



BOERNER INSULATION

BOERNER

INSULATION

PRODUCT CATALOG



TABLE OF CONTENTS

ABOUT BOERNER INSULATION	4
CHARACTERISTICS OF BOERNER STONE WOOL	5
ETICS FACADES	
SYSTEM DESCRIPTION	9
TECHNOFACADE 34	11
TECHNOFACADE 35	13
TECHNOFACADE 39	15
VENTILATED FACADES	
TECHNOVENT	19
TECHNOVENT EXTRA	21
FLAT ROOFS	
SYSTEM DESCRIPTION	25
TECHNOROOF BASE 30	26
TECHNOROOF BASE 40	28
TECHNOROOF BASE 40 TAPERED	30
TECHNOROOF SOLO 50	32
TECHNOROOF TOP 50	34
TECHNOROOF TOP 50 TAPERED	36
TECHNOROOF TOP 60	38
TECHNOROOF TOP 70	40
TECHNOROOF TOP 70 TAPERED	42
TECHNOROOF TOP 80	44
GENERAL CONSTRUCTION	
TECHNOLITE	48
TECHNOLITE EXTRA	50
GARAGES, CELLARS AND TECHNICAL ROOMS	
TECHNOCEILING	54
TECHNOCEILING FC.....	56
TECHNOCEILING FW.....	58
ADDITIONAL INFORMATION	
GENERAL TERMS AND CONDITIONS OF SUPPLY	62
DESCRIPTION OF PICTOGRAMS	66
CONTACT	67



WHO WE ARE

BOERNER INSULATION WAS ESTABLISHED IN 2019.

In March 2021, the company opened a mineral wool factory in Wykroty near Boleslawiec in Lower Silesia, which is one of the most modern plants of its kind in Poland. Its production capacity is 90,000 tons of mineral wool per year.

It supplies general construction products for attic or partition insulation, wool for ventilated facades insulated with the ETICS technology, or insulation for flat roofs.

The factory in Wykroty is fully self-sufficient and waste-free. The generated waste is processed and used in further production, e.g. dust from panel formatting or from the fibre molding process is used in the production of briquettes. The capacity of the briquetting facility is 180 tons per day. To reduce the amounts of emitted pollutants to the minimum, the factory uses gas afterburning systems and numerous filters.



CHARACTERISTICS OF BOERNER STONE WOOL



EFFECTIVE THERMAL INSULATION

BOERNER stone wool is an efficient thermal insulation material. High resistance to heat transfer is achieved by using the finest interwoven mineral wool fibers, which retain a large amount of air inside the material.



FIRE SAFETY

BOERNER stone wool is non-flammable because the main raw materials for its rock wool products are basalt and gabbro rocks. The melting temperature of the fibres exceeds 1000° C, which makes the rock wool products possible to use in a wide range of operating temperatures.



DIMENSIONAL STABILITY

High resistance to mechanical stress of the BOERNER materials is provided by fibre properties and structure of the stone wool. These parameters are determined individually for each type of BOERNER material depending on the purpose of the insulation.



SOUND ABSORPTION

The fibrous structure of BOERNER stone wool products provides excellent acoustic and sound-absorbing properties for the materials. BOERNER products have high sound absorption coefficients over a wide frequency range, which reduces air and impact noise in various sound-absorbing structures such as partitions or floors.



WATER RESISTANCE

All BOERNER thermal insulation materials based on stone wool are impregnated with agents that give the insulation water repellent properties.



VAPOR PERMEABILITY

BOERNER stone wool materials provide the highest class of vapor permeability. They do not retain moisture that is generated by human activity. Thus, the thermal insulation always remains dry.



BIOSTABILITY

BOERNER products fully meet the criteria of biological stability, which has been confirmed by numerous tests and trials. BOERNER materials based on rock wool are impenetrable to macro and microorganisms: the material does not provide conditions for viable bacteria, mold or fungi activity, nor is it attractive as an environment for insects and rodents.



CHEMICAL RESISTANCE

BOERNER products are manufactured from basalt rocks. This group of natural minerals is characterised by high chemical resistance to various substances: oils, solvents, paints, acidic and alkaline media. BOERNER materials can be safely used together with all kinds of construction materials and anti-corrosion treatments in many areas of the chemical industry.



ENERGY EFFICIENCY

The company develops, manufactures and promotes materials and systems that minimize heat loss and improve the thermal protection efficiency of buildings, facilities and industrial sites. Energy-saving technologies and materials significantly reduce heat loss, creating shields for buildings and facilities.



FROM NATURAL RAW MATERIALS

Basic raw material for stone wool thermal insulation panels is gabbro and basalt rocks, which are igneous formations resulting from volcanic eruptions. This unique raw material is natural, ecologically clean and safe. In order to obtain high-quality fibre, a careful selection of the mixture composition is carried out.



EASY INSTALLATION

Stone wool panels can be easily cut with available tools, such as a knife or a fine-toothed saw. It is also easy to make the desired shape and size in order to fit the panel in any structure, as well as to perform quality control.



DIMENSIONAL STABILITY

Stone wool panels are produced with guaranteed stable geometric dimensions, thanks to the automation and mechanization of our technological process. Precise and stable geometric dimensions allow to install the panels tightly adhered to each other or to the building structure, depending on the installation conditions.



ETICS Facades

ETICS FACADES



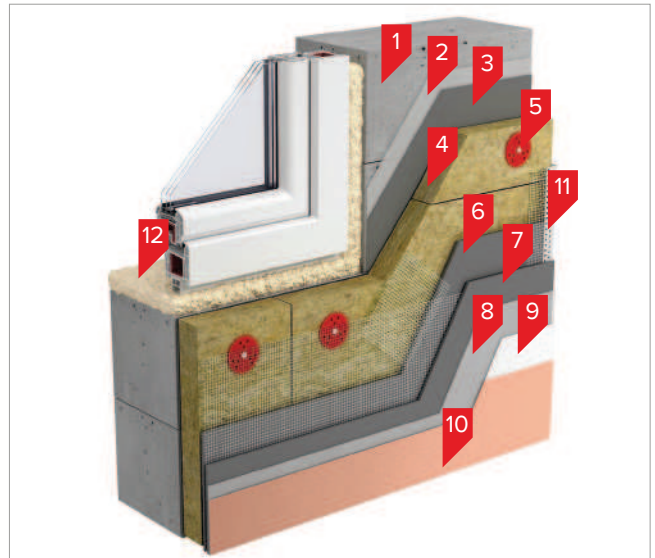
The standards the construction industry is subject to are getting higher and higher. Ecology and climate responsibility are the factors that are increasingly influencing customer decisions both in Poland and throughout Europe. In addition, economy is a very important issue - good insulation of buildings simply pays off. Which type of thermal insulation will be most effective for both private investors and developers? Which will comply with the European Union standards?

One of the ways to insulate a building is doing it using a method known as ETICS. This technology will work well for almost any type of building and, importantly, provide tangible economic and environmental benefits.

ETICS technology is a way of insulating exterior walls of buildings with composite thermal insulation systems covered with thin-layer, structural plaster coatings, applying a seamless method. In the past, insulation methods similar to ETICS were known as "light-wet method" or "jointless thermal insulation system". Today, in the ETAG 004 Guidelines for European Technical Approvals for External Wall Insulation Systems, the term ETICS is used for this method. This technology can be used in both new and existing buildings. The ETICS method is used to insulate vertical facades, but it can also be used on ceiling and sloping surfaces if they are not exposed to rainwater or snow.

