profiles securing the wall panel	20
Mounting the cold store door. Horizontal cross-section	21
Mounting the cold store door. Vertical cross-section	22

Shape of the coldstore panel lock

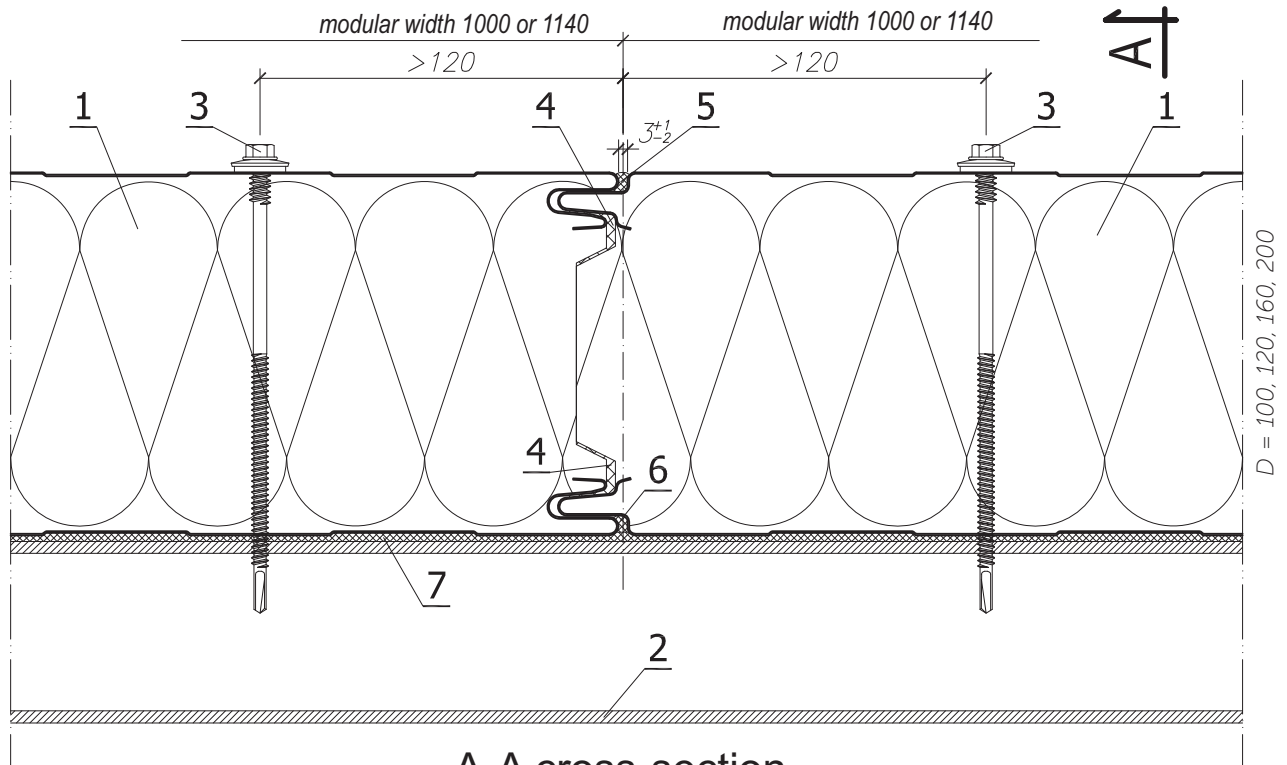


Joining the coldstore panels

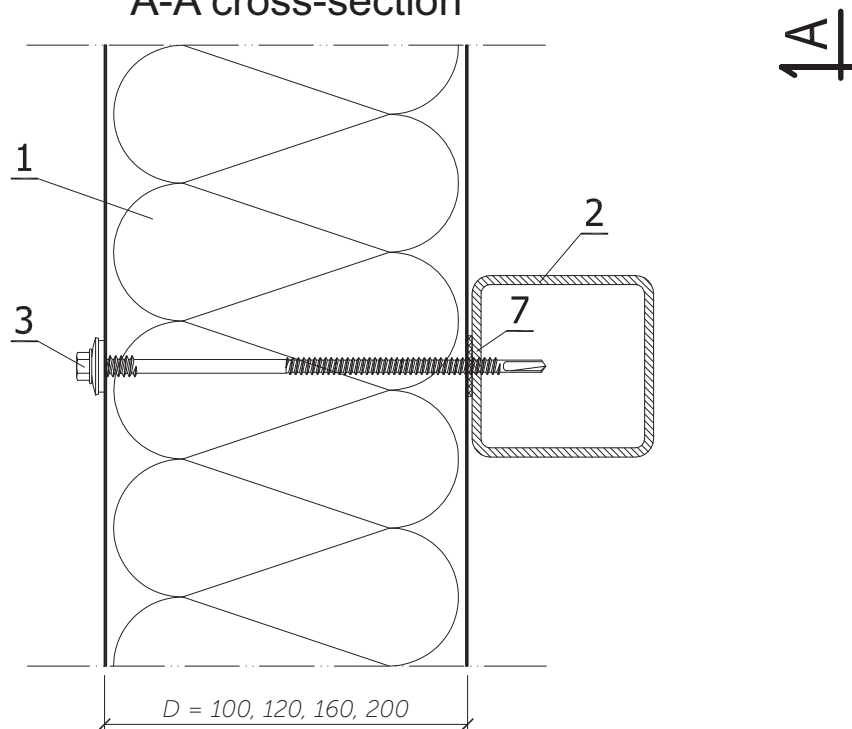


LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Polyurethane mounting foam (applied during installation)
3. Plastic



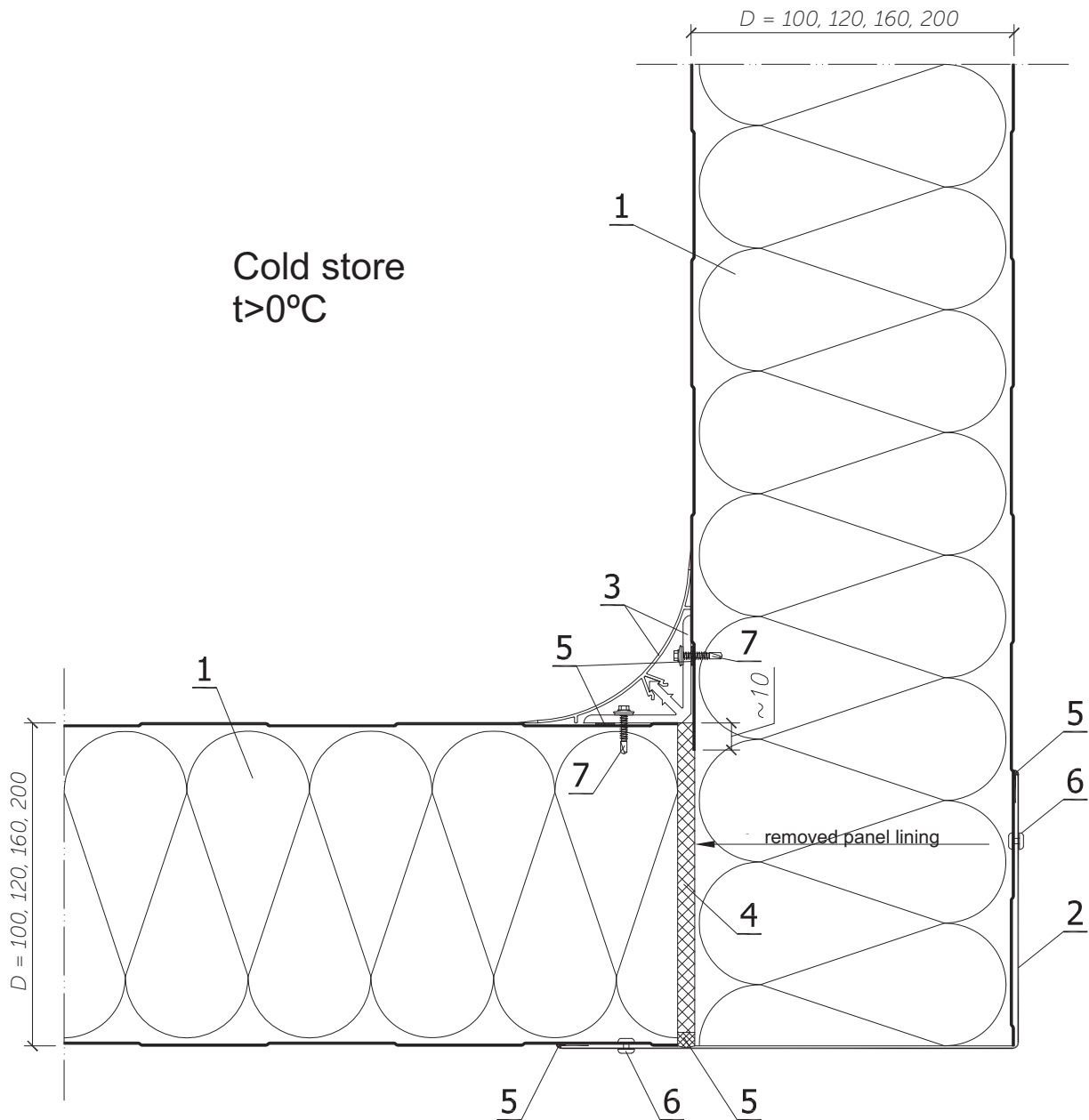
A-A cross-section



LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Support
3. Stainless steel self-drilling fastener for mounting sandwich panels
4. Polyurethane mounting foam
5. Sealing plastic
6. Sealing plastic (with increased tightness requirements)
7. Self-adhesive sealing polyethylene tape (PES)

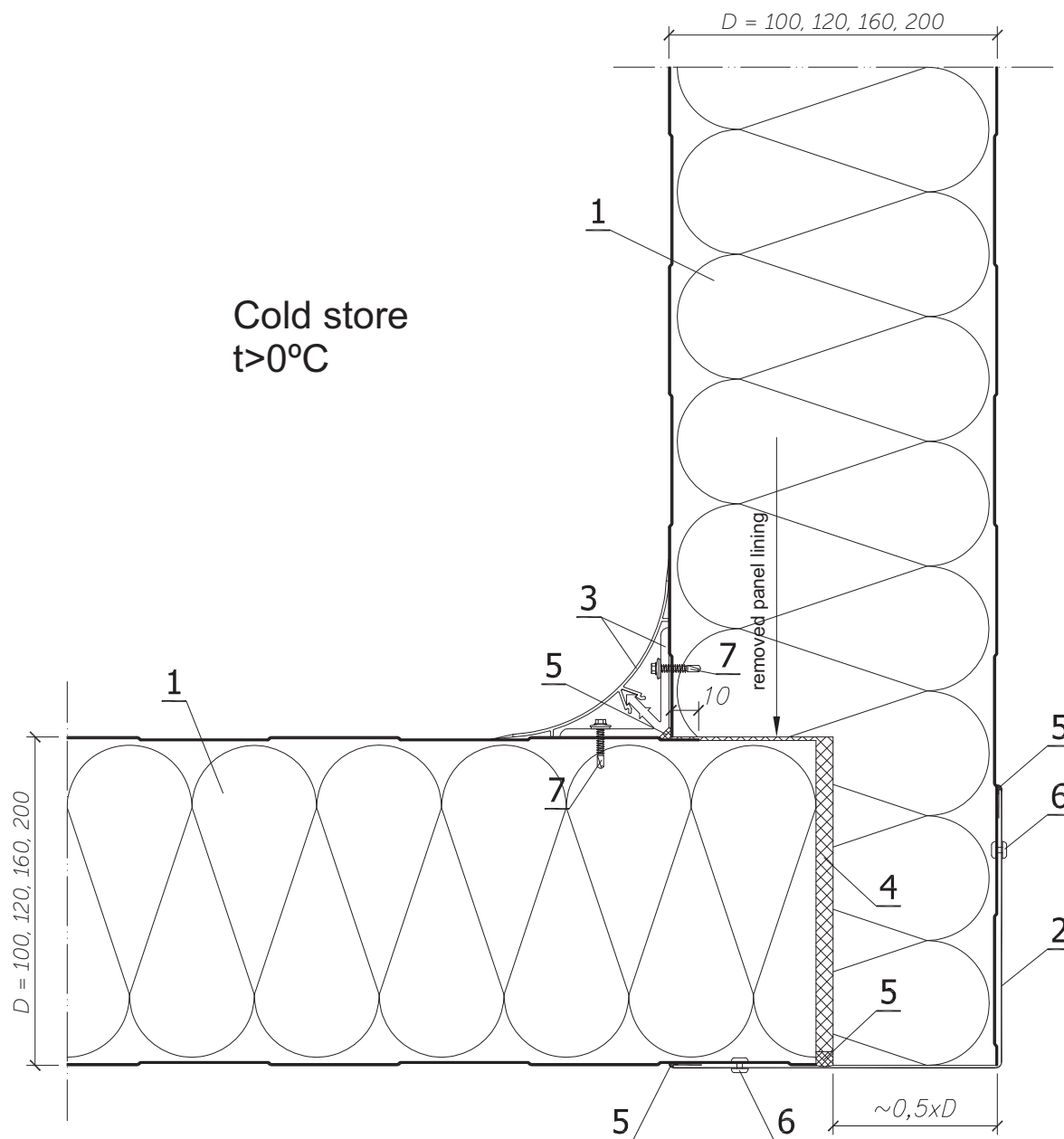
NOTE: Each panel shall be fixed by its width to the construction with at least two joints.



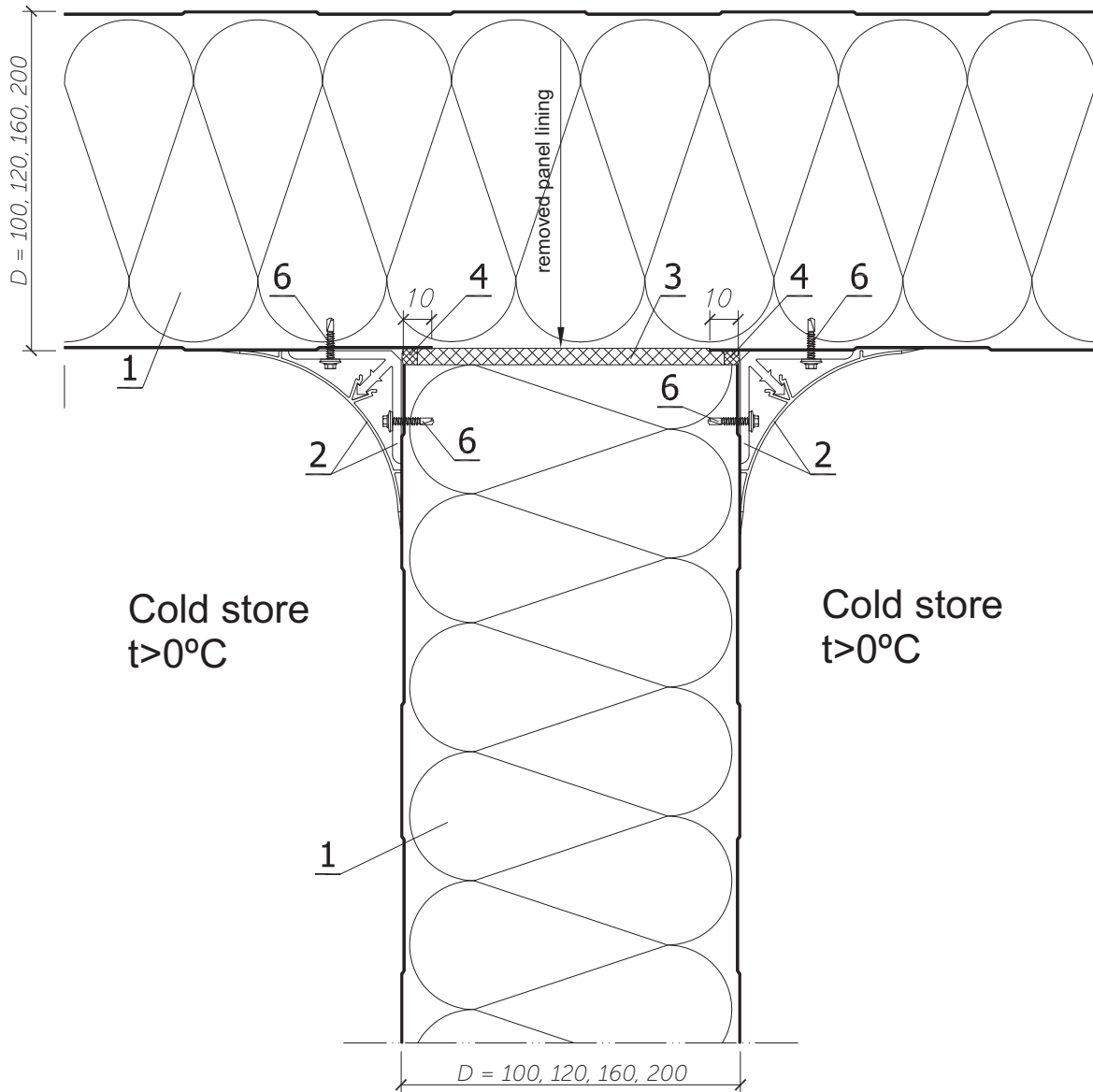
LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Masking flashing
3. PVC corner profile
4. Polyurethane mounting foam
5. Sealing plastic
6. One-side rivet 4.8 x 9.5
7. Self-drilling stainless fastener with seal

