



PRODUCT CATALOGUE

Stone wool | Czech Republic

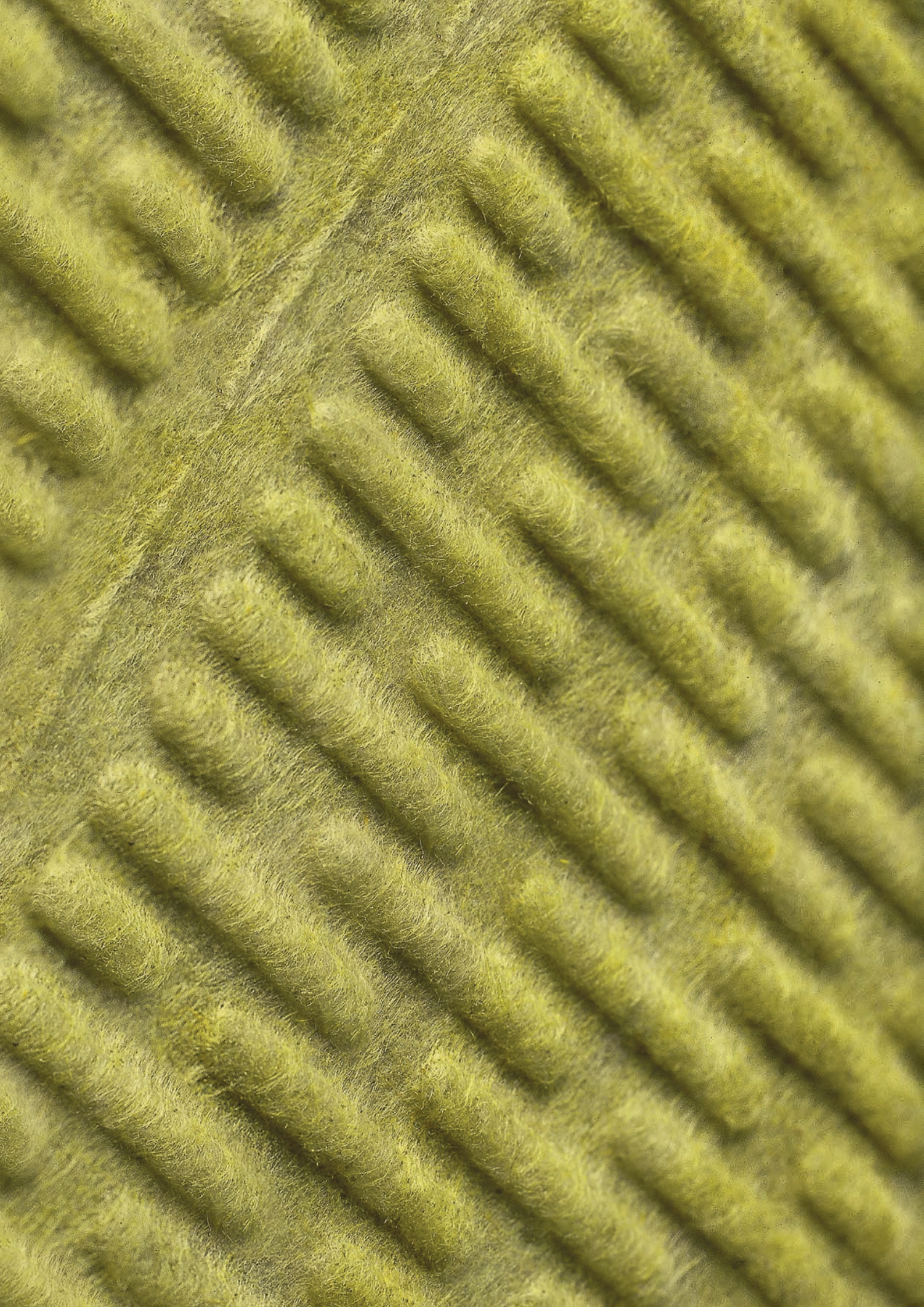


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Legend of Isover products

GLASS WOOL

STONE WOOL

ADDITIONAL MATERIALS

EXPANDED POLYSTYRENE

Isover

It has been developing, manufacturing and selling thermal, acoustic and fire insulation materials of the highest quality since 1936, more than 80 years. It is the world's most important and largest manufacturer, with a worldwide presence and production facilities.

Isover's complete product range in the Czech Republic includes **basalt wool, glass wool and expanded polystyrene products and accessories for system insulation solutions** for insulating floors, partitions, walls, façades, ceilings, soffits, flat and pitched roofs and pipework. Of course, expert advice on the most suitable type of insulation material is provided to achieve the optimum solution according to the customer's needs and requirements, both technically and economically.