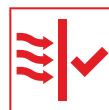
When deciding on ETICS technology, it is worth choosing professional system solutions.

A thin-layer facade system with rock wool thermal insulation layer which is attached using a composite method and reinforced with a reinforcing layer of mesh embedded in glue. The system is finished with a decorative layer of vapor-permeable plaster dyed in the mass or painted with facade paint.



System composition:

1. Exterior wall
2. Deep penetrating primer
3. Wool glue
4. TECHNOFACADE 34, TECHNOFACADE 35
5. Fixing pin with metal pin
6. Glue layer for embedding the mesh
7. Mesh for facades
8. All-purpose primer for plaster
9. Decorative mineral plaster
10. Silicone facade paint
11. Plastic corner profile
12. BOERNER construction foam



Application area:

The system is used both in new construction and in the thermal modernization of residential and public buildings.



TECHNOFACADE 34

STONE WOOL

PRODUCT DESCRIPTION

TECHNOFACADE 34 are non-combustible, hydrophobic thermal and sound insulation boards with a disturbed fiber arrangement, made of stone wool. The biggest advantage of this product is the thermal conductivity coefficient of 0,034 [W/mK]

APPLICATION

As a layer for thermal, acoustic and fire insulation in industrial and civil construction. Intended for use inside and outside buildings in jointless thermal insulation systems (ETICS).



THICKNESS RANGE 50 - 300 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,034	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 20	EN 826
Tensile strength perpendicular to the faces	TR	kPa	≥ 10	EN 1607
Point load at 5 mm deformation	PL(5)	N	≥ 150	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RTF	-	A1	EN 13501-1, EN 15715

NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D																
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	
R_D [m ² K/W]	-	-	-	-	1,40	1,70	2,00	2,30	2,55	2,85	3,15	3,45	3,75	4,05	4,35	
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	
R_D [m ² K/W]	4,65	4,95	5,20	5,50	5,80	6,10	6,40	6,70	7,00	7,30	7,55	7,85	8,15	8,45	8,75	

**LOGISTICS INFORMATION**

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN13162-T5-DS(70,90)-CS(10)20-TR10-PL(5)150-WS-WL(P)-MU1**

Declaration of performance no: **TNI/ETICS/TF34/2022_11**



TECHNOFACADE 35

STONE WOOL

PRODUCT DESCRIPTION

TECHNOFACADE 35 are non-combustible, hydrophobic thermal and sound insulation boards with a disturbed fiber arrangement, made of stone wool.

APPLICATION

As a layer for thermal, acoustic and fire insulation in industrial and civil construction. Intended for use inside and outside buildings in jointless thermal insulation systems (ETICS).



THICKNESS RANGE 50 - 300 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,035	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 30	EN 826
Tensile strength perpendicular to the faces	TR	kPa	≥ 10	EN 1607
Point load at 5 mm deformation	PL(5)	N	≥ 200	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RTF	-	A1	EN 13501-1, EN 15715 NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R _D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R _D [m ² K/W]	-	-	-	-	1,35	1,65	1,95	2,20	2,50	2,80	3,05	3,35	3,65	3,95	4,20
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R _D [m ² K/W]	4,50	4,80	5,05	5,35	5,65	5,95	6,20	6,50	6,80	7,05	7,35	7,65	7,95	8,20	8,50



LOGISTICS INFORMATION

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface.

Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN 13162-T5-DS(70,90)-CS(10)30-TR10-PL(5)200-WS-WL(P)-MU1**

Declaration of performance no: **TNI/ETICS/TF35/2022_11**



TECHNOFACADE 39

STONE WOOL

PRODUCT DESCRIPTION

TECHNOFACADE 39 are non-combustible, hydrophobic thermal and sound insulation boards with a disturbed fiber arrangement, made of stone wool.

APPLICATION

As a layer for thermal, acoustic and fire insulation in industrial and civil construction. Intended for use inside and outside buildings in jointless thermal insulation systems (ETICS).



THICKNESS RANGE 20 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,039	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 30	EN 826
Tensile strength perpendicular to the faces	TR	kPa	≥ 15	EN 1607
Point load at 5 mm deformation	PL(5)	N	≥ 300	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RIF	-	A1	EN 13501-1, EN 15715 NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D																
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	
R_D [m ² K/W]	-	0,5	0,75	1,00	1,25	1,50	1,75	2,05	2,30	2,55	2,80	3,05	3,30	3,55	3,80	
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	
R_D [m ² K/W]	4,10	4,35	4,60	4,85	5,10	-	-	-	-	-	-	-	-	-	-	

**LOGISTICS INFORMATION**

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN 13162-T5-DS(70,90)-CS(10)30-TR15-PL(5)300-WS-WL(P)-MU1**

Declaration of performance no: **TNI/ETICS/TF39/2023_03**



Ventilated
facades



TECHNOVENT

STONE WOOL

PRODUCT DESCRIPTION

TECHNOVENT are non-combustible, hydrophobic thermal and acoustic insulation boards with a disturbed fiber arrangement, made of stone wool. Increased physical and mechanical parameters ensure reliable use of the material in vertical structures.

APPLICATION

As a layer of thermal and acoustic insulation in ventilated systems with various types of external cladding and in frame walls.



THICKNESS RANGE 50 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,034	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	$\geq 0,5$	EN 826
Tensile strength perpendicular to the faces	TR	kPa	NPD	EN 1607
Point load at 5 mm deformation	PL(5)	N	NPD	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	5	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RIF	-	A1	EN 13501-1, EN 15715 NPD - No Performance Declared

DECLARED THERMAL REISTANCE

	Value of declared thermal resistance R_D														
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	-	-	-	1,40	1,70	2,00	2,30	2,55	2,85	3,15	3,45	3,75	4,05	4,35
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,65	4,95	5,20	5,50	5,80	-	-	-	-	-	-	-	-	-	-



LOGISTICS INFORMATION

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN 13162-T5-DS(70,90)-CS(10)0,5-AFr5-WS-WL(P)-MU1**

Declaration of performance no: **TNI/VF/TV/2021_05**



TECHNOVENT EXTRA

STONE WOOL

PRODUCT DESCRIPTION

TECHNOVENT EXTRA are non-combustible, hydrophobic thermal and acoustic insulation boards with a disturbed fiber arrangement, made of stone wool. Increased physical and mechanical parameters ensure reliable use of the material in vertical structures.

APPLICATION

As a layer of thermal and acoustic insulation in ventilated systems with various types of external cladding and in frame walls.