Corner of the cold store wall
 Option II

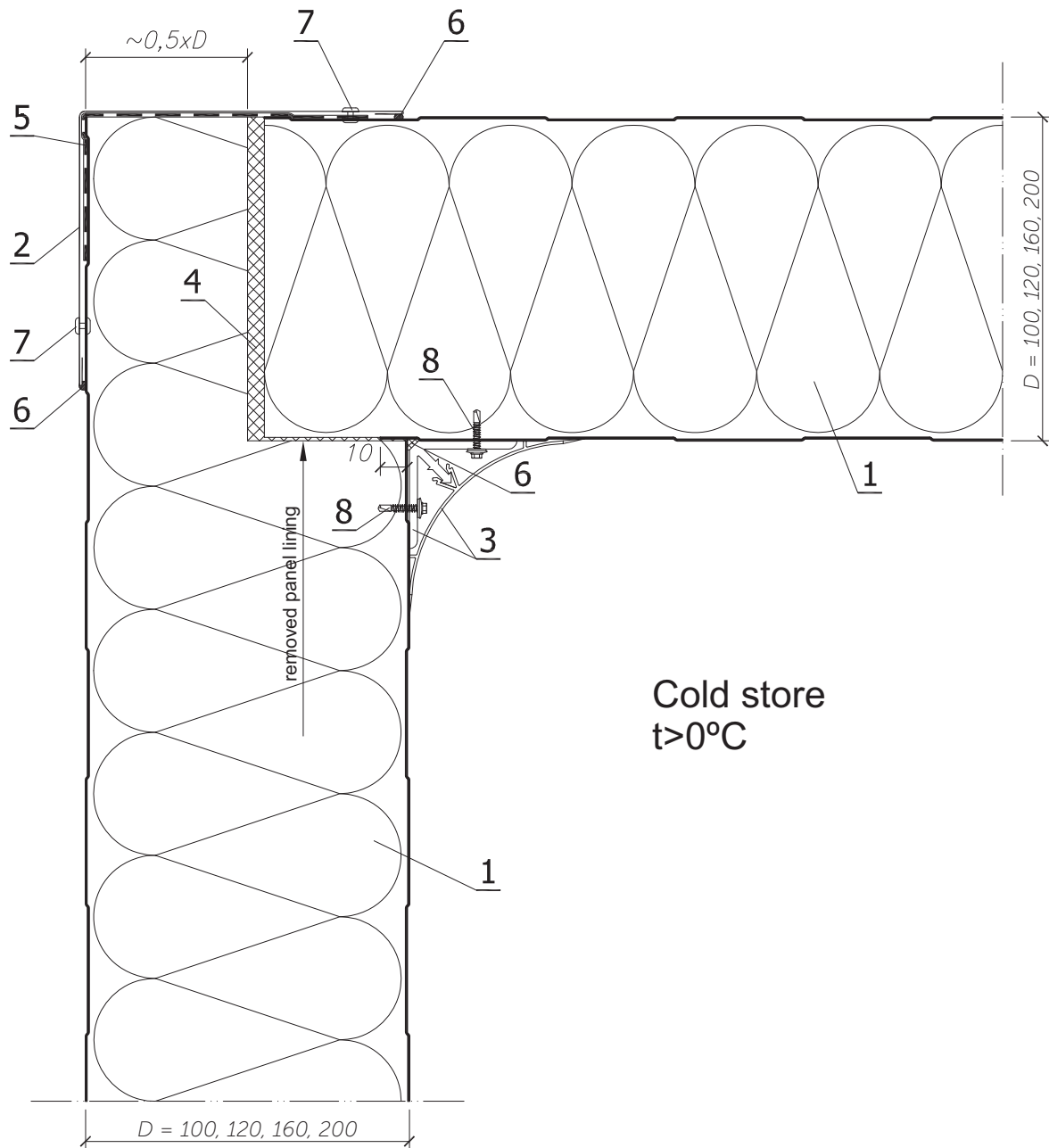
 Scale
 1:2.5

LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Masking flashing
3. PVC corner profile
4. Polyurethane mounting foam
5. Sealing plastic
6. One-side rivet 4.8 x 9.5
7. Self-drilling stainless fastener with seal



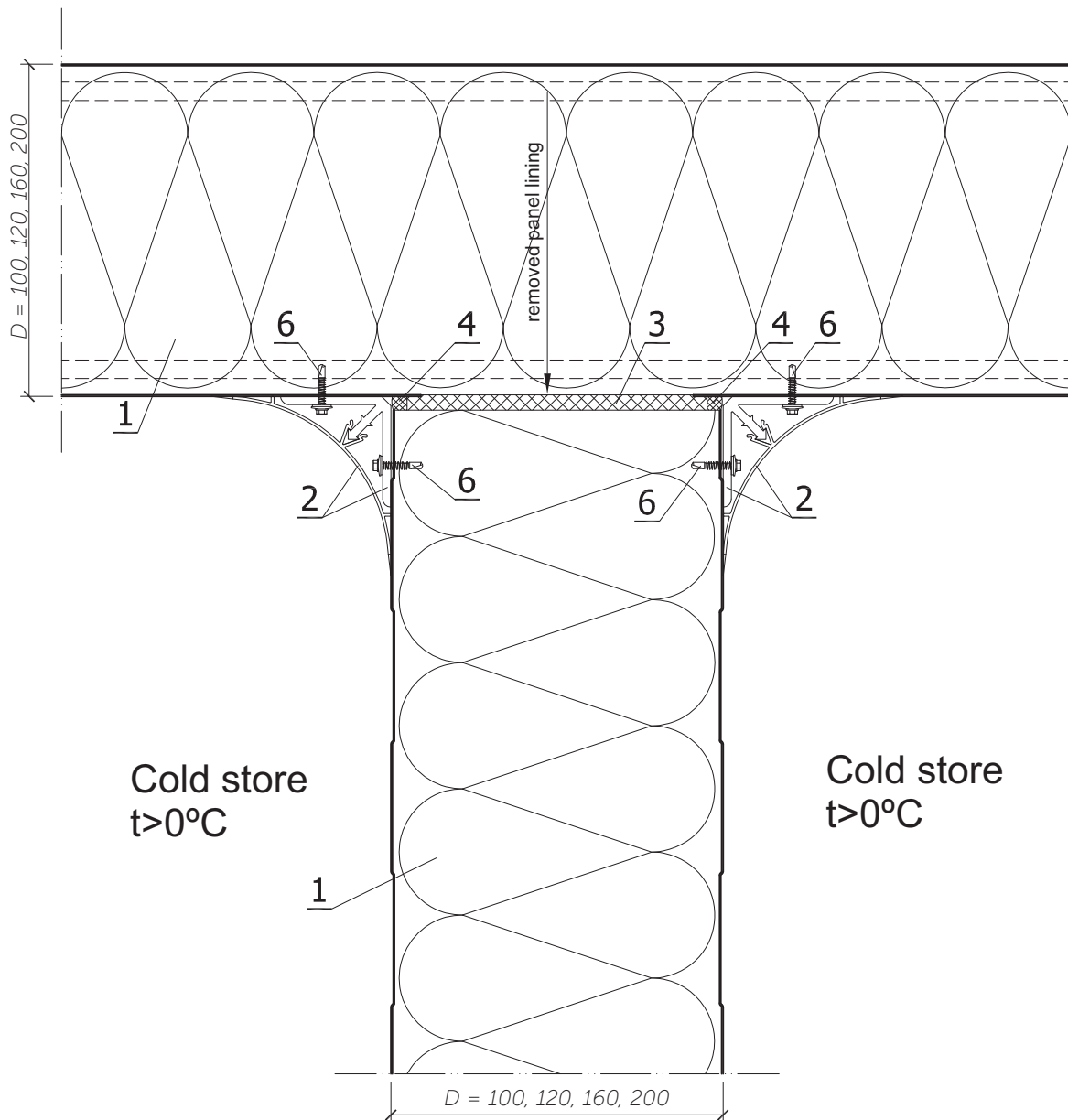
LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. PVC corner profile
3. Polyurethane mounting foam
4. Sealing plastic
5. One-side rivet 4.8 x 9.5
6. Self-drilling stainless fastener with seal



LEGEND:

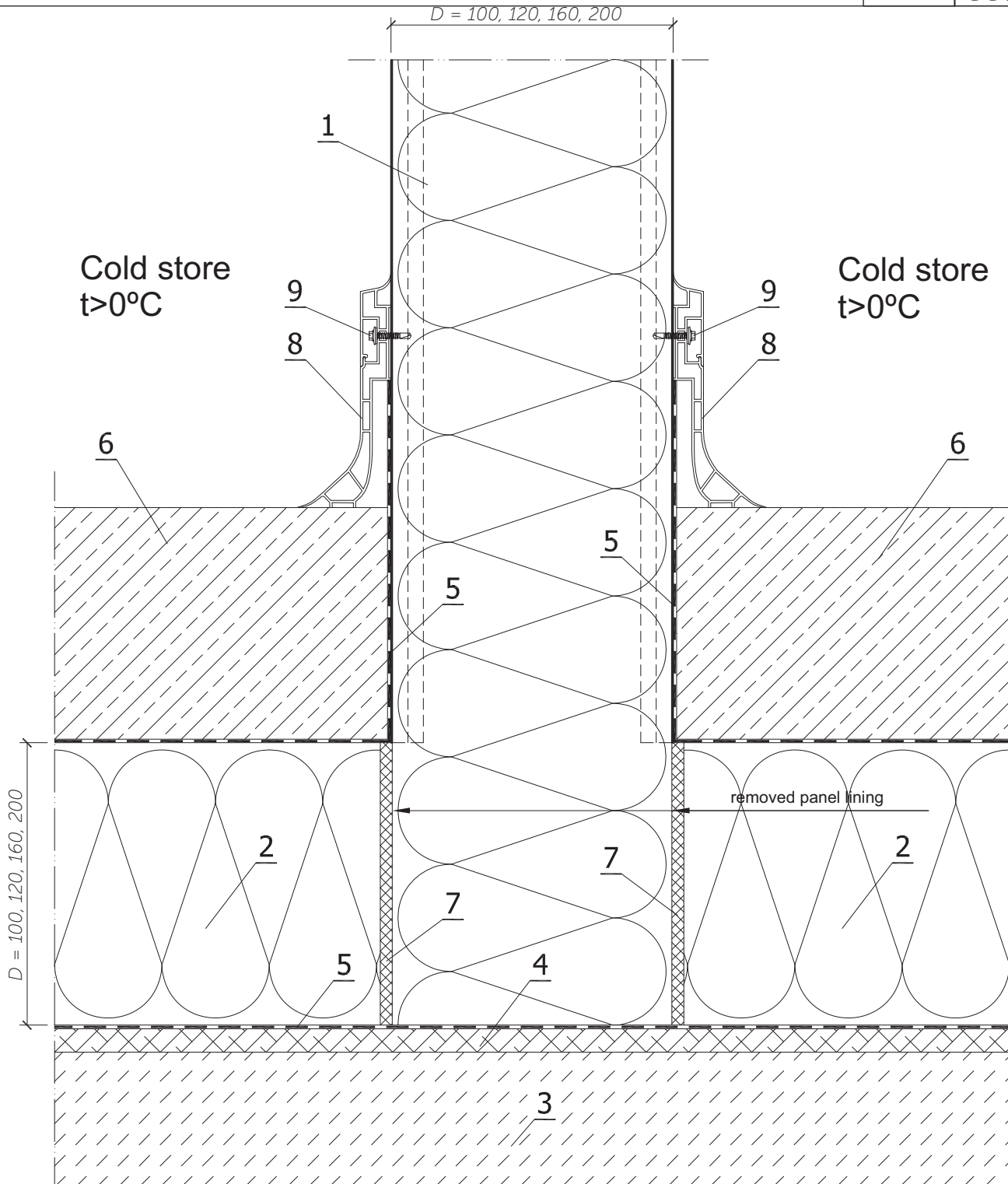
1. Coldstore panel GORLICKA CH 1000
2. Masking flashing
3. PVC corner profile
4. Polyurethane mounting foam
5. Vapour control layer – bitumen tape or polyethylene foil
6. Sealing plastic
7. One-side rivet 4.8 x 9.5
8. Self-drilling stainless fastener with seal



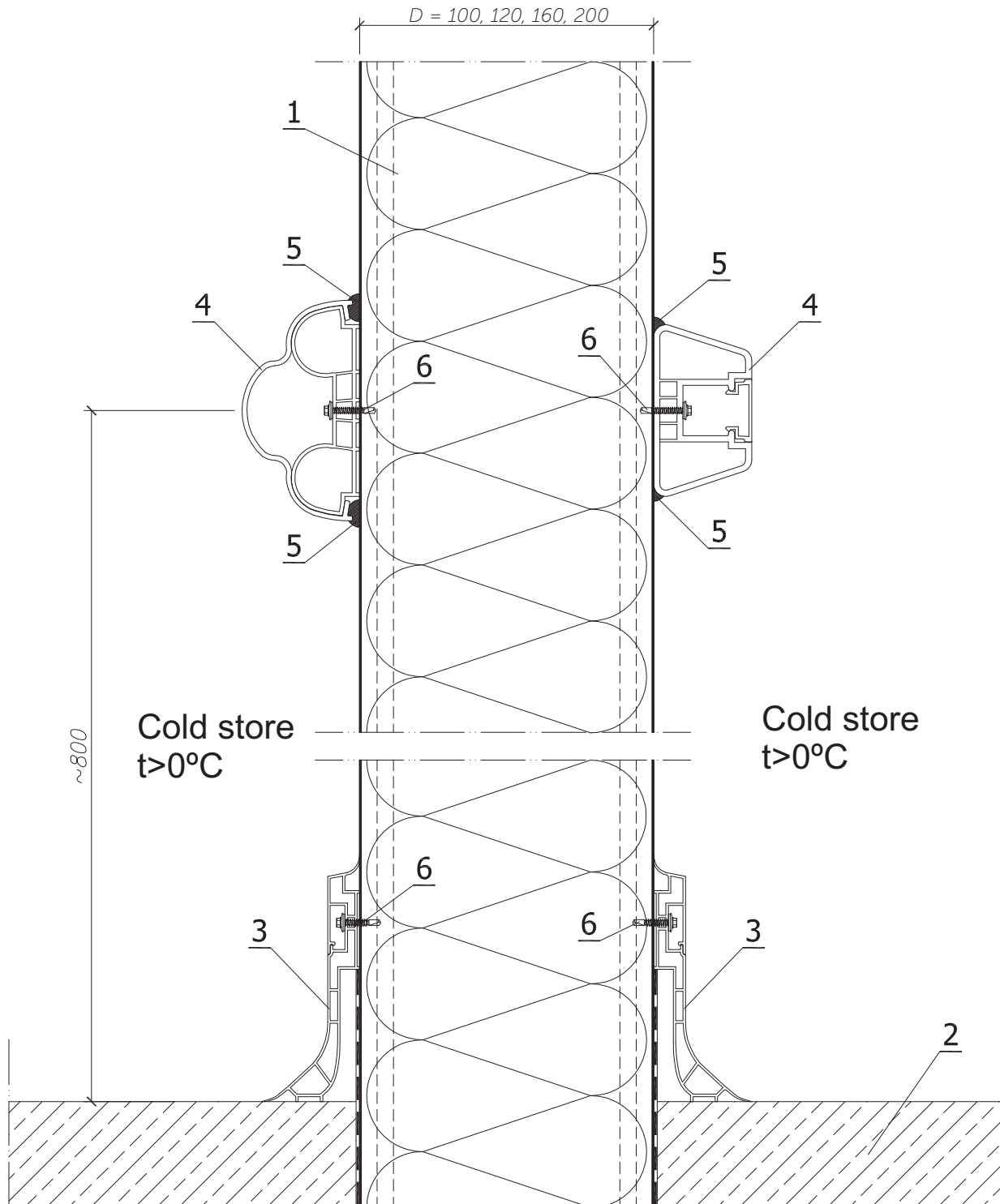
LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. PVC corner profile
3. Polyurethane mounting foam
4. Sealing plastic
5. One-side rivet 4.8 x 9.5
6. Self-drilling stainless fastener with seal

NOTE: The lining is removed only if the wall is perpendicular to the roof panel locks.