The Isover brand is a leader on the Czech market with a tradition of production for more than 50 years in its own production plant in Častolovice, East Bohemia, and thanks to its plants in Český Brod and Lipník nad Bečvou it is also one of the largest producers of EPS (expanded polystyrene) in the Czech Republic.



Quality
Products



Traditional brand
in the market



Expert
advice



We think about the
environment and
ecology



Improving the safe-
ty and quality of the
working environment

Isover Častolovice



Isover basalt fibre insulation is produced in the production plant in Častolovice. The origins of production here date back to 1966, when the first production line was installed. Today, production is world-class according to WCM – World Class Manufacturing methods.

Isover Český Brod



Expanded polystyrene has been produced in Český Brod since 1994. In addition to the usual range of building insulation and packaging material, the plant also produces products on a shape cutter, shape mould and products for special applications. Recycled EPS is also used in production.

Isover Lipník nad Bečvou



Since 2009, expanded polystyrene has also been produced in Lipník nad Bečvou. In addition to cut and shaped EPS, the plant also produces special sizes and shapes on a 3D cutting machine. Recycled EPS is also used in production.



Expert advice on choosing the most
suitable type of insulation material to
achieve the optimum solution.



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Častolovice production plant

Arnošt Bartoň founded a small factory for the production of tar products in Častolovice.



The production capacity was expanded by the installation of the second line, ČA II.

As the plant expanded, production capacity increased, with the first Cultilene plant production line installed in 2002.

On 2 June 2016, the Častolovice plant officially celebrated its 50th anniversary of mineral insulation production.

1899

The first mineral insulation production line was fully commissioned.

The Českomoravské eternitové závody plant was closed down and the production was changed to mineral felts in the framework of the then socialist economy.



1966

1987

1996

The foreign capital of the Saint-Gobain and the ČA I and ČAII production lines were gradually reconstructed.

2002

2009

In 2009 the company changed its name to Saint-Gobain Construction Products CZ a.s. Subsequently, in 2010 it took over the production of polystyrene with production plants in Lipník nad Bečvou and Český Brod.

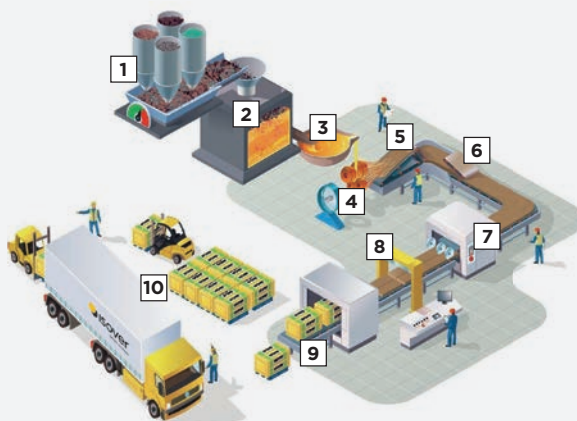
2016

2023



Mineral wool production scheme

1. The feedstock includes basalt, slag and diabase.
2. Feedstocks are melted at high temperatures in a cupola furnace.
3. The output of the furnace is molten lava, which flows to the pulping machines.
4. Binders and impregnating oils are added to the liquid mass to ensure greater stability and water resistance of the fibres.
5. The wool is layered using a swing system, with the amount of wool deposited corresponding to the final material properties.



6. In the crepe machine, the material is compressed to the desired thickness and the bulk weight is adjusted if necessary.
7. Using a system of longitudinal, transverse and cutting saws, the material is formatted into its final dimensions in the form of plates or slats.
8. The waste material generated during production is crushed on the recycling line, where it is further mixed and pressed into briquettes and again consumed in the dome furnace of the production lines during the melting of the feedstock.
9. In the packaging line, the products are packed in packaging with the Isover logo.
10. The final products are shipped to the construction sites, transported primarily by trucks.

What is EPD?

Environmental Product Declaration

ENVIRONMENTAL PRODUCT DECLARATION

Sustainable development is one of the core elements of Saint-Gobain's strategy. The company's goal is to produce products with a low environmental impact and a positive effect in their application. From our point of view, LCA and EPD serve as good tools for assessing the environmental impact of products installed in buildings.

The LCA (Life Cycle Assessment) methodology is a method for the life cycle assessment of products. The scientifically-based method covers the inputs to production, transport, distribution, installation, use and end of life cycle of products through mathematical calculations to determine the environmental impact. The entire process is then verified by an independent verifier and an Environmental Product Declaration (EPD) is obtained. Such products are then, for example, subsidised in the New Green Savings Programme or in certification tools such as LEED, BREEAM or SBTool CZ.