THICKNESS RANGE 50 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,034	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	$\geq 0,5$	EN 826
Tensile strength perpendicular to the faces	TR	kPa	NPD	EN 1607
Point load at 5 mm deformation	PL(5)	N	NPD	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	5	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RfF	-	A1	EN 13501-1, EN 15715 NPD - No Performance Declared

DECLARED THERMAL REISTANCE

	Value of declared thermal resistance R_D														
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	-	-	-	1,40	1,70	2,00	2,30	2,55	2,85	3,15	3,45	3,75	4,05	4,35
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,65	4,95	5,20	5,50	5,80	-	-	-	-	-	-	-	-	-	-



LOGISTICS INFORMATION

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

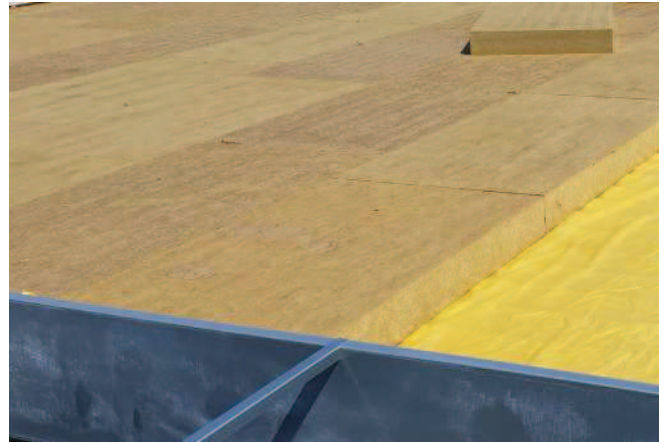
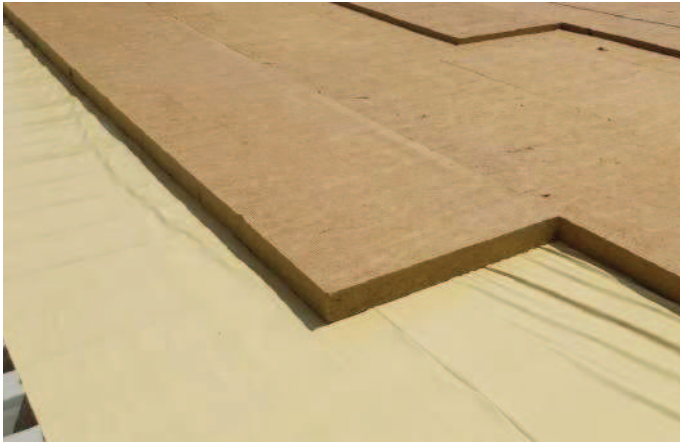
Designation code: **MW-EN 13162-T5-DS(70,90)-CS(10)0,5-AFr5-WS-WL(P)-MU1**

Declaration of performance no: **TNI/VF/TVE/2021_05**



Flat
roofs

FLAT ROOFS



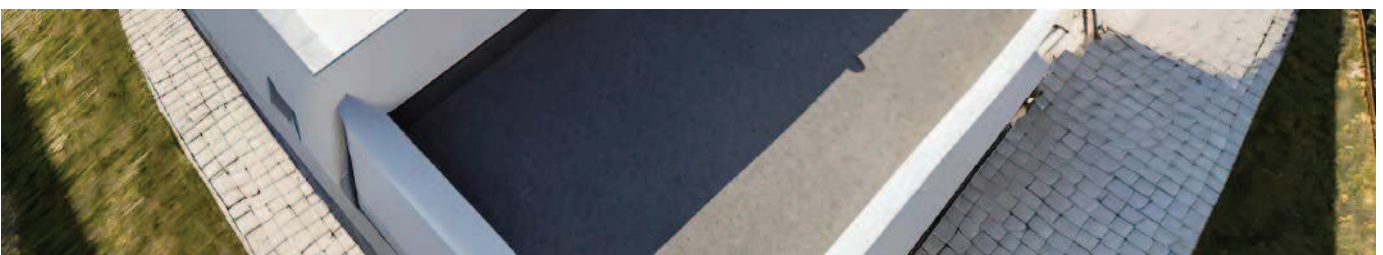
A flat roof is a roof with a slope of 2 to max. 12 degrees, which serves two functions at the same time - it is both a roof and a ceiling above the top floor of a building. Made of three layers: structural, insulating and roofing layers, which together create a waterproofing, thermal, acoustic, and vapor-regulating barrier, it has not enjoyed a good reputation for years. Today, such a solution often appears in modern architectural designs.

What to keep in mind?

Heat can be lost not only through the roof, but also through the walls and foundations. Therefore, insulating the rest of the building structure is as important as insulating the flat roof. However, it's important to remember that due to the convection process, hot air rises upwards, which makes heat loss through the roof the greatest. This is why, roof insulation should be a priority.

We need to point out that when the heated air from the internal rooms comes into contact with the cold surface of the roofing, a process of condensation occurs. In this situation, water will gradually destroy the roof structure and return to the utility rooms.

Insulation also plays a very important role in creating a favourable microclimate in the rooms located directly under the roof.





TECHNOROOF BASE 30

STONE WOOL

PRODUCT DESCRIPTION

TECHNOROOF BASE 30 are non-combustible, hydrophobic thermal and sound insulation boards with a disturbed fiber arrangement, made of stone wool.

APPLICATION

Thermal, acoustic and non-combustible insulation in industrial and civil construction. Intended for use in building structures as a base layer for a two-layer roof thermal insulation system in combination with TECHNOROOF TOP slabs.



THICKNESS RANGE 50 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,036	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 30	EN 826
Tensile strength perpendicular to the faces	TR	kPa	$\geq 7,5$	EN 1607
Point load at 5 mm deformation	PL(5)	N	≥ 250	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16536
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RTF	-	A1	EN 13501-1, EN 15715

NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D																
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	
R_D [m ² K/W]	-	-	-	-	1,35	1,65	1,90	2,20	2,50	2,75	3,05	3,30	3,60	3,85	4,15	
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	
R_D [m ² K/W]	4,40	4,70	5,00	5,25	5,55	-	-	-	-	-	-	-	-	-	-	

**LOGISTICS INFORMATION**

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN 13162-T5-DS(70,90)-CS(10)30-TR7,5-PL(5)250-WS-WL(P)-MU1**

Declaration of performance no: **TNI/FR/TRB30/2021_05**



TECHNOROOF BASE 40

STONE WOOL

PRODUCT DESCRIPTION

TECHNOROOF BASE 40 are non-combustible, hydrophobic thermal and sound insulation boards with a disturbed fiber arrangement, made of stone wool.

APPLICATION

Thermal, acoustic and non-combustible insulation in industrial and civil construction. Intended for use in building structures as a base layer for a two-layer roof thermal insulation system in combination with TECHNOROOF TOP slabs.



THICKNESS RANGE 50 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,037	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 40	EN 826
Tensile strength perpendicular to the faces	TR	kPa	≥ 10	EN 1607
Point load at 5 mm deformation	PL(5)	N	≥ 250	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RtF	-	A1	EN 13501-1, EN 15715 NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Thickness [mm]	Value of declared thermal resistance R_D														
	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	-	-	-	1,35	1,60	1,85	2,15	2,40	2,70	2,95	3,20	3,50	3,75	4,05
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,30	4,55	4,85	5,10	5,40	-	-	-	-	-	-	-	-	-	-

**LOGISTICS INFORMATION**

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

**ADDITIONAL INDICATIONS ON THE LABEL**

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region

Certificate number: **1454-CPR-0292**

Designation code: **MW-EN 13162-T5-DS(70,90)-CS(10)40-TR10-PL(5)250-WS-WL(P)-MU1**

Declaration of performance no: **TNI/FR/TRB 40/2021_05**



TECHNOROOF BASE 40 TAPERED

STONE WOOL

PRODUCT DESCRIPTION

TECHNOROOF BASE 40 TAPERED are non-combustible, hydrophobic stone wool boards with a disturbed fiber arrangement, for shaping slopes and counter-slopes on flat roofs.