**LEGEND:**

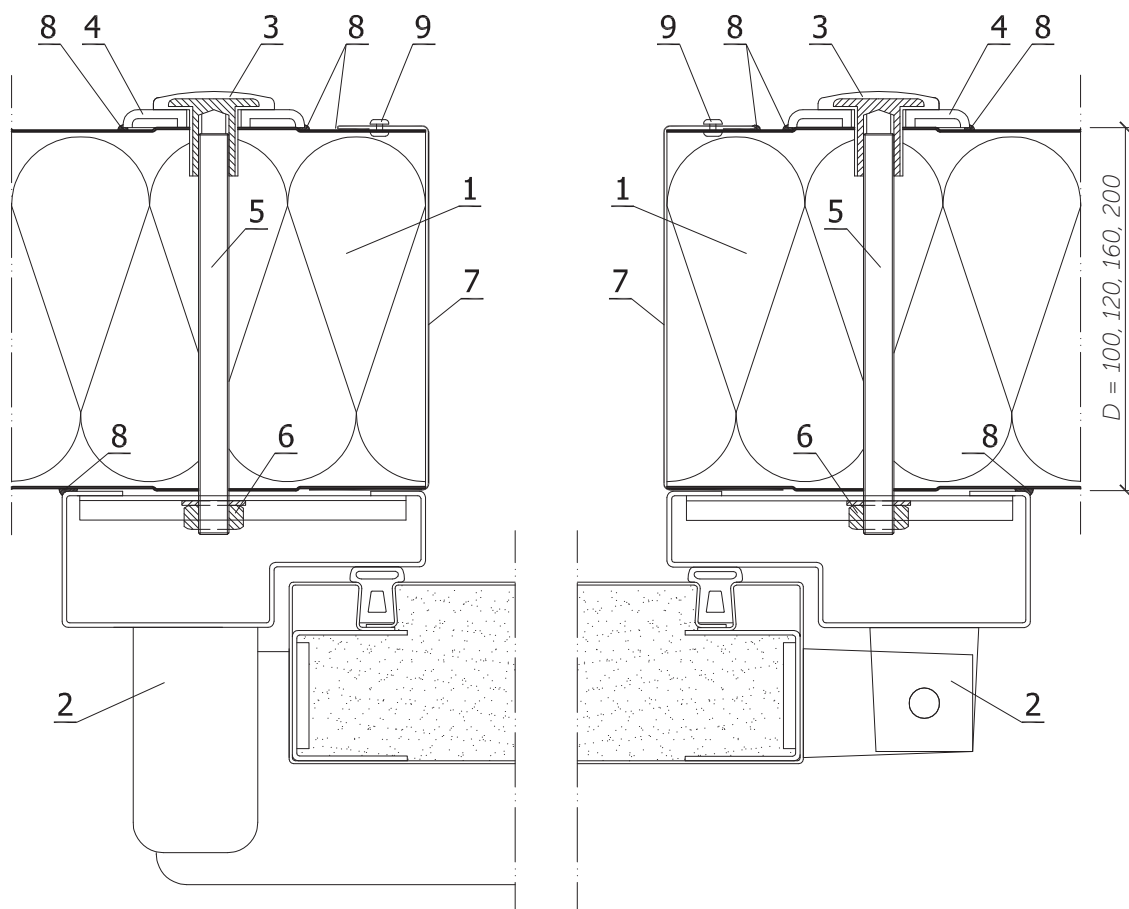
1. Coldstore panel GORLICKA CH 1000
2. Panel GORLICKA TERMO PIR PE
3. Concrete floor plate
4. Cement levelling layer
5. Vapour control layer – felt or PE foil
6. Concrete floor acc. to architectural design
7. Polyurethane mounting foam
8. PVC baseboard
9. Self-drilling stainless fastener with seal



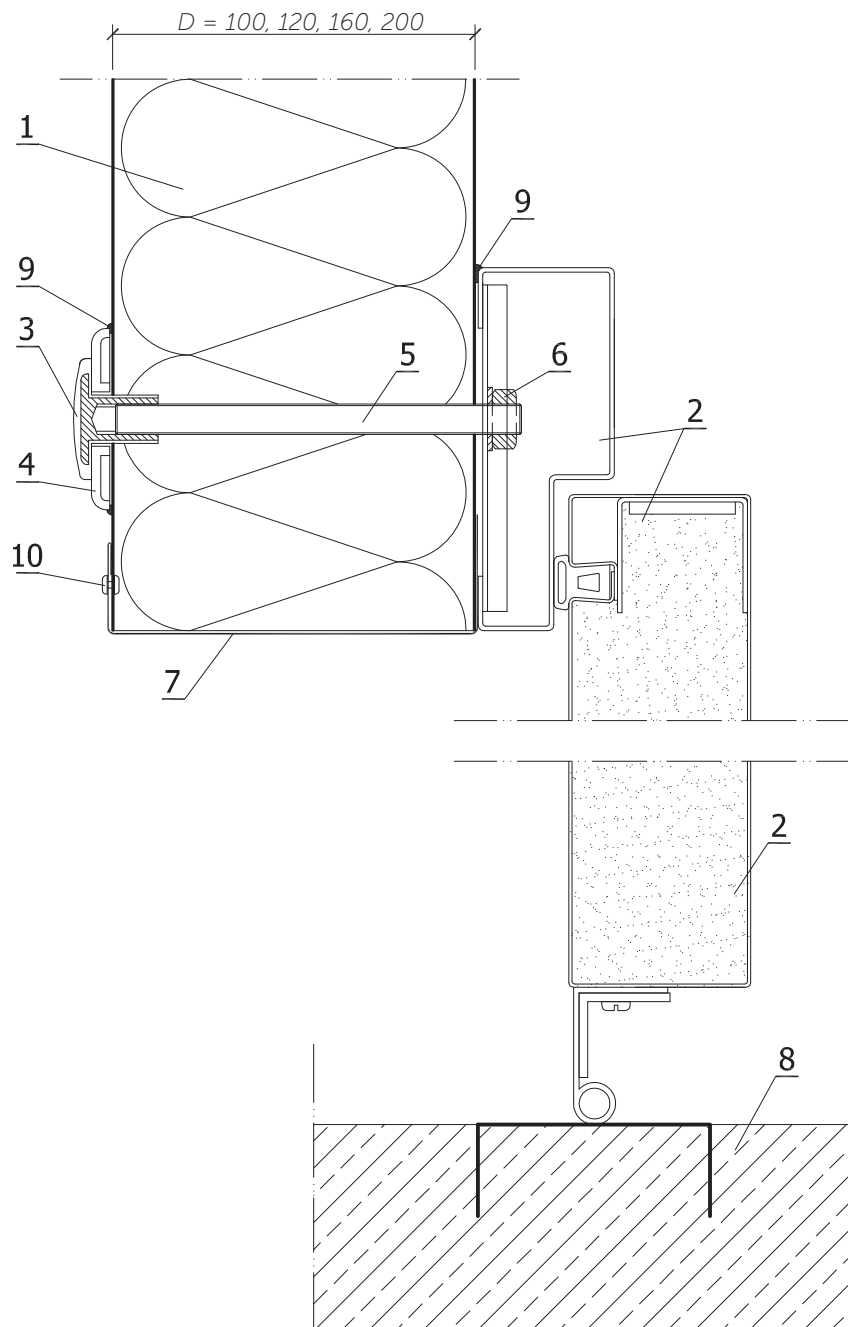
LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Floor acc. to architectural design
3. PVC baseboard
4. PVC fender rail
5. Plastic
6. Self-drilling stainless fastener with seal

Mounting of the cold store door
 Horizontal cross-section

 Scale
 1:2.5

LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Cold store door
3. PVC insulation ring with steel insert
4. PVC mounting washer
5. Steel galvanized threaded bar $\varnothing 10$
6. Steel galvanized nut M10 with washer $\varnothing 21 / \varnothing 10.5$
7. Closing flashing
8. Plastic
9. One-side rivet 4.8 x 9.5

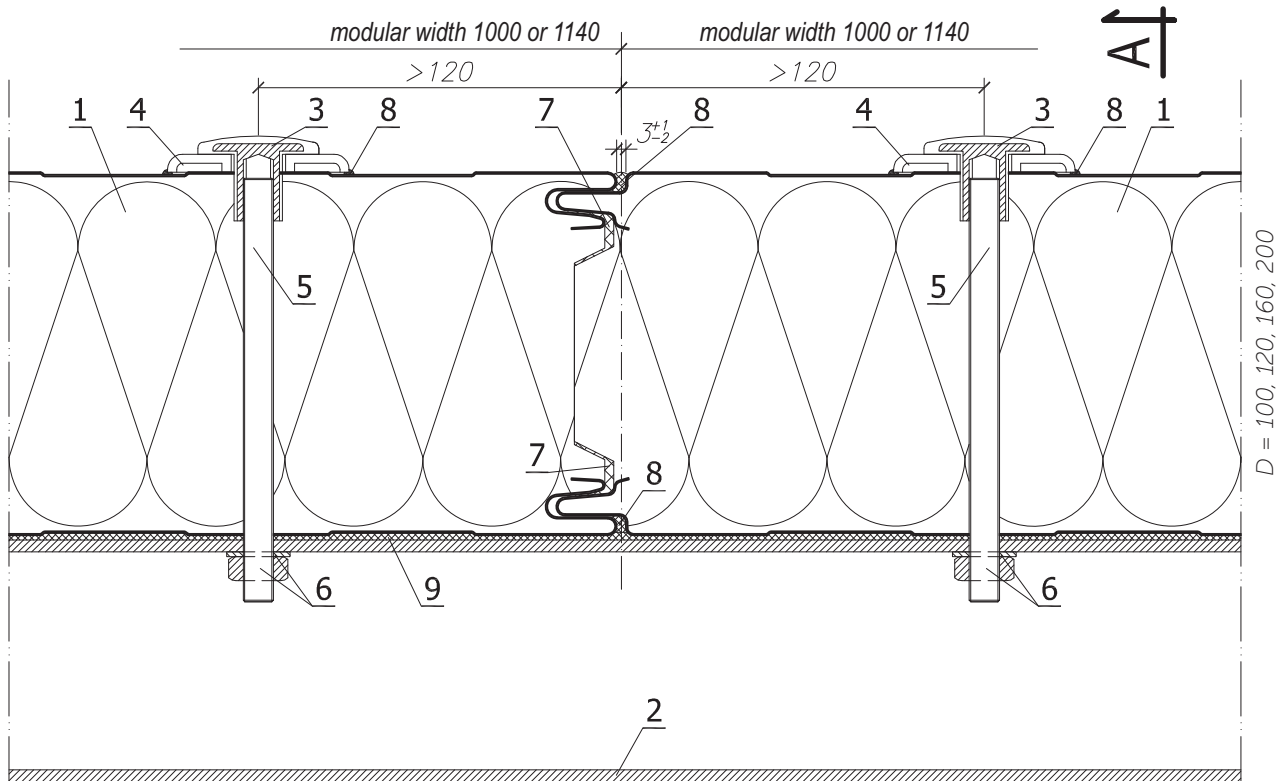


LEGEND:

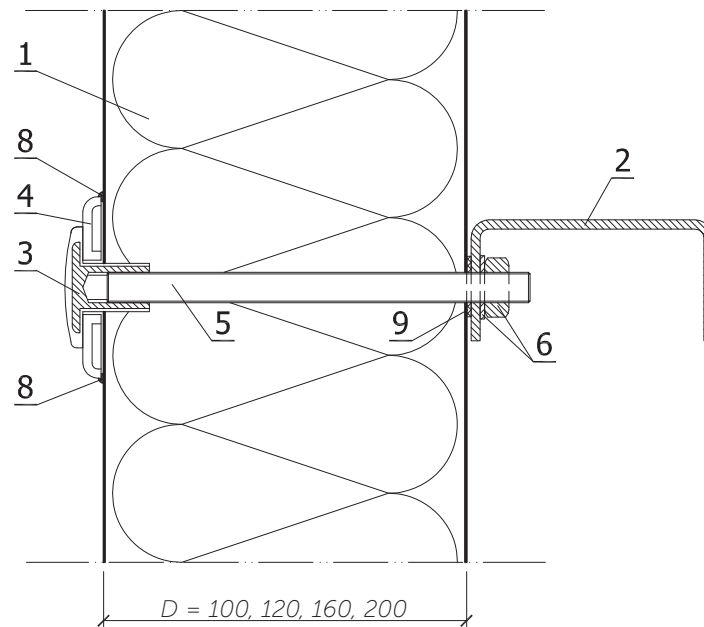
1. Coldstore panel GORLICKA CH 1000
2. Cold store door
3. PVC insulation ring with steel insert
4. PVC mounting washer
5. Steel galvanized threaded bar $\varnothing 10$
6. Steel galvanized nut M10 with washer $\varnothing 21 / \varnothing 10.5$
7. Closing flashing
8. Floor acc. to architectural design
9. Plastic
10. One-side rivet 4.8 x 9.5

Example details of freezers and warehouse rooms constructed with sandwich panels GORLICKA CH 1000

Mounting the coldstore panels. Rooms with negative temperature	24
Corner of the freezer wall. Option I	25
Corner of the freezer wall. Option II	26
Joining chambers with different temperatures	27
Corner of the wall panel and the roof panel	28
Mounting the coldstore panels to the roof support	29
Suspension of coldstore panels. Option I	30
Suspension of coldstore panels. Option II	31
Joining the partition wall with the roof	32
Freezer at the socle of the external wall. Option I	33
Freezer at the socle of the external wall. Option II	34
Partition wall at the floor. Option I	35
Partition wall at the floor. Option II	36
Mounting the freezer door. Horizontal cross-section	37
Mounting the freezer door. Vertical cross-section	38