WHAT THE EPD IS NEEDED FOR

The EPD provides the possibility of directly comparing different products. Specifically, for insulation materials with the same thermal resistance value, it is possible to compare the environmental impact of 1 m² of insulation. Two different products can save the same amount of heating energy and reduce the same amount of CO₂ emissions. However, their production may not have the same environmental impact as the production method and input materials may be very different.

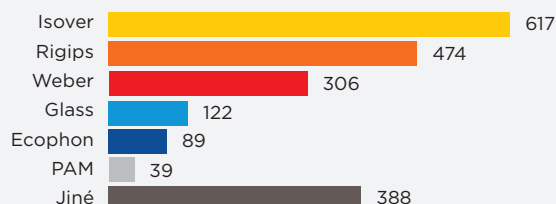
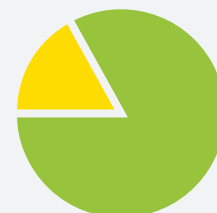
WHY IS IT IMPORTANT TO HAVE AN EPD?

This comprehensive protocol of the environmental context of each product is an important basis for certified buildings, both facilitating the certification process and increasing the overall rating. The EPD is proof that a company is thinking about the impact of its activities.



Saint-Gobain products represent 15% of all EPDs

2000
VERIFIED EPDS
DOCUMENTS



ISOVER

Isover insulation materials meet all the requirements that modern housing places on thermal insulation. All of our basalt wool and glass wool is produced from natural and biodegradable fibres according to the strictest European standards. Isover polystyrene foam products are manufactured without the use of CFCs and HCFCs, known as CFCs, as well as banned flame retardants (HBCDD).

Mineral wool saves up to 300 times more energy than is needed to produce it. In addition, issues such as CO₂ and SO₂ emissions, water management, production waste and recyclability are being investigated.

The life cycle of a product starts from the point of extraction of raw materials and continues through processing in the manufacturing plant and distribution to the construction site and then the use of the product throughout its lifetime. The end of the product life cycle is an integral part of the product life cycle analysis. The product drops out of the cycle as waste, or better, is returned to the cycle as recycle.

Environmental certification of buildings

Certification systems, assessments and certificates

LEED



LEED offers a wide range of alternative credit fulfilment options for Europe within the framework of European standards and practices. The certification has the highest-quality building energy performance rating of all the systems in dynamic computer modelling. It has been developed by the US Green Building Council (USGBC) since 2000.

Rating scales and certificates



Basic
Certification
40-49 Points



Silver
Certification
50-59 Points



Gold
Certification
60-79 Points



Platinum
Certification
80-110 Points



Dock In Four / LEED / 2021
Administrative building in Prague

BREEAM



BREEAM has been developed by BRE (the British Research Establishment) since 1990. It is a standard of best practice in building design, with an emphasis on sustainable construction. It is the oldest and currently the most widely-used certification in the field of energy-efficient and sustainable buildings. The BREEAM rating looks at the specification of a building and its design, construction and use. BREEAM uses recognised performance benchmarks.



< 10 % Unclassified	☆☆☆☆☆
> 10 % Acceptable	★☆☆☆☆
> 25 % Pass	★★☆☆☆
> 40 % Good	★★★☆☆
> 55 % Very good	★★★★☆
> 70 % Excellent	★★★★★
> 85 % Outstanding	★★★★★



BB Centrum Delta / BREEAM / 2016
Administrative building in Prague

Assessment category and credit weighting

LEED v4	BREEAM
14%/Location and transportation	8%/Transport
10%/Sustainable sites	10%/Land use and technology
10%/Water efficiency	6%/Water
30%/Energy and atmosphere	19%/Energy
11%/Materials and resources	12.5%/Materials
14%/Indoor environmental quality	15%/Health and wellbeing
6%/Innovation	12%/Management
4%/Regional priority	10%/Pollution
1%/Interactive process	7.5%/Construction waste