APPLICATION

Shaping slopes that drain water from flat roofs to roof drains. TECHNOROOF TOP 50 TAPERED boards are placed on the TECHNOROOF BASE thermal insulation layer. Boards with an inclination of 2.5% and 3.0% are available for shaping slopes and with an inclination of 5% for making counter-slopes.



THICKNESS RANGE 10 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,037	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 40	EN 826
Tensile strength perpendicular to the faces	TR	kPa	≥ 10	EN 1607
Point load at 5 mm deformation	PL(5)	N	≥ 250	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RIF	-	A1	EN 13501-1, EN 15715

NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	0,25	0,50	0,80	1,05	1,35	1,60	1,85	2,15	2,40	2,70	2,95	3,20	3,50	3,75	4,05
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,30	4,55	4,85	5,10	5,40	-	-	-	-	-	-	-	-	-	-



LOGISTICS INFORMATION

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN 13162-T5-DS(70,90)-CS(10)40-TR10-PL(5)250-WS-WL(P)-MU1**

Declaration of performance no: **TNI/FR/TRB40T/2021_05**



TECHNOROOF SOLO 50

STONE WOOL

PRODUCT DESCRIPTION

TECHNOROOF SOLO 50 are non-combustible, hydrophobic thermal and sound insulation boards with a disturbed fiber arrangement, made of stone wool.

APPLICATION

Thermal, acoustic and non-combustible insulation in industrial and civil construction. Intended for use in construction objects as single and double-layer thermal insulation for flat roofs.



THICKNESS RANGE 30 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,039	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 50	EN 826
Tensile strength perpendicular to the faces	TR	kPa	≥ 10	EN 1607
Point load at 5 mm deformation	PL(5)	N	≥ 450	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RIF	-	A1	EN 13501-1, EN 15715 NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	-	0,75	1,00	1,25	1,50	1,75	2,05	2,30	2,55	2,80	3,05	3,30	3,55	3,80
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,10	4,35	4,60	4,85	5,10	-	-	-	-	-	-	-	-	-	-



LOGISTICS INFORMATION

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN 13162-T5-DS(70,90)-CS(10)50-TR10-PL(5)450-WS-WL(P)-MU1**

Declaration of performance no: **TNI/FR/TRS50/2021_05**



TECHNOROOF TOP 50

STONE WOOL

PRODUCT DESCRIPTION

TECHNOROOF TOP 50 are non-combustible, hydrophobic thermo and sound insulation boards with a disturbed fiber arrangement, made of stone wool.

APPLICATION

Thermal, acoustic and non-combustible insulation in industrial and civil construction. Intended for use in construction facilities as a top layer of a two-layer roof thermal insulation system in combination with TECHNOROOF BASE slabs.



THICKNESS RANGE 20 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,039	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 50	EN 826
Tensile strength perpendicular to the faces	TR	kPa	≥ 15	EN 1607
Point load at 5 mm deformation <50mm	PL(5)	N	≥ 550	EN 12430
Point load at 5 mm deformation ≥ 50 mm	PL(5)	N	≥ 850	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RTF	-	A1	EN 13501-1, EN 15715

NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	0,50	0,75	1,00	1,25	1,50	1,75	2,05	2,30	2,55	2,80	3,05	3,30	3,55	3,80
Thickness [mm]	180	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,10	4,35	4,60	4,85	5,10	-	-	-	-	-	-	-	-	-	-



LOGISTICS INFORMATION

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code for thickness products <50mm

MW-EN 13162-T5-DS(70,90)-CS(10)50-TR15-PL(5)550-WS-WL(P)-MU1

Designation code for thickness products ≥50mm

MW-EN 13162-T5-DS(70,90)-CS(10)50-TR15-PL(5)650-WS-WL(P)-MU1

Declaration of performance no: **TNI/FR/TRT50/2023_03**



TECHNOROOF TOP 50 TAPERED

STONE WOOL

PRODUCT DESCRIPTION

TECHNOROOF TOP 50 TAPERED are non-combustible, hydrophobic stone wool boards with a disturbed fiber arrangement, for shaping slopes and counter-slopes on flat roofs.

APPLICATION

Shaping slopes that drain water from flat roofs to roof drains. TECHNOROOF TOP 50 TAPERED boards are placed on the TECHNOROOF TOP thermal insulation layer. Boards with an inclination of 2.5% and 3.0% are available for shaping slopes and with an inclination of 5% for making counter-slopes.



THICKNESS RANGE 10 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,039	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 50	EN 826
Tensile strength perpendicular to the faces	TR	kPa	≥ 15	EN 1607
Point load at 5 mm deformation	PL(5)	N	≥ 550	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9063-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RtF	-	A1	EN 13501-1, EN 15715

NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	0,25	0,50	0,75	1,00	1,25	1,50	1,75	2,05	2,30	2,55	2,80	3,05	3,30	3,55	3,80
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,10	4,35	4,60	4,85	5,10	-	-	-	-	-	-	-	-	-	-

**LOGISTICS INFORMATION**

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN 13162-T5-DS(70,90)-CS(10)50-TR15-PL(5)550-WS-WL(P)-MU1**

Declaration of performance no: **TNI/FR/TRT50T/2021_05**



TECHNOROOF TOP 60

STONE WOOL

PRODUCT DESCRIPTION

TECHNOROOF TOP 60 are non-combustible, hydrophobic thermo and sound insulation boards with a disturbed fiber arrangement, made of stone wool.

APPLICATION

Thermal, acoustic and non-combustible insulation in industrial and civil construction. Intended for use in construction facilities as a top layer of a two-layer roof thermal insulation system in combination with TECHNOROOF BASE slabs.



THICKNESS RANGE 20 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,039	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 60	EN 826
Tensile strength perpendicular to the faces	TR	kPa	≥ 15	EN 1607
Point load at 5 mm deformation <50mm	PL(5)	N	≥ 500	EN 12430
Point load at 5 mm deformation ≥ 50 mm	PL(5)	N	≥ 700	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RTF	-	A1	EN 13501-1, EN 15715

NPD - No Performance Declared

DECLARED THERMAL RESISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	0,50	0,75	1,00	1,25	1,50	1,75	2,05	2,30	2,55	2,80	3,05	3,30	3,55	3,80
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,10	4,35	4,60	4,85	5,10	-	-	-	-	-	-	-	-	-	-

**LOGISTICS INFORMATION**

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface.

Maximum stacking height of pallets up to three meters.

**ADDITIONAL INDICATIONS ON THE LABEL**

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region

Certificate number: **1454-CPR-0292**

Designation code for thickness products <50mm

MW-EN 13162-T5-DS(70,90)-CS(10)60-TR15-PL(5)500-WS-WL(P)-MU1

Designation code for thickness products ≥50mm

MW-EN 13162-T5-DS(70,90)-CS(10)60-TR15-PL(5)700-WS-WL(P)-MU1

Declaration of performance no: **TNI/FR/TRT60/2023_03**



TECHNOROOF TOP 70

STONE WOOL

PRODUCT DESCRIPTION

TECHNOROOF TOP 70 are non-combustible, hydrophobic thermo and sound insulation boards with a disturbed fiber arrangement, made of stone wool.

APPLICATION

Thermal, acoustic and non-combustible insulation in industrial and civil construction. Intended for use in construction facilities as a top layer of a two-layer roof thermal insulation system in combination with TECHNOROOF BASE slabs.