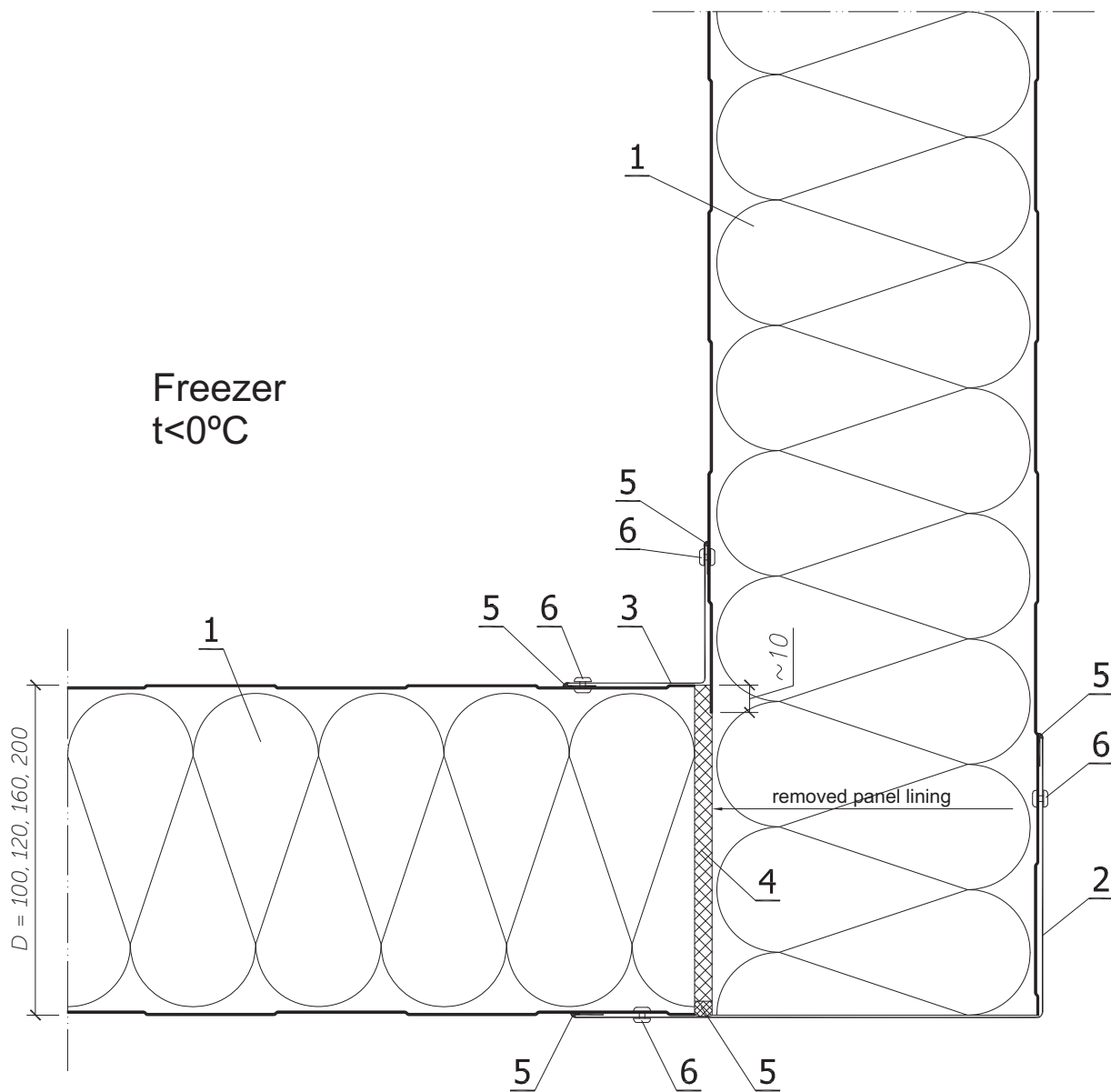
A-A cross-section



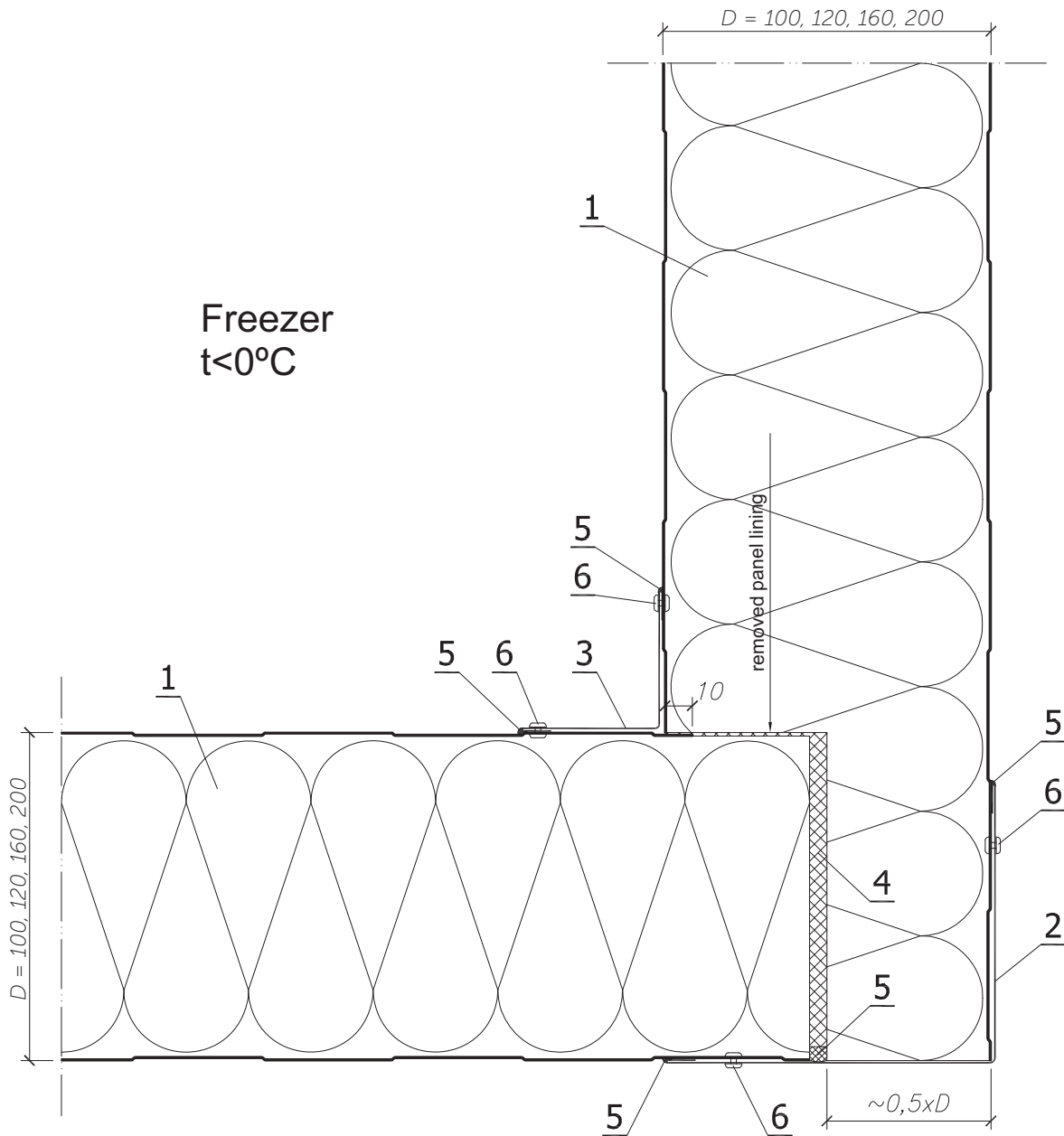
LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Support
3. PVC insulation ring with steel insert
4. PVC mounting washer
5. Steel galvanized threaded bar $\varnothing 10$
6. Steel galvanized nut M10 with washer $\varnothing 21 / \varnothing 10.5$
7. Polyurethane mounting foam
8. Sealing plastic
9. Self-adhesive sealing polyethylene tape (PES)

Corner of the freezer wall
 Option I

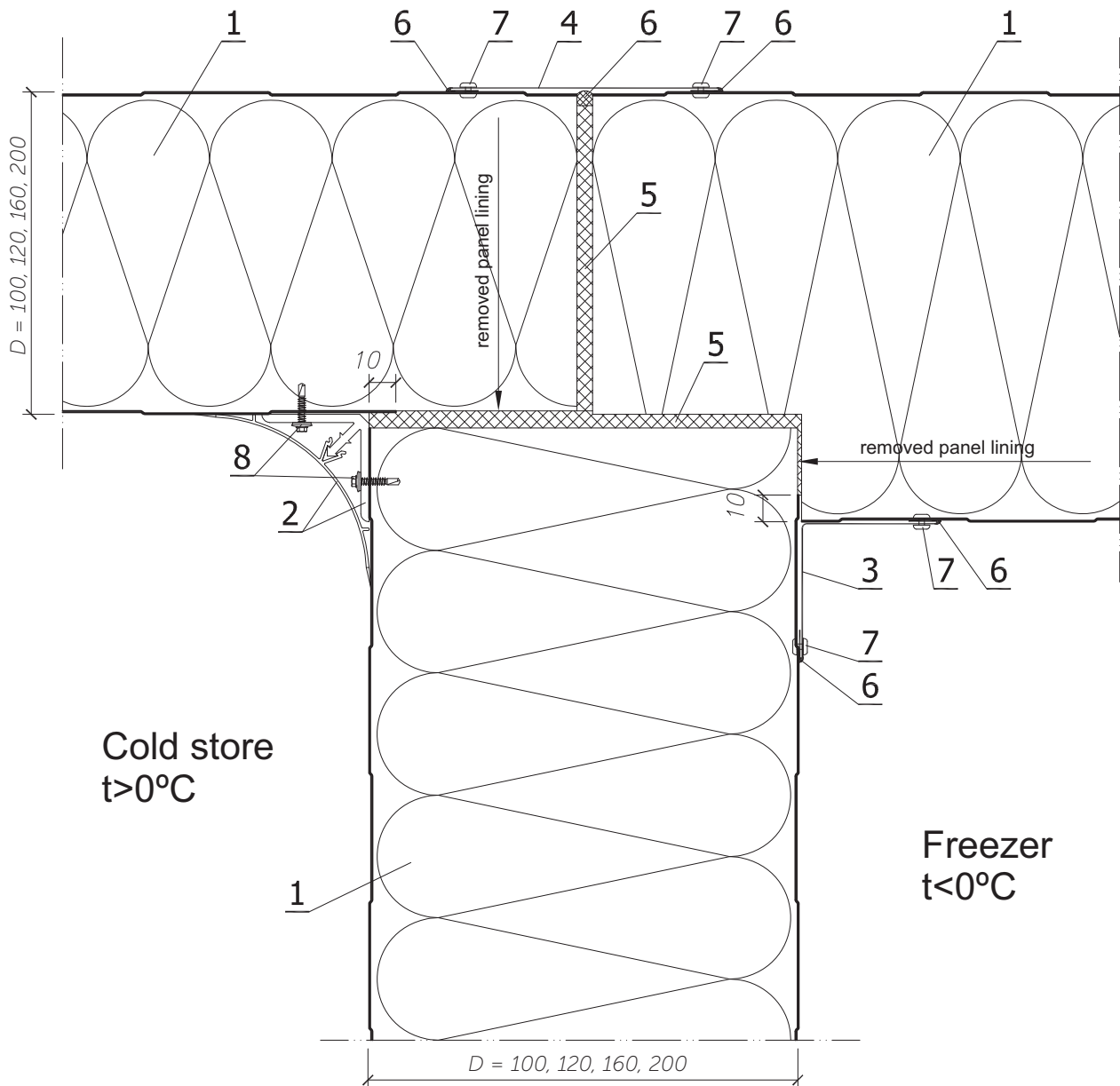
 Scale
 1:2.5

LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Flashing – external corner
3. Flashing – internal corner
4. Polyurethane mounting foam
5. Sealing plastic
6. One-side rivet 4.8 x 9.5

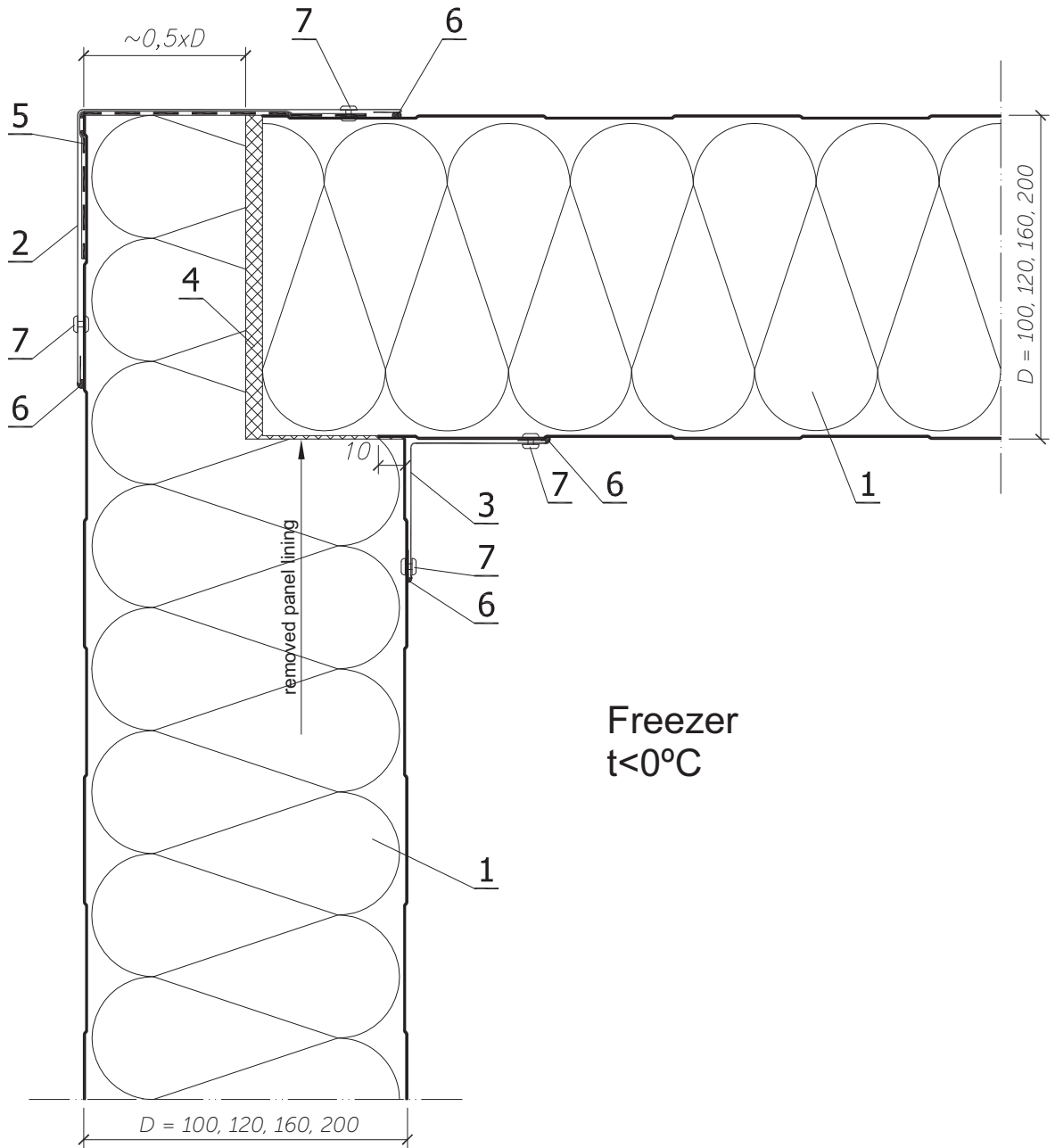


LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Flashing – external corner
3. Flashing – internal corner
4. Polyurethane mounting foam
5. Sealing plastic
6. One-side rivet 4.8 x 9.5