USE OF MINERAL WOOL BUILDING INSULATION

THERMAL INSULATION	BASALT INSULATION													
Isover	Uni	Orsik	Tram MW	Aku	N	T-N	T-P	N/PP	NF 333	Top V	Top V Final	TF Profi	TF Prim	TF Thermo
Shape	Panels		Prism	Panels				Tapes	Panels					
Stated thermal conductivity λ_D W·m ⁻¹ ·K ⁻¹ acc. to EN 12667	0.035	0.037	0.044	0.035	0.035	0.036	0.037	0.036	0.040	0.040	0.040	0.035	0.035	0.035
Pitched roofs														
Between rafters	1	2		2										
Under rafters	1	1		2										
Above rafters - non-loadable	1	2		2										
Above rafters - loaded			1											
For intermediate ceiling (at the level of tie beams, collar beams)	1	2		2										
Sloping green roof														
Internal construction														
Plasterboard partition	1	1		1										
Thermal and acoustic insulating overhanging wall	1	1		1	3	3								
Sound-absorbing lining (grid + perforated cladding)	2	2		2										
Ceiling under unheated space (free laying)	2	1		2										
Wooden beam ceiling (filling)	2	1		2										
Soffit structures (filling)	2	1		2										
Floor structures														
Heavy duty floating - reinforced concrete spreader plate					1	1	2							
Heavy duty floating - anhydrite screed					2	1	2							
Light floating floors							1							
Light prefabricated - on load-bearing spread webs	2	1		2										
Expansion joints for walls and openings in vertical structures					2			1						
Perimeter wall, ceiling (passage)														
Systemic contact insulation									1	3	3	1	1	1
External cladding for the lower face of the ceiling									1	1	1	3	3	3
Overhanging facades (in grid, 2 above-ground floors maximum)	1			3										
Overhanging facades (in grid)	1			3								3	3	3
Overhanging facades (mechanically anchored, self-supporting)	3			3					3	3	3	3	3	3
For walls of adjacent buildings - expansion joint					1	1						3	3	3
Prefabricated cassette claddings	1			2										
Timber frame constructions	1	2		2										
Flat roofs														
Single-skin roof - bottom layer														
Single-skin roof - top layer														
Single-skin roof - dropping layer														
Double-skin roof - intermediate roof space	1	1		1	3	3	3							
Extensive flat green roof														
Intensive flat green roof														

1 Best variant (requirements for quality thermal or acoustic insulation)

2 Standard variant (meeting typical thermal and acoustic insulation requirements, possibly with minor limitations in use)

3 A viable alternative variant (use with certain limitations or with more demanding installation)

2.
...and choose the best option

Choose your product

The above recommendations are based on the usability, quality and price of individual products. Quality requirements have 3 levels, and include thermal and acoustic insulation capacity plus fire performance. Consequently, the data in the table are indicative only; if you are unsure, please contact the customer service department.



LIGHT AND MIDDLE STONE WOOL



Isover

Uni

$$\lambda_D = 0.035 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$

Density: 40 kg/m³



HIGH QUALITY UNIVERSAL BASALT FIBRE INSULATION

High quality universal insulation made of basalt fibres, especially suitable between and under rafters. Supplied by complete pallets (bales on a pallet), loose bales can also be supplied at an additional charge.

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Per pallet (m ²)	Quantity per pallet (pcs)	Declared thermal resistance R ₀ (m ² ·K·W ⁻¹)
40	1200 × 600	8.64	0.35	198.72	23	1.10
50	1200 × 600	7.20	0.36	165.60	23	1.40
60	1200 × 600	5.76	0.35	132.48	23	1.70
80	1200 × 600	4.32	0.35	99.36	23	2.25
100	1200 × 600	3.60	0.36	82.80	23	2.85
120	1200 × 600	2.88	0.35	66.24	23	3.40
140	1200 × 600	2.16	0.3	56.16	26	4.00
150	1200 × 600	2.16	0.33	51.84	24	4.40
160	1200 × 600	2.16	0.35	49.68	23	4.55
180	1200 × 600	1.44	0.26	41.76	29	5.10
200	1200 × 600	1.44	0.29	37.44	26	5.70

Isover

Orsik

$$\lambda_D = 0.037 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$

Density: 30 kg/m³



POPULAR BASALT FIBRE INSULATION

Isover boards are suitable for unloaded thermal, acoustic and fire protection insulation, especially for pitched roofs with insertion between rafters and in additional grid, in partitions, insulation of wooden ceilings, soffits and cavities. Higher thicknesses (220-300 mm) can be supplied on request. Supplied in complete pallets (bales on a pallet), loose bales can also be supplied at extra cost.