THICKNESS RANGE 20 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0.039	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 70	EN 826
Tensile strength perpendicular to the faces	TR	kPa	≥ 15	EN 1607
Point load at 5 mm deformation <50mm	PL(5)	N	≥ 700	EN 12430
Point load at 5 mm deformation ≥ 50 mm	PL(5)	N	≥ 800	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RIF	-	A1	EN 13501-1, EN 15715 NPD - No Performance Declared

DECLARED THERMAL RESISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	0,50	0,75	1,00	1,25	1,50	1,75	2,05	2,30	2,55	2,80	3,05	3,30	3,55	3,80
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,10	4,35	4,60	4,85	5,10	-	-	-	-	-	-	-	-	-	-

**LOGISTICS INFORMATION**

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region

Certificate number: **1454-CPR-0292**

Designation code for thickness products <50mm

MW-EN 13162-T5-DS(70,90)-CS(10)70-TR15-PL(5)700-WS-WL(P)-MU1

Designation code for thickness products ≥50mm

MW-EN 13162-T5-DS(70,90)-CS(10)70-TR15-PL(5)800-WS-WL(P)-MU1

Declaration of performance no: **TNI/FR/TRT70/2023_03**





TECHNOROOF TOP 70 TAPERED

STONE WOOL

PRODUCT DESCRIPTION

TECHNOROOF TOP 70 TAPERED are non-combustible, hydrophobic stone wool boards with a disturbed fiber arrangement, for shaping slopes and counter-slopes on flat roofs.

APPLICATION

Shaping slopes that drain water from flat roofs to roof drains. TECHNOROOF TOP 70 TAPERED boards are placed on the TECHNOROOF TOP thermal insulation layer. Boards with an inclination of 2.5% and 3.0% are available for shaping slopes and with an inclination of 5% for making counter-slopes.



THICKNESS RANGE 10 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,039	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 70	EN 826
Tensile strength perpendicular to the faces	TR	kPa	≥ 15	EN 1607
Point load at 5 mm deformation	PL(5)	N	≥ 700	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RIF	-	A1	EN 13501-1, EN 15715 NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	0,25	0,50	0,75	1,00	1,25	1,50	1,75	2,05	2,30	2,55	2,80	3,05	3,30	3,55	3,90
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,10	4,35	4,60	4,85	5,10	-	-	-	-	-	-	-	-	-	-

**LOGISTICS INFORMATION**

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN 13162-T5-DS(70,90)-CS(10)70-TR15-PL(5)700-WS-WL(P)-MU1**

Declaration of performance no: **TNI/FR/TRT70T/2023_03**



TECHNOROOF TOP 80

STONE WOOL

PRODUCT DESCRIPTION

TECHNOROOF TOP 80 are non-combustible, hydrophobic thermo and sound insulation boards with a disturbed fiber arrangement, made of stone wool.

APPLICATION

Thermal, acoustic and non-combustible insulation in industrial and civil construction. Intended for use in construction facilities as a top layer of a two-layer roof thermal insulation system in combination with TECHNOROOF BASE slabs.



THICKNESS RANGE 20 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,039	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1804
Compressive stress at 10% deformation	CS(10)	kPa	≥ 80	EN 826
Tensile strength perpendicular to the faces	TR	kPa	≥ 15	EN 1607
Point load at 5 mm deformation	PL(5)	N	≥ 600	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RtF	-	A1	EN 13501-1, EN 15715 NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	0,50	0,75	1,00	1,25	1,50	1,75	2,05	2,30	2,55	2,80	3,05	3,30	3,55	3,90
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,10	4,35	4,60	4,85	5,10	-	-	-	-	-	-	-	-	-	-



LOGISTICS INFORMATION

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN 13162-T5-DS(70,90)-CS(10)80-TR15-PL(5)600-WS-WL(P)-MU1**

Declaration of performance no: **TNI/FR/TRT80/2022_10**



General
construction



TECHNOLITE

STONE WOOL

PRODUCT DESCRIPTION

TECHNOLITE are non-combustible, hydrophobic thermal and sound insulation boards, made of stone wool.

APPLICATION

As a layer for thermal, acoustic and fire insulation in general building, where the insulation does not bear the external load (framed partitions and floors, attic floors, pitched roofs with the rafter system, etc.). Also used as the first (internal) insulation layer in two-layer thermal insulation systems of ventilated facades.



THICKNESS RANGE 50 - 300 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,035	EN 12667, EN 12939
Thickness tolerance class	T	-	T2	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	≥ 0,5	EN 826
Tensile strength perpendicular to the faces	TR	kPa	NPD	EN 1607
Point load at 5 mm deformation	PL(5)	N	NPD	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	5	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RtF	-	A1	EN 13501-1, EN 15715

NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	-	-	-	1,35	1,65	1,95	2,20	2,50	2,80	3,05	3,35	3,65	3,95	4,20
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,50	4,80	5,05	5,35	5,65	5,95	6,20	6,50	6,80	7,05	7,35	7,65	7,95	8,20	8,50

**LOGISTICS INFORMATION**

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN 13162-T2-DS(70,90)-CS(10)0,5-AFr5-WS-WL(P)-MU1**

Declaration of performance no: **TNI/GB/TL/2023_03**



TECHNOLITE EXTRA

STONE WOOL

PRODUCT DESCRIPTION

TECHNOLITE EXTRA are non-combustible, hydrophobic thermal and sound insulation boards, made of stone wool.

APPLICATION

As a layer for thermal, acoustic and fire insulation in general building, where the insulation does not bear the external load (framed partitions and floors, attic floors, pitched roofs with the rafter system, etc.). Also used as the first (internal) insulation layer in two-layer thermal insulation systems of ventilated facades.



THICKNESS RANGE 50 - 300 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,035	EN 12667, EN 12939
Thickness tolerance class	T	-	T4	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1604
Compressive stress at 10% deformation	CS(10)	kPa	$\geq 0,5$	EN 826
Tensile strength perpendicular to the faces	TR	kPa	NPD	EN 1607
Point load at 5 mm deformation	PL(5)	N	NPD	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	5	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16536
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RIF	-	A1	EN 13501-1, EN 15715

NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	-	-	-	1,35	1,65	1,95	2,20	2,50	2,80	3,05	3,35	3,65	3,95	4,20
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,50	4,80	5,05	5,35	5,65	5,95	6,20	6,50	6,80	7,05	7,35	7,65	7,95	8,20	8,50

**LOGISTICS INFORMATION**

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN 13162-T4-DS(70,90)-CS(10)0,5-AFr5-WS-WL(P)-MU1**

Declaration of performance no: **TNI/GB/TLE/2023_03**



Garages, cellars
**and technical
rooms**



TECHNOCEILING

STONE WOOL

PRODUCT DESCRIPTION

TECHNOCEILING are non-flammable, hydrophobized thermal and sound insulation boards with a disturbed fiber arrangement. Made of rock mineral wool.

APPLICATION

Thermal, acoustic and fire insulation in residential, industrial and building construction. Designed for insulating ceilings and walls in garages, basements or technical rooms. Mechanical assembly method, using steel connectors with plates. The panels are installed in accordance with the designer's guidelines. Most often using 2-3 connectors per board.