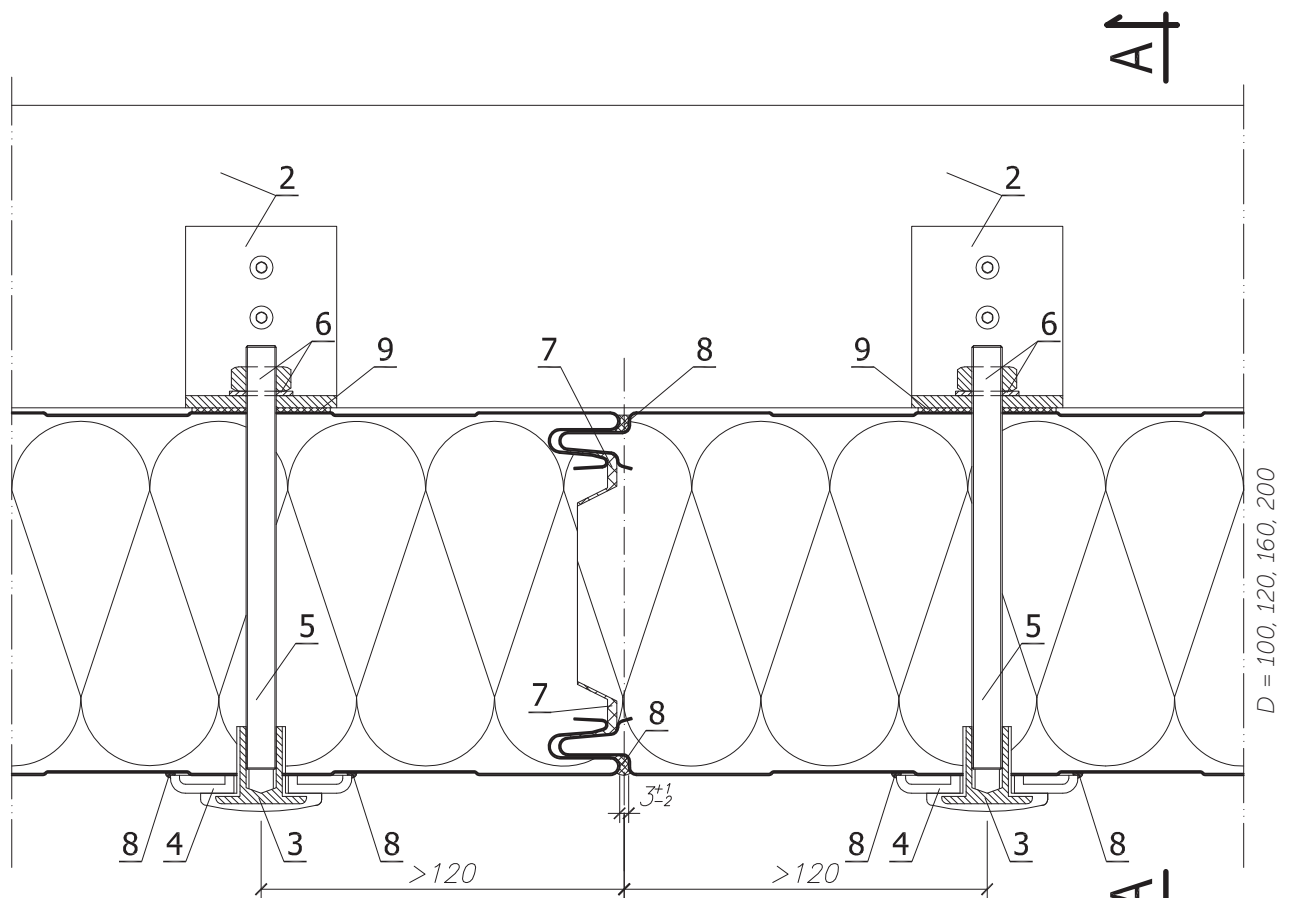
**LEGEND:**

1. Coldstore panel GORLICKA CH 1000
2. PVC corner profile
3. Flashing – internal corner
4. Masking flashing
5. Polyurethane mounting foam
6. Sealing plastic
7. One-side rivet 4.8 x 9.5
8. Self-drilling stainless fastener with seal



LEGEND:

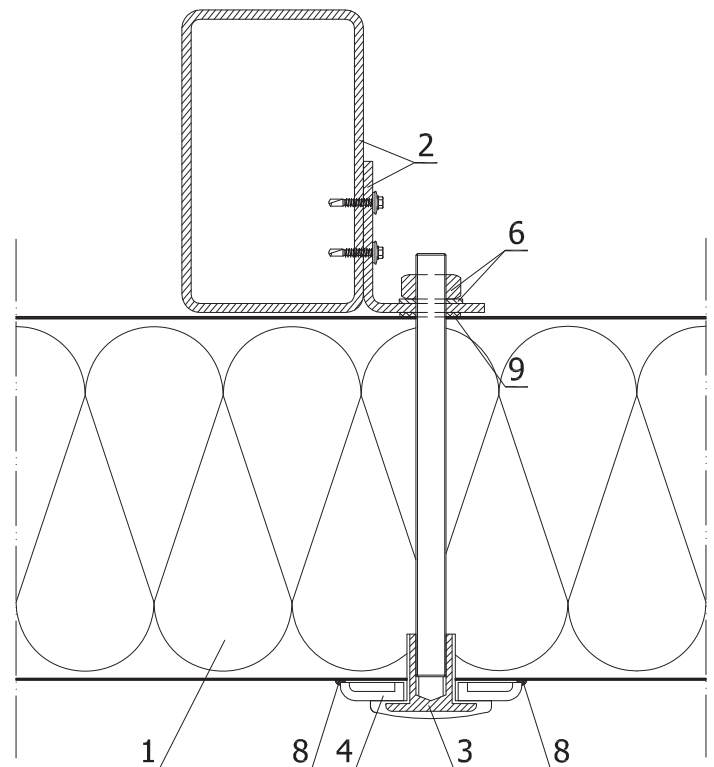
1. Coldstore panel GORLICKA CH 1000
2. Flashing – external corner
3. Flashing – internal corner
4. Polyurethane mounting foam
5. Vapour control layer – bitumen tape or polyethylene foil
6. Sealing plastic
7. One-side rivet 4.8 x 9.5

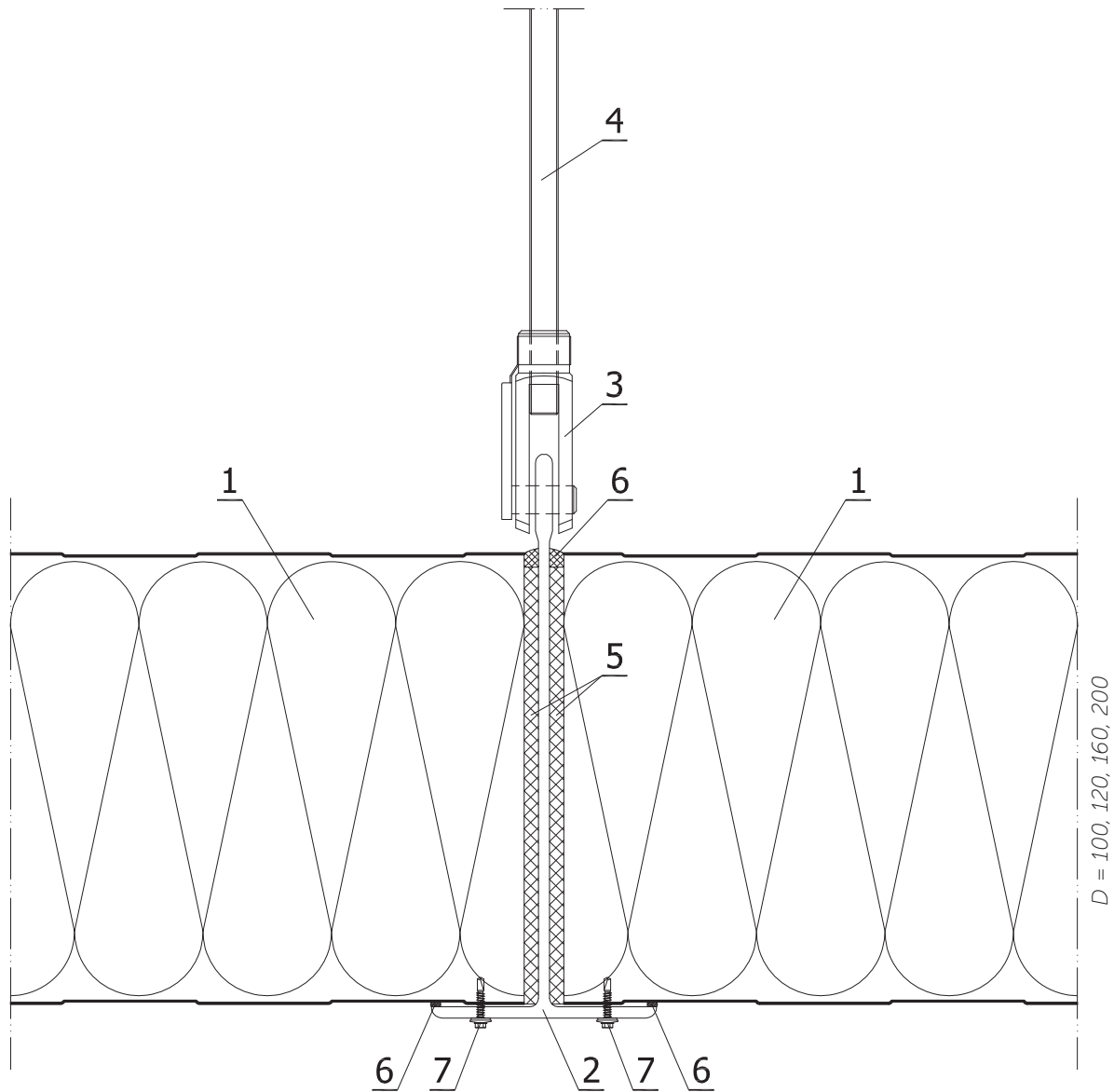


A-A cross-section

LEGEND:

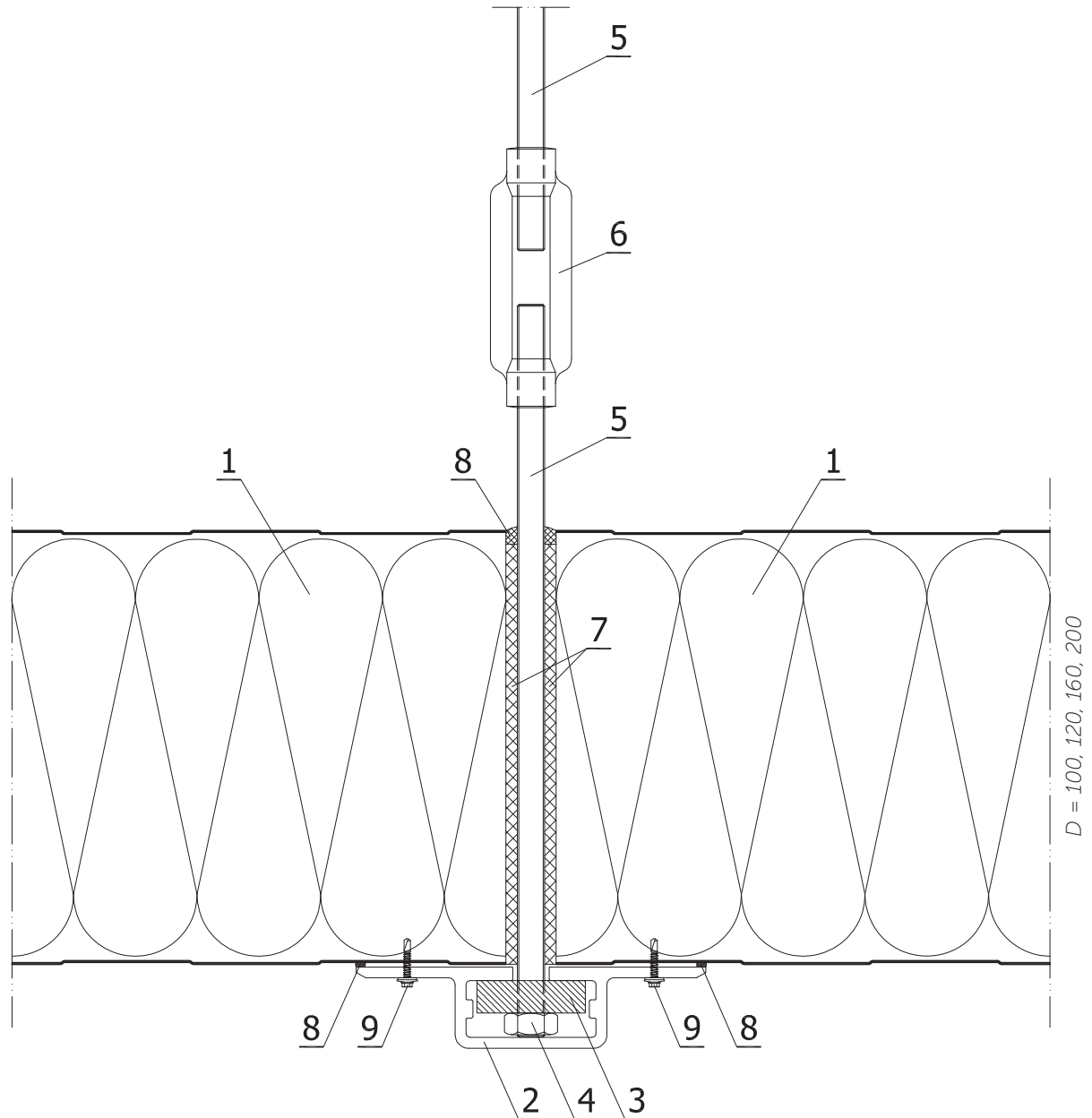
1. Coldstore panel GORLICKA CH 1000
2. Support
3. PVC insulation ring with steel insert
4. PVC mounting washer
5. Steel galvanizing threaded bar $\text{Ø} 10$
6. Steel galvanizing nut M10 with washer $\text{Ø} 21 / \text{Ø} 10.5$
7. Polyurethane mounting foam
8. Sealing plastic
9. Self-adhesive sealing polyethylene tape (PES)



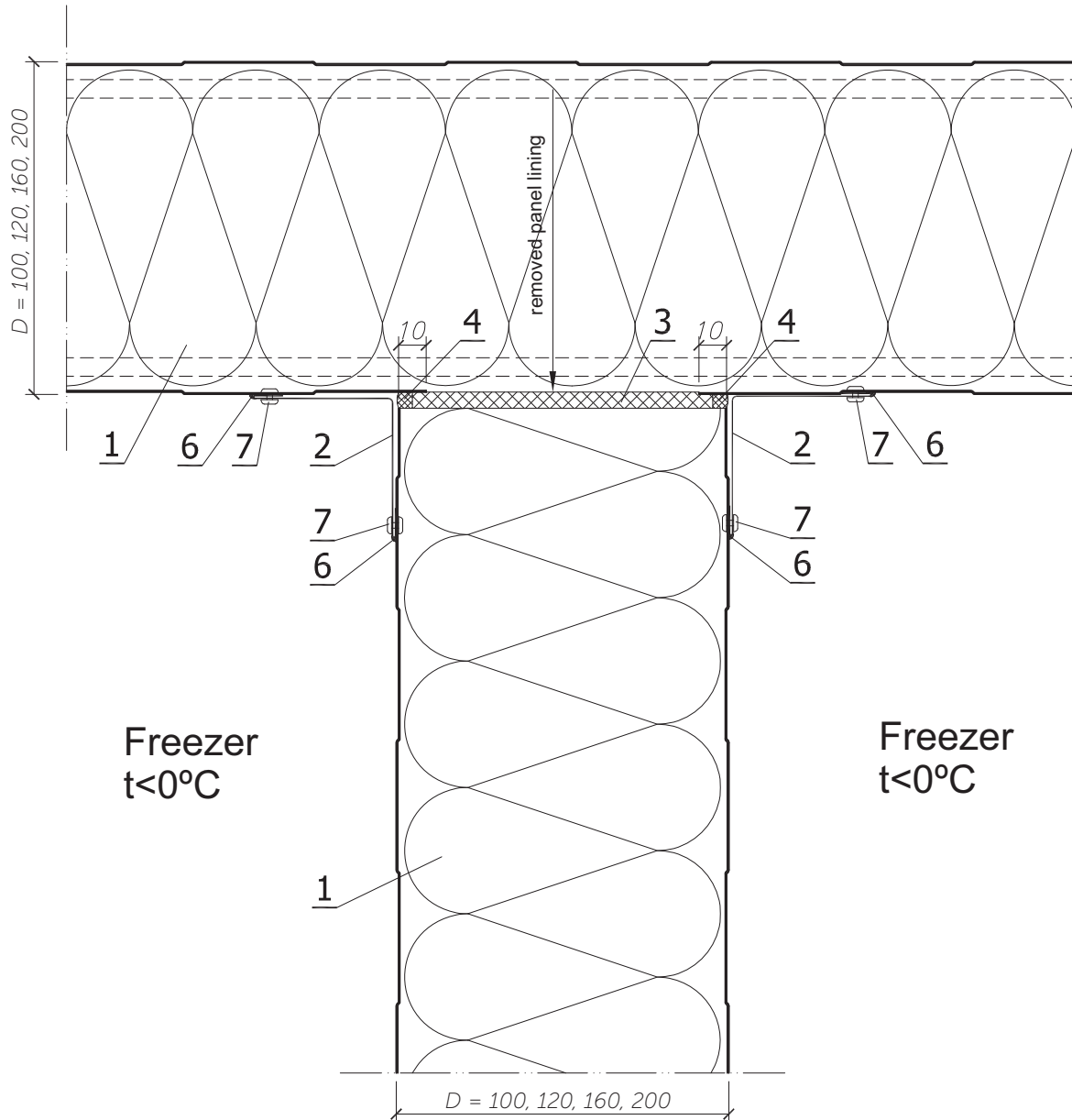


LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Polyester T-profile of the roof suspension
3. Steel mounting slings for T-profiles
4. Sling – steel threaded bar $\varnothing 10$
5. Polyurethane mounting foam
6. Sealing plastic
7. Self-drilling stainless fastener with seal