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Per pallet (m ²)	Quantity per pallet (pcs)	Declared thermal resistance R ₀ (m ² ·K·W ⁻¹)
pro CW50 40	1200 × 625	9	0.36	207.0	23	1.05
50	1200 × 625	7.5	0.38	165.0	22	1.35
60	1200 × 625	6	0.36	138.0	23	1.60
pro CW75 70	1200 × 625	4.5	0.32	117.0	26	1.85
80	1200 × 625	4.5	0.36	103.5	23	2.15
pro CW100 90	1200 × 625	3	0.27	87.0	29	2.40

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Per pallet (m ²)	Quantity per pallet (pcs)	Declared thermal resistance R ₀ (m ² ·K·W ⁻¹)
100	1200 × 600	3.6	0.36	82.80	23	2.70
120	1200 × 600	2.88	0.35	66.24	23	3.20
140	1200 × 600	2.88	0.4	57.60	20	3.75
160	1200 × 600	2.16	0.35	49.68	23	4.30
180	1200 × 600	2.16	0.39	43.20	20	4.85
200	1200 × 600	1.44	0.29	37.44	26	5.40

Isover

Aku

$$\lambda_D = 0.035 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$

Density: 40 kg/m³



SPECIAL ACOUSTIC INSULATION IN BOARDS

Isover Aku is the ideal material for use in plasterboard partition and suspended ceiling constructions with a module of 625 mm and is therefore very widely used in dry construction. Thanks to long-term measurements in laboratories and monitoring of market demand, an insulation has been developed that meets high demands in terms of acoustics and fire resistance with a requirement for a bulk density $\geq 40 \text{ kg} \cdot \text{m}^{-3}$.

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Per pallet (m ²)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
pro CW50 40	1000 × 625	7.500	0.30	150.00	1.10
50	1000 × 625	6.250	0.31	137.50	1.40
60	1000 × 625	5.000	0.30	100.00	1.70
pro CW75 70	1000 × 625	3.750	0.26	97.50	2.00
80	1000 × 625	3.750	0.30	75.00	2.25
pro CW100 90	1000 × 625	3.125	0.28	68.75	2.55
100	1000 × 625	3.125	0.31	68.75	2.85

Isover

Tram MW

$$\lambda_D = 0.044 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$



STRUCTURAL BEAMS FOR THE INSULATION SYSTEM ABOVE THE RAFTERS

Structural beams for the insulation system above the rafters. Supplied on pallets.

Height (mm)	Dimensions (mm)	Volume per packaging (m ³)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
200	1200 × 100, 1000 × 100	60/72	4.50
240	1200 × 100, 1000 × 100	49/60	5.45
280	1200 × 100, 1000 × 100	42/51	6.35

Isover

Tram EPS

$$\lambda_D = 0.035 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$

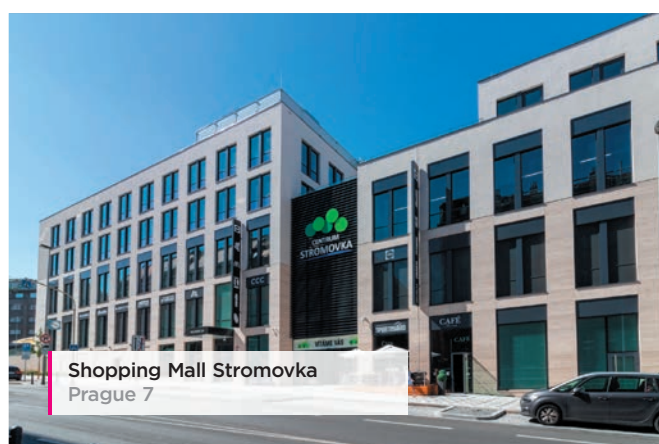
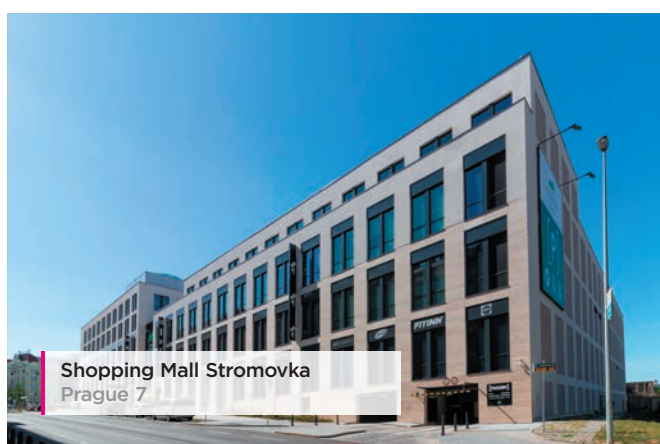
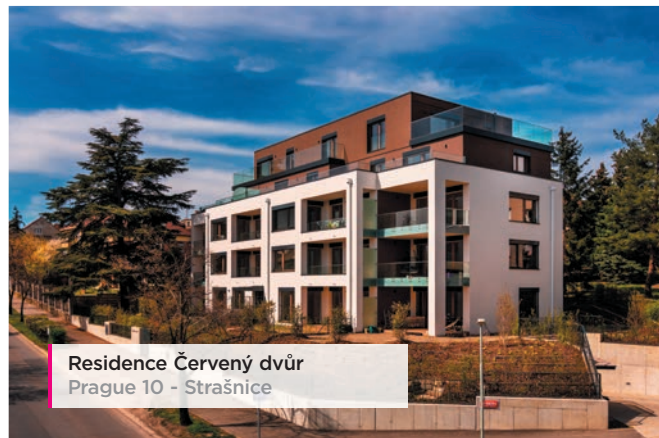
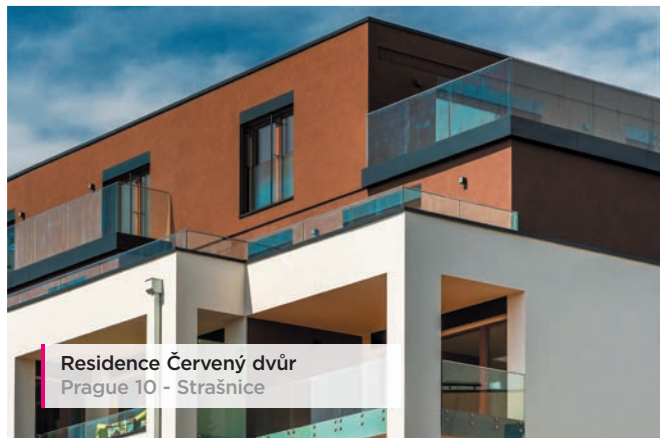