THICKNESS RANGE 50 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,034	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1804
Compressive stress at 10% deformation	CS(10)	kPa	$\geq 0,5$	EN 826
Tensile strength perpendicular to the faces	TR	kPa	NPD	EN 1807
Point load at 5 mm deformation	PL(5)	N	NPD	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RtF	-	A1	EN 13501-1, EN 15715 NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	-	-	-	1,40	1,70	2,00	2,30	2,55	2,85	3,15	3,45	3,75	4,05	4,35
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,65	4,95	5,20	5,50	5,80	-	-	-	-	-	-	-	-	-	-

**LOGISTICS INFORMATION**

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface. Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN13162-T5-DS(70,90)-CS(10)0,5-WS-WL(P)-MU1**

Declaration of performance no: **TNI/C/TC/2021_05**



TECHNOCEILING FC

STONE WOOL

PRODUCT DESCRIPTION

TECHNOCEILING FC are non-flammable, hydrophobized thermal and sound insulation boards with a disturbed fiber arrangement. Made of rock mineral wool, covered on one side with colored glass veil.

APPLICATION

Thermal, acoustic and fire insulation in residential, industrial and building construction. Designed for insulating ceilings and walls in garages, basements or technical rooms. Mechanical assembly method, using steel connectors with plates. The panels are installed in accordance with the designer's guidelines. Most often using 2-3 connectors per board.



THICKNESS RANGE 50 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,034	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1804
Compressive stress at 10% deformation	CS(10)	kPa	$\geq 0,5$	EN 826
Tensile strength perpendicular to the faces	TR	kPa	NPD	EN 1807
Point load at 5 mm deformation	PL(5)	N	NPD	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RtF	-	A1	EN 13501-1, EN 15715 NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	-	-	-	1,40	1,70	2,00	2,30	2,55	2,85	3,15	3,45	3,75	4,05	4,35
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,65	4,95	5,20	5,50	5,80	-	-	-	-	-	-	-	-	-	-

**LOGISTICS INFORMATION**

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface.

Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN13162-T5-DS(70,90)-CS(10)0,5-WS-WL(P)-MU1**

Declaration of performance no: **TNI/C/TCFC/2022_08**



TECHNOCEILING FW

STONE WOOL

PRODUCT DESCRIPTION

TECHNOCEILING FW are non-flammable, hydrophobized thermal and sound insulation boards with a disturbed fiber arrangement. Made of rock mineral wool, covered on one side with white glass veil.

APPLICATION

Thermal, acoustic and fire insulation in residential, industrial and building construction. Designed for insulating ceilings and walls in garages, basements or technical rooms. Mechanical assembly method, using steel connectors with plates. The panels are installed in accordance with the designer's guidelines. Most often using 2-3 connectors per board.



THICKNESS RANGE 50 - 200 [mm]

DECLARED PARAMETERS

Parameter	Symbol	Unit	Value	Method
Declared thermal conductivity	λ_D	W/mK	0,034	EN 12667, EN 12939
Thickness tolerance class	T	-	T5	EN 823
Dimensional stability under certain temperature and humidity conditions	DS(70,90)	%	≤ 1	EN 1804
Compressive stress at 10% deformation	CS(10)	kPa	$\geq 0,5$	EN 826
Tensile strength perpendicular to the faces	TR	kPa	NPD	EN 1807
Point load at 5 mm deformation	PL(5)	N	NPD	EN 12430
Air flow resistivity	AFr	kPa·s/m ²	NPD	EN 9053-1
Short-term water absorption	WS	kg/m ²	≤ 1	EN 29767
Long-term water absorption	WL(P)	kg/m ²	≤ 3	EN 16535
Water vapor diffusion resistance coefficient	MU	-	MU1	EN 13162+A1
Reaction to fire	RtF	-	A1	EN 13501-1, EN 15715 NPD - No Performance Declared

DECLARED THERMAL REISTANCE

Value of declared thermal resistance R_D															
Thickness [mm]	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150
R_D [m ² K/W]	-	-	-	-	1,40	1,70	2,00	2,30	2,55	2,85	3,15	3,45	3,75	4,05	4,35
Thickness [mm]	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300
R_D [m ² K/W]	4,65	4,95	5,20	5,50	5,80	-	-	-	-	-	-	-	-	-	-



LOGISTICS INFORMATION

Full truck loading: 22 standard pallets / 11 pallets marked with H2,6

STORAGE

The product may only be stored outdoors in an intact, originally packed pallet. Protected against the harmful effects of weather conditions and set on a dry and stable surface.

Maximum stacking height of pallets up to three meters.

ADDITIONAL INDICATIONS ON THE LABEL

H2,6 - pallet with a height of about 2,6 m / twice the amount of the product compared to a standard pallet

(PILLAR) - product on a stone wool base instead of a wooden pallet

(X slabs) - number of slabs in the pack

(N) / (S) - code of the region



Certificate number: **1454-CPR-0292**

Designation code: **MW-EN13162-T5-DS(70,90)-CS(10)0,5-WS-WL(P)-MU1**

Declaration of performance no: **TNI/C/TCFW/2022_08**



Additional
information

GENERAL TERMS AND CONDITIONS OF SUPPLY

1. Application of these general conditions

1.1. These General Terms and Conditions of Supply (hereinafter referred to as "General Terms and Conditions" or "GTCs") are an integral part of all contracts (in particular, sales and deliveries), based on which the transfer of ownership of the Goods offered by Boerner Insulation sp. z o.o. takes place (hereinafter: "Goods") to the entities (companies) purchasing the Goods (hereinafter: "Buyers"). Boerner Insulation sp. z o.o. is hereinafter also referred to as the "Seller". All offers, order confirmations, deliveries and invoices of the Seller shall be executed on the basis of these General Terms and Conditions, unless otherwise agreed by the Seller in writing under pain of nullity. Deliveries outside the territory of Poland require separate individual arrangements.

1.2. If the agreed terms and conditions of the sales contract binding the Seller and the Buyer in writing (under pain of invalidity) differ from the General Terms and Conditions, the terms and conditions of the contract shall prevail.

1.3. If one or more provisions of these General Terms and Conditions are declared invalid or inapplicable, the remaining provisions of the General Terms and Conditions shall remain in effect. The invalid or inapplicable provisions may be amended in such a way that their content remains, as far as possible, as close as possible to the original provisions that were declared invalid or inapplicable.

1.4. These General Terms and Conditions are effective as of 11/12/2023.

2. Entering into a contract - Receiving orders

2.1. The Seller shall sell (dispose of) the Goods to the Buyer on the terms and conditions of the Commercial Cooperation Agreement linking them, the GTC and the order submitted by the Buyer (hereinafter: "Order") confirmed by the Seller. The Seller reserves the right to accept or reject the Order.

2.2. Any offers (including price lists) presented by the Seller to the Buyer shall be valid only for the period specified therein and shall expire thereafter without cancellation. Unless otherwise specified, an offer shall be deemed valid until revoked or a new offer is presented. The dates (or dates) of delivery indicated in the offer by the Seller shall be considered by the Seller as indicative and non-binding.

2.3. The Buyer may submit Orders using e-mail to: zamowienia@boernerinsulation.pl or through the electronic ordering system.

2.4. Orders should be placed on business days between 8:00 a.m. and 4:00 p.m. and will include:

- Buyer's name and address and delivery address including postal code,
- the name of the person placing the Order,

■ the name and telephone number of the person authorized to receive the Order,

■ Buyer's Order number and/or date of issue,

■ quantity and assortment of Goods,

■ the proposed delivery date or delivery schedule.