**LEGEND:**

1. Coldstore panel GORLICKA CH 1000
2. Polyester Ω -profile of the roof suspension
3. Steel spacer washer
4. Steel galvanized nut M10
5. Sling – steel threaded bar $\varnothing 10$
6. Steel tension nut
7. Polyurethane mounting foam
8. Sealing plastic
9. Self-drilling stainless fastener with seal



LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Flashing – internal corner
3. Polyurethane mounting foam
4. Sealing plastic
5. One-side rivet 4.8 x 9.5

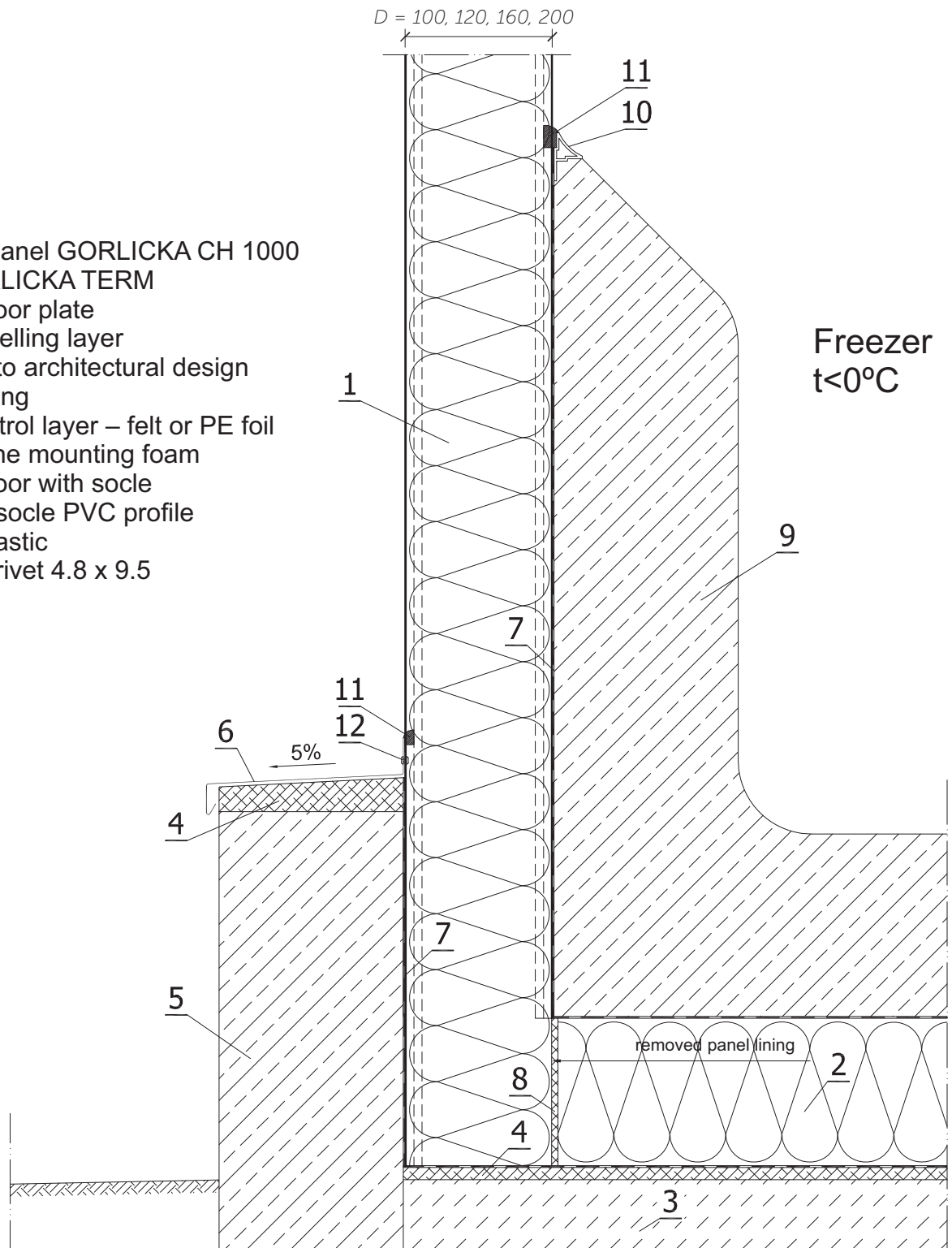
NOTE: The lining is removed only if the wall is perpendicular to the locks of the roof panel.

Freezer at the socle of the external wall
 Option I

 Scale
 1:5

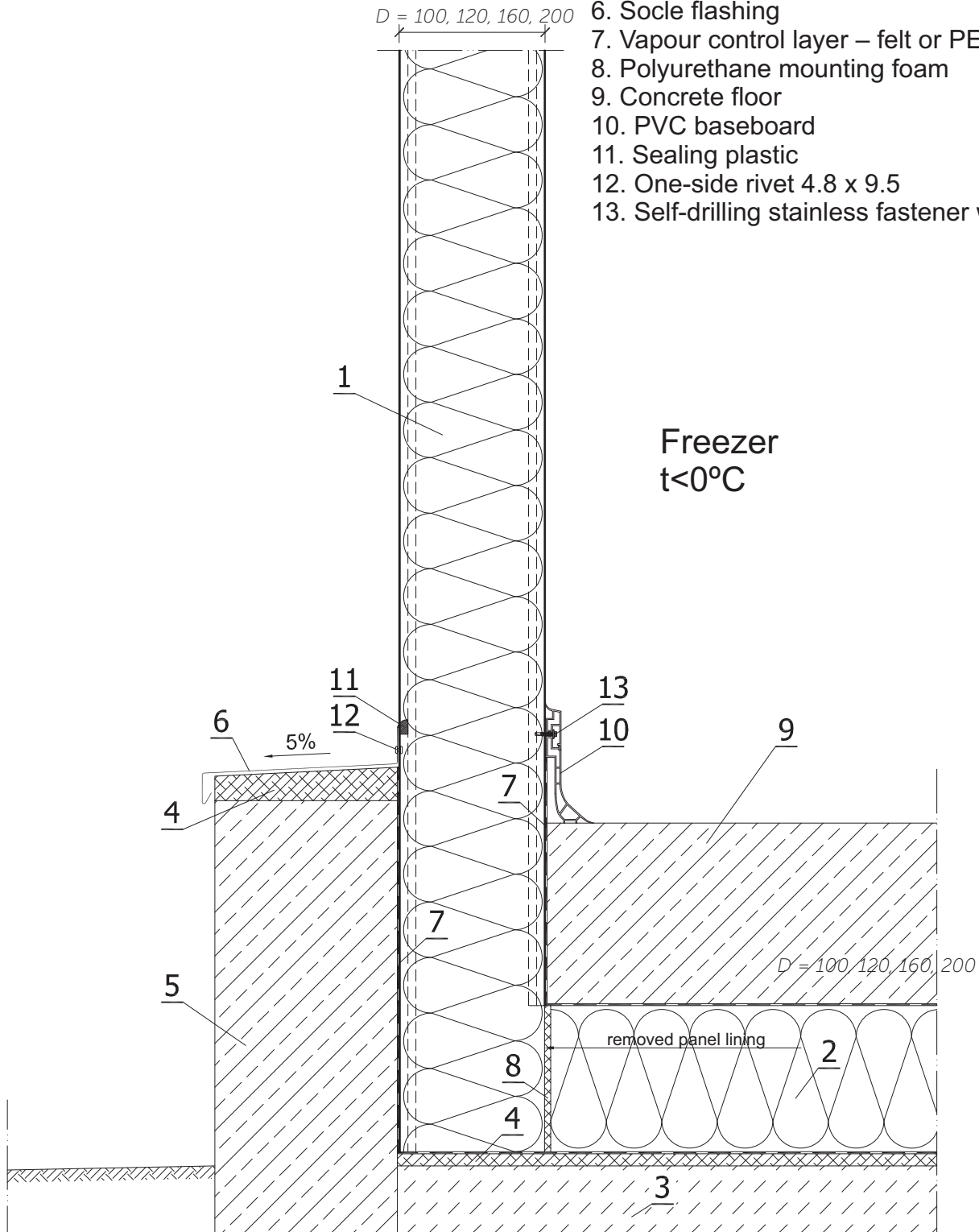
LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Panel GORLICKA TERM
3. Concrete floor plate
4. Cement levelling layer
5. Socle acc. to architectural design
6. Socle flashing
7. Vapour control layer – felt or PE foil
8. Polyurethane mounting foam
9. Concrete floor with socle
10. Concrete socle PVC profile
11. Sealing plastic
12. One-side rivet 4.8 x 9.5

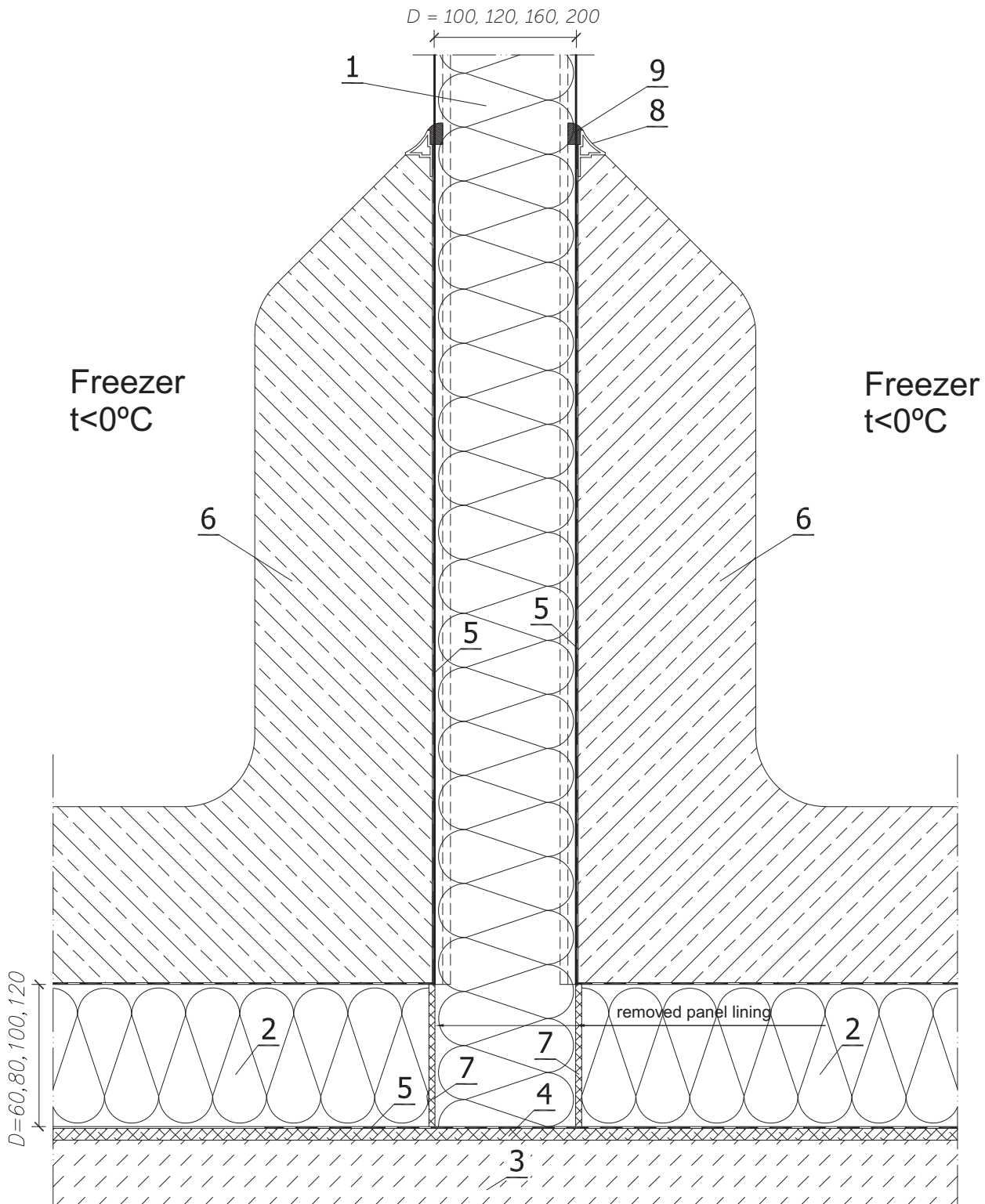


LEGEND:

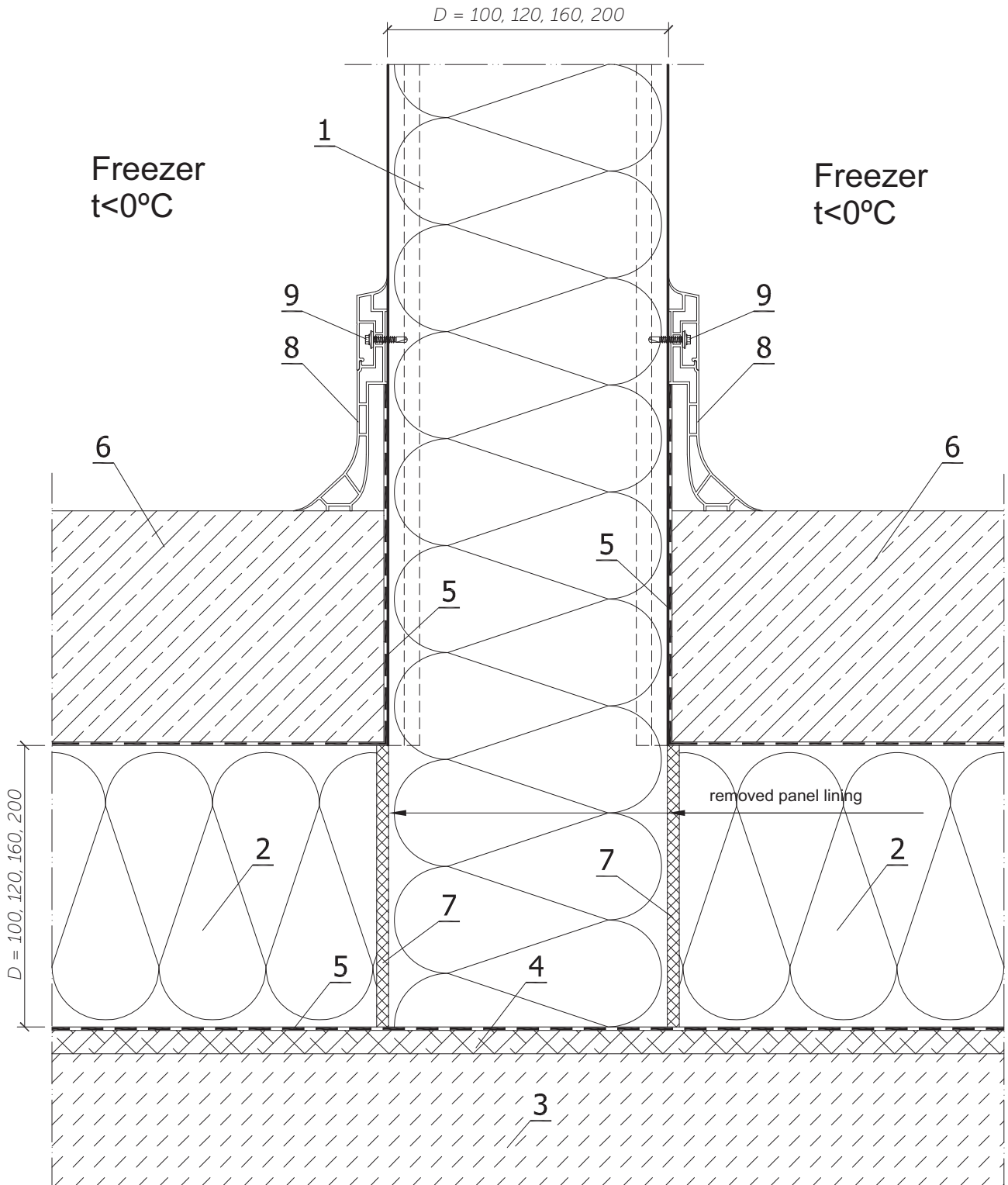
1. Coldstore panel GORLICKA CH 1000
2. Panel GORLICKA TERM
3. Concrete floor plate
4. Cement levelling layer
5. Socle acc. to architectural design
6. Socle flashing
7. Vapour control layer – felt or PE foil
8. Polyurethane mounting foam
9. Concrete floor
10. PVC baseboard
11. Sealing plastic
12. One-side rivet 4.8 x 9.5
13. Self-drilling stainless fastener with seal