STRUCTURAL BEAMS FOR THE INSULATION SYSTEM ABOVE THE RAFTERS

Structural beams for the Isover X-Tram above rafter insulation system (consumption 1.5 pcs/m²), Isover Double Tram below rafter insulation system and Isover StepCross system (consumption 1.2 pcs/m²).

Height (mm)	Dimensions (mm)	Packaging (m ²)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
100	1 000 × 100	25	2.85
120	1 000 × 100	20	3.40
140	1 000 × 100	15	4.00
160	1 000 × 100	15	4.55
200	1 000 × 100	10	5.70
240	1 000 × 100	10	6.85
260	1 000 × 100	5	7.40
280	1 000 × 100	5	8.00
300	1 000 × 100	5	8.55
320	1 000 × 100	5	9.10
340	1 000 × 100	5	9.70
360	1 000 × 100	5	10.20
400	1 000 × 100	5	11.40

References



Do you need to know more?



Other references you can find at:
www.isover.cz/referencni-stavby

Isover X-Tram

System composition of above-roof insulation of pitched roofs

Main benefits of the system

- Lower price compared to alternative systems
- Open ceiling in the interior
- Minimisation of thermal bridges
- Reduced risk of vapour barrier damage
- Elimination of construction defects
- Options for combining the insulation method
- Higher interior living space
- Proven function for more than 20 years
- System tested in CSI
- Savings on SDK boards and grids
- Shape stability
- Zero pruning at corners and in valleys



Materials used



Isover
Uni



Isover
Tram EPS



Isover
Vario XtraSafe



Isover
Vario XtraTape



Isover
Vario DoubleFit+

Alternative



Isover
Orsik



Isover
Tram MW



Isover
Vrut HTP

Technical data sheet of the construction

www.isover.cz/dokumenty/systemove-technicke-listy/stl-2024-isover-x-tram-cz-1.pdf



Do you need to know more?



Installation instructions for Isover X-tram
www.isover.cz/montazni-navod/x-tram



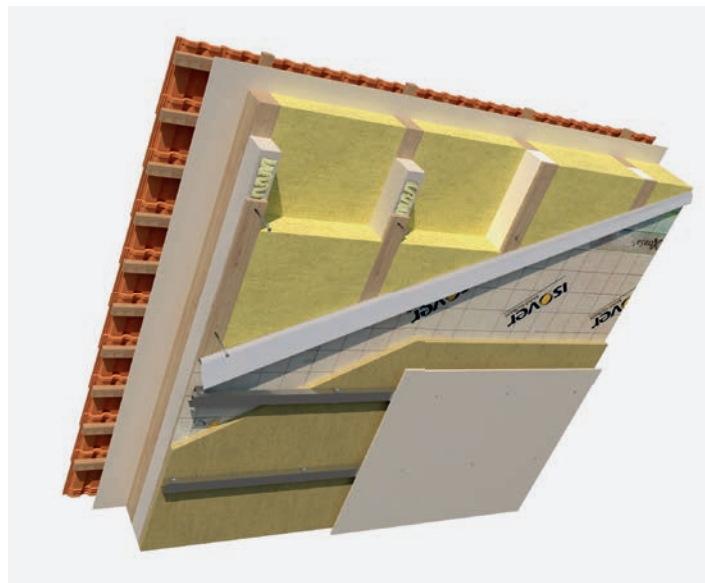
Calculation of the system
www.isover.cz/systemy/isover-x-tram