2.5. In the case of errors in the Order, the Buyer shall be solely responsible for their consequences.

2.6. The Seller shall return confirmation of receipt of the Order. If the delivery date or delivery schedule proposed in the Order is not possible, the Seller shall deliver the ordered Goods on the nearest possible date of execution.

2.7. Any cancellations or changes to the Order executed from warehouses located in the territory of the Republic of Poland may be notified in writing by the Buyer to the Seller at least 48 h before the date of scheduled delivery. Cancellations and changes referred to in the preceding sentence shall be binding, provided that the Seller expressly confirms them. Orders carried out directly from the production plant may be amended (by mutual agreement) within a period of not less than 10 working days. In this case, the Seller stipulates that the delivery date may be changed.

2.8. In the event that the Buyer is in arrears with payments for the purchased Goods and in the event that the Seller's Insurer withdraws insurance coverage or reduces its limit in relation to the Buyer, the Seller may unilaterally suspend the acceptance of new Orders and the execution of those already confirmed until the Seller's claims against the Buyer are satisfied, as well as cancel the execution of confirmed Orders. Exercise of the aforementioned rights shall not constitute grounds for compensation claims by the Buyer. The Buyer waives such claims in full.

2.9. In a situation where the Seller will not be able, for reasons beyond its control, to execute an Order, already after confirmation of its acceptance, it shall notify the Buyer of this fact, and the Parties shall jointly determine further proceedings.

2.10. In the event of non-acceptance of the Goods ordered by the Buyer and delivered by the Seller, the Buyer shall bear all costs of transportation, shipping and insurance of the Goods.

3. Prices

3.1. Unless otherwise agreed by the Parties in writing, the prices indicated by the Seller in the specified quotation shall apply to each Order, and in the absence thereof, the prices indicated in the price lists provided by the Seller to the Buyer, in effect at the time of the Order.

3.2. The price is fixed and not subject to any changes. If the price is expressed in Euro, it will be converted into PLN at the average Euro-PLN exchange rate announced by the National Bank of Poland on the date of the invoice or on the

day preceding the date of the invoice and valid on the date of the invoice. The invoice must include the exchange rate used for conversion and the number of the exchange rate table.

4. Delivery - Risk of loss - Transfer of ownership

4.1. Delivery of the Goods to the Buyer shall be made in accordance with the Incoterms 2020 agreed upon with the customer.

4.2. Ownership of the Goods shall pass to the Buyer upon execution of a given delivery and upon payment of the price, in accordance with the Incoterms 2020 agreed upon terms of issue.

4.3. Any deductions of the Buyer's receivables from the Seller with the Seller's receivables from the Buyer for payment of the price of the Goods or from other titles are excluded.

5. Delivery time - Receiving delivery

5.1. Delivery of the Goods shall be made on the agreed delivery date (or dates). In case of discrepancies between the delivery dates (or dates) provided by the Buyer and those provided as indicative and the delivery dates (or dates) provided by the Seller, the latter shall prevail.

5.2. The Seller reserves the right to execute the Order also through partial deliveries and to issue partial invoices depending on the deliveries made, unless the Buyer expressly excludes such possibility in the Order, and the Seller has expressly consented to it.

5.3. In case the Seller delivers the Goods to the Buyer's warehouse at the delivery address indicated in the Order, the Buyer guarantees that the warehouse indicated by the Buyer on the date of delivery will be prepared for unloading the ordered Goods. The Buyer shall sign the warehouse WZ document / shipping documents, referred to as delivery documents, writing in them the date, time of receipt of the goods, signature and putting the company stamp, confirming receipt of the Goods.

5.4. In case the Buyer takes the Goods from the Seller's warehouse with his own transport, he shall then sign the warehouse WZ document, confirming receipt of the Goods.

6. Payments

6.1. Payments shall be made by the Buyer, in each case, in the manner agreed upon in the business cooperation agreement or on the Order confirmation and/or invoice sent to the Buyer by the Seller.

6.2. Missing or partial payments, payment after the expiry of the time limit indicated in the Seller's invoice or debit note shall constitute a reason for the Buyer's failure to comply with the agreed terms of payment for the Goods. In no case shall the Buyer be entitled to suspend or delay payment in

the event of a claim, a claim under liability for defects (e.g. under quality warranty).

6.3. In the cases referred to in Section 6.2, the Seller shall have the right, at its sole discretion, without incurring any liability for damages, to:

- non-performance of the Order and withdrawal from the contract in question in whole or in part,
- to suspend and/or refuse delivery of Goods ordered and not yet delivered, including in the case of Goods related to missing or delayed payment until the Buyer has paid in full the amount due,
- withdrawal or reduction in the value of the credit line granted to the Buyer and/or
- request payment guarantees and/or other payment terms and methods from the Buyer, both for pending and future deliveries.

7. Complaint procedure

7.1. The Seller guarantees the absence of defects in the Goods, as well as the quality compliance of the Goods with the technical specifications, in certificates and technical approvals, which are the condition for approval for use in construction.

7.2. Any complaints related to visible defects of the Goods, delivery time, differences in quantity and/or type resulting from the shipping document and the delivered Goods, the condition of packaging or erroneously issued invoice should be reported immediately to the Seller, but no later than within 2 (two) days from the date of delivery of the Goods to the Buyer or, in the case of non-visible defects that cannot be detected during ordinary inspection during delivery, within 10 (ten) days from their detection.

7.3. Quantitative and qualitative complaints do not relieve the Buyer from the obligation of timely payment to the Seller.

7.4. The Buyer shall report complaints to the Seller by e-mail to the following e-mail address: reklamacje@boernerinsulation.pl.

7.5. Complaints may be of the following types:

- may result from transportation damage;
- may relate to mechanical damage, e.g., dents, tears, cracks in the Goods and/or deficiencies in the Goods delivered;
- may relate to quality issues.

7.6. In the case of transport damage (e.g. damaged packaging or incomplete delivery), the Buyer, before filing a claim with the Seller, undertakes to prepare a discrepancy report with photographic documentation by an authorized representative of the Buyer with the participation of the carrier on the day of delivery or within 3 days from the date of delivery. The Buyer bears the burden of proof that the damage occurred in transit and not during the setting up of the goods in the Buyer's warehouse. The absence of a protocol drawn up within 3 days from the date of delivery by an authorized representative of the Buyer with the participation of the carrier shall place the responsibility for transport damage solely on the Buyer, and the Buyer waives any claims on the aforementioned grounds

and titles against the Seller. After the protocol of discrepancies is drawn up by the carrier, the Buyer shall immediately report complaints to the Seller attaching the protocol of discrepancies.

7.7. The Buyer, with regard to the complaint referred to in item 7.5b, is obliged to report it to the Seller immediately after opening the original packaging, no later than within 48 hours from the date of receipt of the Goods, under pain of losing claims for defects. After unpacking the Goods, the Buyer undertakes to keep the label of the Goods for inspection by the Seller.

7.8. The Buyer, with regard to complaints referred to in item 7.5c, is obliged to report them to the Seller immediately after opening the original packaging and finding quality defects during the first use of the Goods, no later than within 48 hours, under pain of losing claims for defects. After unpacking the Goods, the Buyer agrees to keep the label for inspection by the Seller.

7.9. The Seller shall, within 14 (fourteen) working days from the date of the Buyer's complaint notification to him, inspect the Goods under complaint and verify the validity of the complaint, and then issue a decision on its acceptance or rejection, of which he shall inform the Buyer in writing.