Partition wall at the floor
 Option I

 Scale
 1:5
**LEGEND:**

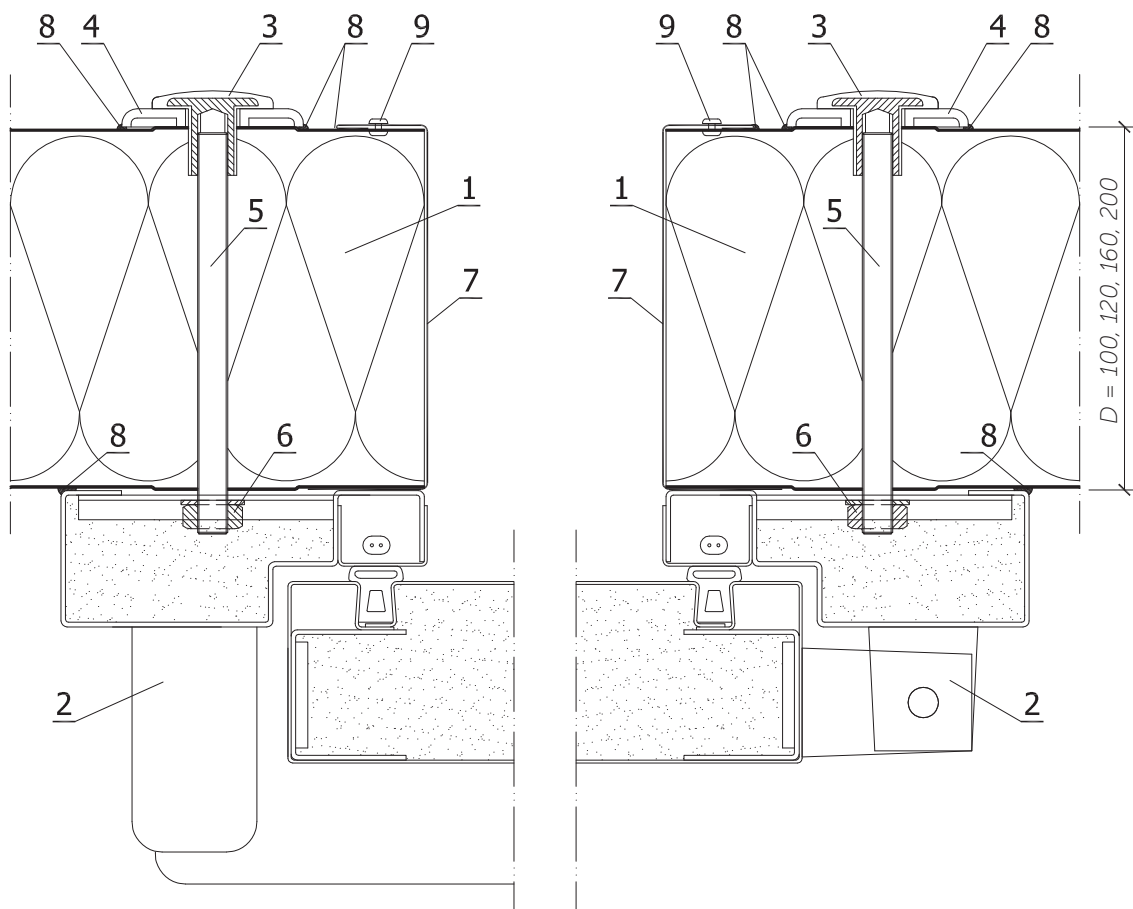
1. Coldstore panel GORLICKA CH 1000
2. Panel GORLICKA TERM
3. Concrete floor plate
4. Cement levelling layer
5. Vapour control layer – felt or PE foil
6. Concrete floor with socle
7. Polyurethane mounting foam
8. Concrete socle PVC profile
9. Sealing plastic



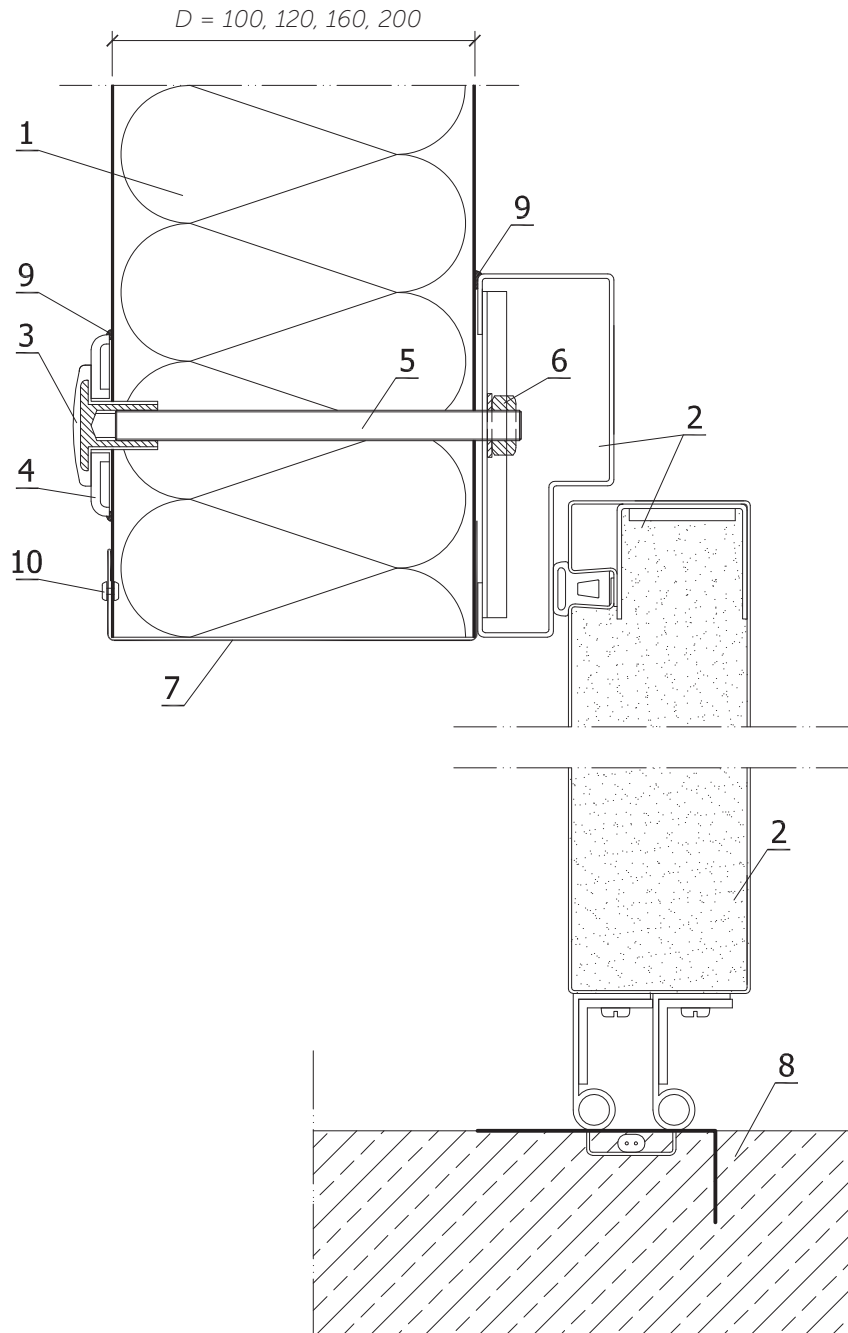
LEGEND:

- | | |
|---|--|
| 1. Coldstore panel GORLICKA CH 1000 | 6. Concrete floor acc. to architectural design |
| 2. Panel GORLICKA TERM | 7. Polyurethane mounting foam |
| 3. Concrete floor plate | 8. PVC baseboard |
| 4. Cement levelling layer | 9. Self-drilling stainless fastener with seal |
| 5. Vapour control layer – felt or PE foil | |

Mounting the freezer door
 Horizontal cross-section

 Scale
 1:2.5
**LEGEND:**

1. Coldstore panel GORLICKA CH 1000
2. Freezer door
3. PVC insulation ring with steel insert
4. PVC mounting washer
5. Steel galvanized threaded bar $\varnothing 10$
6. Steel galvanized nut M10 with washer $\varnothing 21 / \varnothing 10.5$
7. Closing flashing
8. Sealing plastic
9. One-side rivet 4.8 x 9.5



LEGEND:

1. Coldstore panel GORLICKA CH 1000
2. Freezer door
3. PVC insulation ring with steel insert
4. PVC mounting washer
5. Steel galvanized threaded bar $\varnothing 10$
6. Steel galvanized nut M10 with washer $\varnothing 21 / \varnothing 10.5$
7. Closing flashing
8. Floor acc. to architectural design
9. Sealing plastic
10. One-side rivet 4.8 x 9.5

ACCESSORIES

The coldstore panel housing system is supplemented with flashings, fasteners, sealing tapes, suspension systems and finishing strips.

FLASHINGS

Gór-Stal is equipped with a profiler able to produce steel sheet flashings up to 1.25 mm thick and 6 m long, in catalogue-typical or custom-made shapes. Available thicknesses and standard colours of the sheets are provided in the table below. The flashings are secured for transportation by means of foiling the external layer.

Sheet thickness [mm]	Sheet weight [kg/m ²]	Length of standard flashings [m]	Available length of flashings [m]	Sheet standard RAL colours
0.50	4.00	6.0	1.0-6.0	9002, 9010, 9006 9007, 5010, 1015 3000, 6029, 7016
0.70	6.00			zinc coating
1.00	8.00			

SEALS

We supply sealing tapes presented in the technical solutions of this catalogue, as well as in other dimensions on the client's request: self-adhesive polyurethane (PUS, PURS), polyethylene (PES) and butyl.

Because freezer chambers are constructed as sealed rooms, it is important to avoid negative pressure when freezing and de-frosting by means of pressure equalizing valves.

FASTENERS

Sandwich panel can be fixed to steel, concrete and wood constructions by means of dedicated fasteners.

In case of cold stores ($t > 0^{\circ}\text{C}$) it is possible to use self-drilling stainless steel screws.

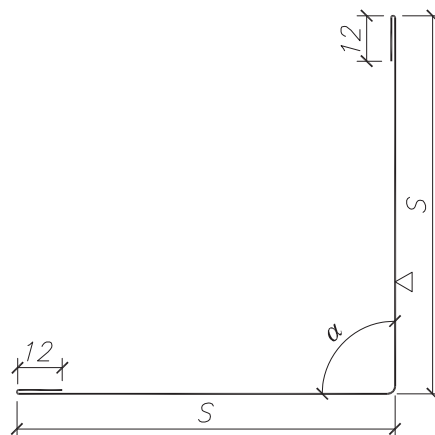
In freezing chambers it is necessary to apply fasteners preventing from freezing and condensation – PVC nuts with steel screws, polyamide screws or bolts and plastic suspension systems.

System fasteners are illustrated in the following tables.

Sandwich panel type and thickness [mm]	Fastener
stainless steel self-drilling screws	
Coldstore panel CH 1000	100 stainless screw 6.3/5.5 130 - 150
	120 stainless screw 6.3/5.5 150 - 160
	160 stainless screw 6.3/5.5 195 - 210
	200 stainless screw 6.3/5.5 230 - 235
thermo-insulating mounting elements	
Coldstore panel CH 1000	PVC mounting nut with washer – M8, M10, M12
	PVC mounting nut with steel insert and washer – M8, M10, M12
	polyamide mounting screw - M10, M12

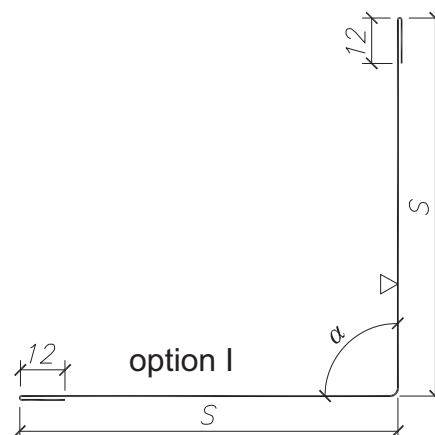
Flashing OB-01
external corner

Item	Symbol	W [mm]	α [°]	L [mm]	Weight [kg]
Standard – steel sheet 0.5 mm thick					
1	OB-01/25	25	90	6000	1.77
2	OB-01/50	50			2.97
3	OB-01/75	75			4.17
4	OB-01/100	100			5.37
5	OB-01/150	150			7.77
6	OB-01/200	200			10.17
7	OB-01/250	250			12.57
Non-standard – steel sheet 0.5 or 0.7 mm thick					
8	OB-01 / W=...../ α =...../L=.....				
9	OB-01 / W1=...../ W2=..... / α =...../L=.....				



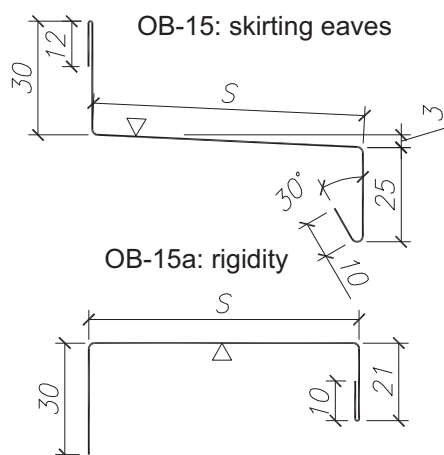
Flashing OB-02
internal corner

Item	Symbol	W [mm]	α [°]	L [mm]	Weight [kg]
Standard – steel sheet 0.5 mm thick					
1	OB-02/25	25	90	6000	1.77
2	OB-02/50	50			2.97
3	OB-02/75	75			4.17
4	OB-02/100	100			5.37
5	OB-02/150	150			7.77
6	OB-02/200	200			10.17
7	OB-02/250	250			12.57
Non-standard – steel sheet 0.5 or 0.7 mm thick					
8	OB-02 / W=...../ α =...../L=.....				
9	OB-02 / W1=...../ W2=..... / α =...../L=.....				