Isover Double Tram

Under-roof insulation system

Benefits

- Excellent thermal insulation properties without thermal bridges
- Simple and quick application
- Minimum load on the roof structure
- Long service life
- Ecological and hygienic safety
- Low cost of the system
- Minimisation of the acoustic bridge in the form of rafters
- Diffusion-open system
- Elimination of pruning and thus minimisation of waste
- Variant with Isover Tram MW – reaction to fire class A1
- The Isover Tram MW variant has very good acoustic properties
- Total insulation up to a thickness of up to 10 mm. 580 mm under optimal conditions



Materials used



Isover
Unirol Profi



Isover
Tram EPS



Isover
Uni



Isover
Vario[®] KM Duplex UV



Isover
Propeller DBT

Alternative



Isover
Orsik



Isover
Tram MW



Isover
Vario[®] KB1



Isover
Vario[®] DoubleFit+

System Technical Data Sheet

www.isover.cz/dokumenty/systemove-technicke-listy/stl-2024-isover-double-tram-cz.pdf



Do you need to know more?



Installation instructions for Isover Double Tram
www.isover.cz/montazni-navody/zatepleni-sikme-strechy-systemem-isover-double-tram



VENTILATED FACADES



Isover

Woodsil

$$\lambda_D = 0.035 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$

Density: 37 kg/m³



BOARDS PARTICULARLY SUITABLE FOR WOODEN BUILDINGS

Basalt wool boards for insulation of wooden buildings and prefabricated structures. The width of 580 mm is the optimised size for constructions with 60 mm profile timber grids at an axial distance of 625 mm, covered with 1.250 mm OSB or SDK boards. It is delivered on pallets (pallet packs). After consultation with the manufacturer, it can also be supplied in 600 × 1 200 mm.

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Per pallet (m ²)	Quantity per pallet (pcs)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
60	1200 × 580	5.568	0.33	128.064	23	1.70
80	1200 × 580	4.176	0.33	96.048	23	2.25
100	1200 × 580	3.480	0.35	80.040	23	2.85
120	1200 × 580	2.784	0.33	64.032	23	3.40
140	1200 × 580	2.088	0.29	54.288	26	4.00
160	1200 × 580	2.088	0.33	48.024	23	4.55
180	1200 × 580	1.392	0.25	40.368	29	5.10

Isover

Fassil

$$\lambda_D = 0.034 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$

Density: 50 kg/m³



SPECIAL ISOVER MINERAL WOOL BOARDS SUITABLE FOR DRY INSULATION OF EXTERNAL WALLS

- in ventilated facades under the cladding,
- in multi-layered masonry (sandwich), especially suitable for wooden buildings.

The boards are mechanically anchored to the wall using plate dowels with a plate diameter of at least 90 mm (optimally 140 mm) in an average number of 5 pcs·m⁻². The material is also suitable as acoustic insulation and for fire protection structures with an OH requirement of ≥ 50 kg·m⁻³. It is supplied on pallets (bales per pallet).

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Per pallet (m ²)	Quantity per pallet (pcs)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
50	1200 × 600	7.20	0.36	165.60	23	1.45
60	1200 × 600	5.76	0.35	132.48	23	1.75
80	1200 × 600	4.32	0.35	99.36	23	2.35
100	1200 × 600	3.60	0.36	82.80	23	2.90
120	1200 × 600	2.88	0.35	66.24	23	3.50
140	1200 × 600	2.16	0.30	56.16	26	4.10
160	1200 × 600	2.16	0.35	49.68	23	4.70
180*	1200 × 600	1.44	0.26	41.76	29	5.25
200*	1200 × 600	1.44	0.29	37.44	26	5.85

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Per pallet (m ²)	Quantity per pallet (pcs)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
80*	1200 × 610	4.39	0.35	101.02	23	2.35
160*	1200 × 610	2.20	0.35	50.51	23	4.70

* Non-standard product, delivery terms on request.

Isover

Fassil NT

$$\lambda_D = 0.034 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$

Density: 50 kg/m³



PLATES WITH NON-WOVEN FABRIC COATING

Special Isover mineral wool boards suitable for dry insulation of external walls:

- for ventilated facades under cladding,
- in multi-layered masonry (sandwich), especially suitable for wooden buildings.