7.10. The Seller reserves the right to inspect the Goods in advance to determine whether a defect exists and whether the Seller is responsible for the defect; if so, the Seller agrees, at its sole discretion, to replenish the Goods that the Seller deems defective and, if this is not possible, to refund in whole or in part the payment made by the Buyer, without any liability on the part of the Seller for the Buyer's direct or indirect damages of any kind.

7.11. The Seller shall be liable for the quality of the Goods sold under the quality guarantee referred to herein. The Seller's liability under the warranty referred to in the Civil Code is excluded.

8. Earlier solution

Without excluding the right to any other available remedy, the Seller shall have the right to terminate early any contract entered into under these General Terms and Conditions, with immediate effect, by registered letter with acknowledgment of receipt sent to the Buyer in the event of a breach by the Buyer of any obligation under these General Terms and Conditions, unless such breach is remedied by the Buyer within fifteen (15) consecutive days after written notice from the Seller.

9. Confidential information

9.1. Seller's confidential information shall belong exclusively to Seller and shall be made available to Buyer on a confidential basis (even if Seller has received such information from third parties), solely for the purpose related to the sales contract/order concluded based on these General Terms and Conditions. The Buyer therefore accepts the obligation to use the Seller's

confidential information only to the extent strictly related to the performance of each sales contract/order and the use of the respective Goods, and not to disclose such confidential information to third parties, unless the Seller has given written authorization to do so.

9.2. The obligation of confidentiality referred to in Section 9.1 shall not apply to information that:

- were publicly known at the time of their disclosure,
- which the obligation to disclose arises from a mandatory provision of law, a court decision or a decision of another authorized authority, subject to prompt notification of the Seller of such obligation.

10. Force majeure and limitation of liability

The Seller shall not be liable to the Buyer for any non-performance of the contract and execution of confirmed Orders caused by events beyond the reasonable control of the Seller, such as, for example, but not limited to, strikes, riots, wars, traffic obstructions, natural disasters, administrative decisions, embargoes, other orders of authorities, missing or delayed deliveries of processing materials or Goods by the Seller's suppliers caused by events beyond the reasonable control of the suppliers themselves. In the event of a force majeure event, the Seller shall notify the Buyer without delay, but no later than 24 hours from the confirmed delivery date, providing, if possible, a new delivery date. If the new delivery date is not satisfactory to the Buyer, the Buyer has the right to cancel the delivery of the ordered Goods without incurring any additional costs on this account. If the Seller cannot, due to the occurrence of a "force majeure" event, execute the confirmed Order, the Seller shall immediately notify the Purchaser of this fact. In such a case, the Seller shall have the right to withdraw from the execution of the Order, without incurring any additional costs on this account.

11. Information clause on the processing of personal data

Pursuant to Article 13(1) and (2) of Regulation (EU) 2016/ 679 of the European Parliament and of the Council of April 27, 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC ("RODO"), we inform you that:

The administrator of your ("Buyer's") personal data is Boerner Insulation Spółka z ograniczoną odpowiedzialnością with its seat in Wykroty, 55 Wyzwolenia Street, 59-730 Nowogrodzic, registered in the register of entrepreneurs kept by the District Court of Wrocław Fabryczna in Wrocław, IX Economic Department of the National Court Register under the KRS number 0000782180, NIP 6121867729, REGON 383112788 ("Administrator"). In matters of personal data protection, please contact at e-mail address: sekretariat@boernerinsulation.pl.

Your personal data will be processed for the following purposes

based on the following legal grounds:

■ in terms of receiving and archiving the Buyer's declarations of intent, as an exercise of the rights of persons using the services provided by the Administrator - Article 6(1)(b), (c) and (f) RODO (performance of a contract/order, performance of a legal obligation incumbent on the Administrator and the Administrator's legitimate purpose/justified interest),

■ in order to process any complaints or claims made - Article 6(1)(b) and (f) RODO (legitimate purpose/reasonable interest of the Administrator),

■ in terms of pursuing business claims - Article 6(1)(f) RODO (legitimate purpose/ legitimate interest of the Administrator),

■ in terms of bookkeeping and settlements for the implementation of the concluded supply contract - Article 6(1)(b) and (f) of the Regulation (performance of the contract/order, performance of a legal obligation incumbent on the Administrator and the Administrator's legitimate purpose/reasonable interest).

The Administrator shall keep personal data for the following period:

■ in the case of data processing for the purpose referred to in point (ii) letters a - c - for the period of the statute of limitations for claims on account of the Administrator's business activity or the Buyer's pursuit of claims specified by law, in particular the Civil Code,

■ in the case of data processing for the purpose referred to in point (ii)(d) - for the period required by law mandating the controller to keep accounting records (5 years, counting from the beginning of the year following the fiscal year to which the data refer).

The obligation to provide data results from the provisions of law with regard to processing for the purposes referred to in point (ii) letters a and d, and in the case of processing for the purposes referred to in point (ii) letters b - c - the provision of data additionally results from the contractual relationship and is necessary for the performance of the contract/order. Refusal to provide data in connection with the processing for the purposes indicated in the preceding sentence will make it impossible for the Administrator to ensure the Buyer's proper use of the services covered by the contract/order, and in particular will make it impossible to process claims submitted by the Buyer.

You have the right to access the content of your personal data, the right to rectify, delete them, as well as the right to limit their processing/the right to withdraw consent, the right to data portability, the right to object to the processing of your personal data.

You have the right to lodge a complaint to the supervisory authority if, in your opinion, the processing of your personal data - violates the provisions of the RODO.

The provision of personal data by you is a legal requirement and the condition for the conclusion of an agreement/performance of an order. Failure to provide personal data will result in the inability to provide services in the above-mentioned scope.

Please be informed that your personal data will be transferred

to the following categories of data recipients: (i) entities cooperating with the Administrator in the performance of services covered by the contract/order, in particular contractors and installation companies, (ii) entities having contracts for the Administrator's IT support, (iii) providers of legal, accounting, bookkeeping or consulting services and supporting the Administrator in the enforcement of due claims (in particular law firms, debt collection companies), only for the purpose and to the extent necessary for the performance of the contract/order.

Your personal data will not be processed in an automated manner and will not be profiled.

12. Applicable law, dispute resolution

12.1. These General Terms and Conditions and sales/order contracts to which the Seller is a party shall be governed by Polish law. Any liability of the Seller to the Buyer for damages shall be limited to actual damages only. Liability for lost profits is excluded. The amount of the Seller's liability for damages due to non-performance or improper performance of a given obligation under a concluded sales or delivery agreement (the so-called Order) shall be limited to the amount of the price resulting from such agreement (Order).

12.2. The Court of competent jurisdiction, on an exclusive basis, for all disputes arising out of and/or relating to these General Terms and Conditions and the sale of Goods by the Seller shall be the Court having jurisdiction over the registered office of the Seller.

DESCRIPTION OF PICTOGRAMS



REPAIRABLE



DISTRIBUTES THE LOAD



DOUBLE-LAYER



FIRE RESISTANT



DURABLE



FAST INSTALLATION



SOLID



EASY INSTALLATION



FOR ALL WEATHER



ACOUSTIC INSULATION



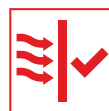
WATERPROOFING



RELIABLE



IMPACT NOISE PROTECTION



VAPOR PERMEABLE



VAPOR INSULATION



VENTILATION CHANNELS