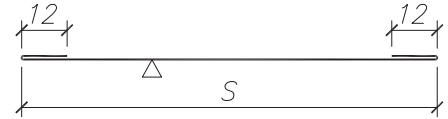
Flashing OB-15 - skirting eaves
OB-15 + Ob15a - skirting eaves with rigidity

L.p.	Symbol	S [mm]	α [°]	L [mm]	Masa [kg]
Typowa - z blachy gr. 0.5 mm					
1	OB-15/70	70	-	6000	3.53
2	OB-15/90	90			4.00
3	OB-15/110	110			4.48
Nietypowa z blachy gr. 0.5 lub 0.7 mm					
4	OB-15/ S=..... / L=.....				
Typowa - z blachy gr. 0.5 mm					
5	OB-15a/70	70	-	6000	3.14
6	OB-15a/90	90			3.62
7	OB-15a/110	110			4.10
Nietypowa z blachy gr. 0.5 lub 0.7 mm					
6	OB-15a/ S=..... / L=.....				



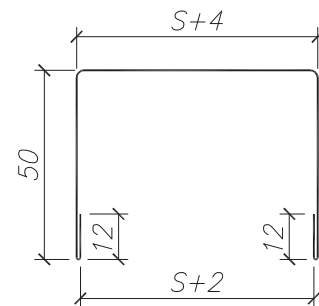
Flashing OB-18
masking

Item	Symbol	W [mm]	α [°]	L [mm]	Weight
Standard – steel sheet 0.5 mm thick					
1	OB-18/50	50	-	6000	1.77
2	OB-18/75	75			2.37
3	OB-18/100	100			2.97
4	OB-18/120	120			3,45
Non-standard – steel sheet 0.5 or 0.7 mm thick					
5	OB-18 / W=..... / L=.....				

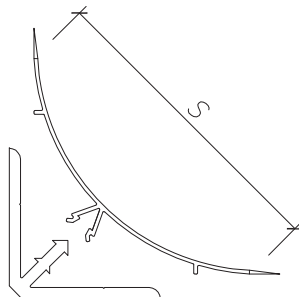


Flashing OB-36
panel closing

Item	Symbol	W [mm]	α [°]	L [mm]	Weight [kg]
Standard – steel sheet 0.5 mm thick					
1	OB-02/25	25		6000	1.77
2	OB-02/50	50			2.97
3	OB-02/75	75			4.17
4	OB-02/100	100			5.37
5	OB-02/150	150			7.77
6	OB-02/200	200			10.17
7	OB-02/250	250			12.57
Non-standard – steel sheet 0.5 or 0.7 mm thick					
8	OB-02 / W=...../ α =...../L=.....				
9	OB-02 / W1=...../ W2=..... / α =...../L=.....				

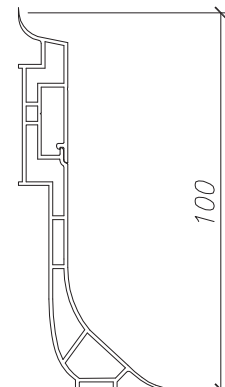


Board L-01
universal corner board



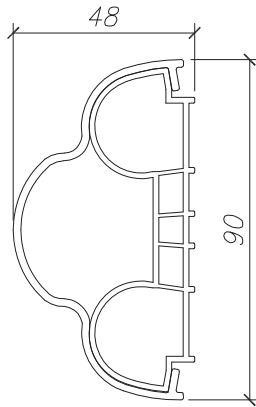
Item	Symbol	W [mm]	L [mm]	RAL
Standard PVC				
1	L-01/40	40	4000	9002, 9010, 9005, 5010, 6018, 3020, 1021
2	L-01/85	85		

Board L-02
baseboard

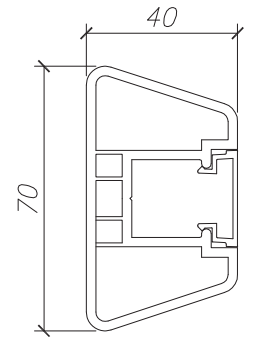


Item	Symbol	W [mm]	L [mm]	RAL
Standard PVC				
1	L-02	100	4000	9002, 9010, 9005, 5010, 6018, 3020, 1021

Board L-03
fender board



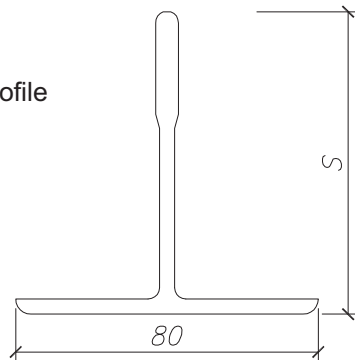
Board L-04
reinforced fender board



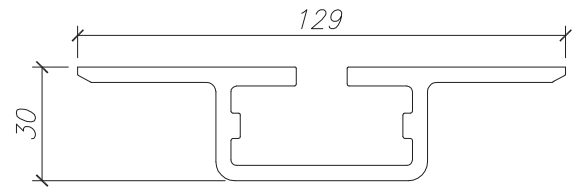
Item	Symbol	W [mm]	L [mm]	RAL
Standard PVC				
1	L-03	90	4000	9002, 9010, 9005, 5010, 6018, 3020, 1021

Item	Symbol	W [mm]	L [mm]	RAL
Standard PVC				
1	L-04	70	4000	9002, 9010, 9005, 5010, 6018, 3020, 1021

Profile P-01
roof suspension T-profile



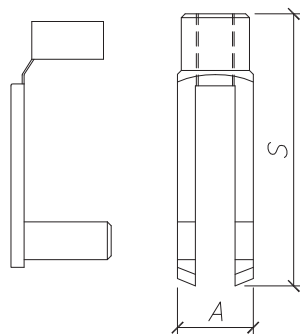
Profile P-02
roof suspension Ω-profile



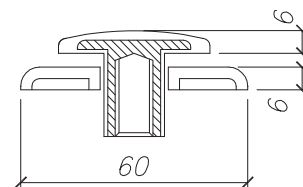
Item	Symbol	W [mm]	L [mm]	RAL
Standard – reinforced polyester				
1	P.-01/80	80	4000	9002, 9010
2	P.-01/200	200		

Item	Symbol	W [mm]	L [mm]	RAL
Standard – reinforced polyester				
1	P.-02	70	4000	9002, 9010

Sling W-01
mounting sling



Nut N-01
fixing nut with washer



Item	Symbol	W [mm]	L [mm]	RAL
Standard – steel				
1	W-01/M8	58	16	zinc coating
2	W-01/M10	72	20	
3	W-01/M12	85	24	

Item	Symbol	W [mm]	L [mm]	RAL
Standard – PVC with steel insert				
1	S-01/M8	58	16	9002, 9010, 9006
2	S-01/M10	72	20	
3	S-01/M12	85	24	

ORDER FORM of
SANDWICH PANELS

ORDER

No of

SUPPLIER: (name, company address, phone/fax, TIN)

Gór-Stal sp. z o.o.

ul. Przemysłowa 11
38-300 Gorlice

Phone/Fax: (18) 353 98 00

Account No: 79 1140 1081 0000 5859 5500 1001

Agent:



Commercial Terms

Payment method:

Advance (%): payable until:

Maturity:

Credit limit:

Remarks:

ORDERING PARY (name, company address, phone/fax, TIN)

DELIVERY PLACE (recipient, address, city, post code, phone/fax)

Agent:

REMARKS:

	Plate type:	Plate thickness [mm]:	Plate profile:		Plate width [mm]:	Colour RAL		Quantity		Net price: Unit/value	
			L - linear	M - microprofiled		ext.	int.	ext.	int.	L [m]	pcs.
	GORLICKA S 1000	40 60 80 100			1000						
	GORLICKA U 1000	60 80 100			1100						
	GORLICKA D 1000	40 60 80 100 120			1140						
	GORLICKA CH 1000	100 120 160 200									
	GORLICKA S 1000 GS-PIR	40 60 80 100									
	GORLICKA U 1000 GS-PIR	60 80 100									
	GORLICKA D 1000 GS-PIR	40 60 80 100 120									
	GORLICKA CH 1000 GS-PIR	100 120 160 200									
1.											
2.											
3.											
4.											
5.											
6.											
7.											
8.											
9.											
10.											
11.											
12.											
13.											
14.											
15.											
IN TOTAL:									[m²]:		EUR:

ORDER FORM of
INDIVIDUAL FLASHING

ORDER

No of

SUPPLIER: (name, company address, phone/fax, TIN)

Gór-Stal sp. z o.o.

ul. Przemysłowa 11
38-300 Gorlice

Phone/Fax: (18) 353 98 00

Account No: 79 1140 1081 0000 5859 5500 1001

Agent:



DELIVERY PLACE (recipient, address, city, post code, phone/fax)

SUPPLIER (name, company address, phone/fax, TIN)

No	Plate thickness [mm]	Colour RAL	Length [m]	Quantity [pcs]

No	Plate thickness [mm]	Colour RAL	Length [m]	Quantity [pcs]

No	Plate thickness [mm]	Colour RAL	Length [m]	Quantity [pcs]

No	Plate thickness [mm]	Colour RAL	Length [m]	Quantity [pcs]

REMARK!

Flashing will be made acc. to the above drawings and their dimensions.

Ordering Party's signature



DECLARATION OF PERFORMANCE
GORLICKA CHŁODNICZA PU

App. 5 for P-07



1.	Unique identification code of the product type	GORLICKA CHŁODNICZA
2.	Number of type, batch or serial number to identify the construction product	Refer to the product label, and the label on the boards
3.	The use of the construction product in accordance with the harmonized technical specification	Sandwich panels GORLICKA CHŁODNICZA are designed for walls and ceilings in rooms with low temperatures - cold ($t > 0^{\circ}\text{C}$) and freezers ($t < 0^{\circ}\text{C}$), and other facilities with controlled temperature and humidity - storages and food processing companies
4.	The name and contact address of the manufacturer	GÓR – STAL sp. z o.o. ul. Przemysłowa 11 38 - 300 Gorlice
5.	The system or systems of assessment and verification of constancy of performance of construction product	System 3
6.	Reference and date of issue of the harmonized standard to identify individuals (body and / or TAB)	PN-EN 14509:2010P INSTYTUT TECHNIKI BUDOWLANEJ in Warsaw determines the type of product in the system 3 FIRES, sro, Osloboditeľov 282, 05935 Batizovce, Slovakia carry out the fire resistance tests

7. The declared performances

The essential characteristics	The performance of		Harmonized technical specification
The mechanical properties	- Metal genre	S220GD, S250GD, S280GD	PN-EN 10326:2006
	- Thickness of the metal	0,50 [mm]	PN-EN 10143:2008
	- Tensile strength perpendicular to the plate	≥ 100 [kPa]	PN-EN 1607:1999
	- Shear strength (core)	≥ 130 [kPa]	PN-EN 12090:2000
	- Compressive stressat (core)	≥ 120 [kPa]	PN-EN 826:1998
The dimensional tolerance	for D≤100 mm ± 2 mm for D>100 mm ± 2%		PN-EN 14509 + D:2010P
The heat transfer coefficient	≤ 0,022 [W/m ² ·K]		PN-EN 12667:2002
Reaction to fire classification	B – s2, d0		PN-EN 13501-1 + A1:2010
Classification of the fire resistance	EI 20*/ EI 15/E30		PN-EN 13501-2 + A1:2009
The spread of fire	non fire-spreading		PN-90/B-02867
The air permeability	0,0		PN-EN 12114:2003
The acoustic insulation	26 (-3;-4)		PN-EN 20140-3:1999 ; PN-EN ISO 717-1:1999
The sound absorption	0,1		PN-EN ISO 354:2005 ; PN-EN ISO 11654:1999
Core density	40 ± 3 [kg/m ³]		PN-EN 1602:1999

8. Performance of the product referred to in paragraphs 1 and 2 are consistent with the declared in section 7.

This declaration of performance is issued under the sole responsibility of the manufacturer specified in section 4.

*only the not peripheral wall

„GÓR-STAL” Sp. z o.o.
 38-300 Gorlice, ul. Przemysłowa 11
 tel. 018 353 98 00
 REGON 852712117 NIP 738-19-45-154

DYREKTOR ZARZĄDZAJĄCY

Jacek Jajeśnica

Gorlice, 01.07.2013

Place and date of

signature and seal of the authorized person



**NARODOWY INSTYTUT ZDROWIA PUBLICZNEGO
- PAŃSTWOWY ZAKŁAD HIGIENY**

**NATIONAL INSTITUTE OF PUBLIC HEALTH
- NATIONAL INSTITUTE OF HYGIENE**

**ZAKŁAD HIGIENY KOMUNALNEJ
DEPARTMENT OF ENVIRONMENTAL HYGIENE**

24 Chocimska 00-791 Warsaw • Phone (22) 5421354; (22) 5421349 • Fax (22) 5421287 • e-mail: sek-zhk@pzh.gov.pl

ATEST HIGIENICZNY

HK/B/0250/01/2012

HYGIENIC CERTIFICATE

ORYGINAŁ

Wyrób / product: **Płyta warstwowa GORLICKA GR 1000S, GR 1000u, GR 1000CH, GR 1000D z rdzeniem ze sztywnej pianki poliuretanowej w okładzinach z blachy stalowej ocynkowanej powlekanej powłokami organicznymi.**

Zawierający / containing: stal ocynkowaną, poliuretan, żywice syntetyczne i inne składniki wg dokumentacji producenta.

Przeznaczony do / destined: stosowania na ściany zewnętrzne i wewnętrzne, pokrycia dachowe w budownictwie obiektów: usługowych, handlowych, przemysłowych, branży spożywczej, chłodniczych, mieszkaniowych i użyteczności publicznej, w tym obiektach służby zdrowia.

Wymieniony wyżej produkt odpowiada wymaganiom higienicznym przy spełnieniu następujących warunków / is acceptable according to hygienic criteria with the following conditions:

W przypadku stosowania w obiektach służby zdrowia wyrób musi spełniać wymagania rozporządzenia Ministra Zdrowia z dnia 02 lutego 2011r (Dz. U. z dn. 11 lutego 2011, nr 31, poz. 158) w sprawie wymagań, jakim powinny odpowiadać pod względem fachowym i sanitarnym pomieszczenia i urządzenia zakładu opieki zdrowotnej. Wyrób nie może być źródłem emisji lotnych związków organicznych do środowiska i wewnątrz pomieszczeń. Atest nie dotyczy bezpośredniego kontaktu wyrobu z żywnością. Atest nie dotyczy cech użytkowych wyrobu.

Wytwórca / producer:

„GÓR-STAL” Spółka z o. o.
38-300 Gorlice
ul. Przemysłowa 11

Niniejszy dokument wydano na wniosek / this certificate issued for:

„GÓR-STAL” Spółka z o. o.
38-300 Gorlice
ul. Przemysłowa 11

Atest może być zmieniony lub unieważniony po przedstawieniu stosownych dowodów przez którąkolwiek stronę. Niniejszy atest traci ważność po 2017-03-30 lub w przypadku zmian w recepturze albo w technologii wytwarzania wyrobu.

The certificate may be corrected or cancelled after appropriate motivation.
The certificate loses its validity after 2017-03-30
or in the case of changes in composition or in technology of production.

Data wydania atestu higienicznego: 30 marca 2012

The date of issue of the certificate: 30th March 2012

Reprodukowanie, kopiowanie, fotografowanie, skanowanie, digitalizacja Atestu Higienicznego w celach marketingowych bez zgody NIZP-PZH jest zabronione.

Kierownik
Zakładu Higieny Komunalnej

Bożena Krogulska
dr Bożena Krogulska

mgr T. Pukalski

www.pzh.gov.pl

Autor i firma Gór-Stal zastrzega sobie prawo do zmian lub poprawek w treści katalogu, bez uprzedzenia.
Niniejsze opracowanie nie stanowi oferty w rozumieniu prawa.
Opracował: mgr. inż. Szymon Jamro, Wydanie II, Gorlice 03.2008r.
Poprawki: Maciej Kluba, 07.2014r.



GÓR-STAL sp. z o.o.

ul. Przemysłowa 11
38-300 Gorlice

tel/fax +0048 18 353 98 00

e-mail: info@gor-stal.pl

www.gor-stal.pl