The boards are laminated with black non-woven fabric and are anchored to the structure with dowels. With a plate diameter of at least 90 mm (optimally 140 mm) in a number of 5 pcs·m⁻². Material suitable for construction for ventilated facades where higher aesthetic requirements must be met. Supplied on pallets (loose plates on 1200 mm × 1000 mm pallet, PE foiled).

Thickness (mm)	Dimensions (mm)	Per pallet (m ²)	Per pallet (m ³)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
50*	1200 × 1000	50.40	2.520	1.45
60*	1200 × 600	51.84	3.110	1.75
80*	1200 × 600	38.88	3.110	2.35
100*	1200 × 600	30.24	3.024	2.90
120*	1200 × 600	25.92	3.110	3.50
140*	1200 × 600	21.60	3.024	4.10
160*	1200 × 600	17.28	2.765	4.70
180*	1200 × 600	16.80	3.024	5.25
200*	1200 × 600	14.40	2.880	5.85

* Non-standard product, delivery terms on request.

Isover Topsil

$\lambda_D = 0.033 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$

Density: 60 kg/m³



THE BEST UNIVERSAL BASALT INSULATION ON THE MARKET

Basalt wool boards with universal use. Also suitable as acoustic insulation and in fireproofing structures with OH requirements $\geq 60 \text{ kg/m}^3$. Particularly energy-efficient insulation type $\lambda_D = 0.033 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$. Supplied on pallets (bales on a pallet).

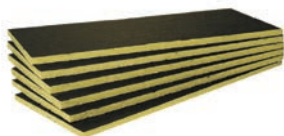
Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Per pallet (m ²)	Quantity per pallet (pcs)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)
40	1200 × 600	8.64	0.35	198.72	23	1.20
50	1200 × 600	7.20	0.36	165.60	23	1.50
60	1200 × 600	5.76	0.35	132.48	23	1.80
80	1200 × 600	4.32	0.35	99.36	23	2.40
100	1200 × 600	3.60	0.36	82.80	23	3.00
120	1200 × 600	2.88	0.35	66.24	23	3.60
140	1200 × 600	2.16	0.30	56.16	26	4.20
160*	1200 × 600	2.16	0.35	49.68	23	4.80

* Non-standard product, delivery terms on request.

Isover Topsil NT

$\lambda_D = 0.033 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$

Density: 60 kg/m³



STONE WOOL INSULATION

Basalt wool boards with a one-sided black non-woven finish glass textile. Also suitable as acoustic insulation and for fire protection structures with an OH requirement $\geq 60 \text{ kg/m}^3$. Particularly energy-efficient insulation type $\lambda_D = 0.033 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$. Loose boards on pallet, PE foil sprayed. Delivered by complete pallets. Material available on request in different thicknesses.

Thickness (mm)	Dimensions (mm)	Quantity per pallet (m ³)	Quantity per pallet (m ²)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)
50*	1200 × 1000	2.520	50.40	1.50
60*	1200 × 600	3.110	51.84	1.80
80*	1200 × 600	3.110	38.88	2.40
100*	1200 × 600	3.024	30.24	3.00
120*	1200 × 600	3.011	25.92	3.60
140*	1200 × 600	3.024	21.60	4.20
160*	1200 × 600	2.765	17.28	4.80
180*	1200 × 600	3.024	16.80	5.45
200*	1200 × 600	2.880	14.40	6.05

* Non-standard product, delivery terms on request.

Isover Maxil

$\lambda_D = 0.034 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$

Density: 75 kg/m³



MINERAL INSULATION FROM STONE WOOL

Insulating slabs made of ISOVER mineral wool. The production is based on defibring method of the minerals composition melt and additional additives and ingredients. The mineral fibres produced are processed into the final slab shape on the production line. The entire fibre surface is hydrophobic. The slabs in the construction should be protected suitably against the weather effects (outer sheathing, alternatively diffusion foil).

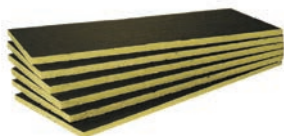
Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Per pallet (m ²)	Quantity per pallet (pcs)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)
30*	1200 × 600	10.08	0.32	120.96	12	0.85
40*	1200 × 600	7.20	0.29	86.40	12	1.15
50*	1200 × 600	5.76	0.29	69.12	12	1.45
60*	1200 × 600	5.04	0.30	60.48	12	1.75
80*	1200 × 600	3.60	0.29	43.20	12	2.35
100*	1200 × 600	2.88	0.29	34.56	12	2.90

* Non-standard product, delivery terms on request.

Isover Maxil NT

$\lambda_D = 0.034 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$

Density: 75 kg/m³



MINERAL INSULATION FROM STONE WOOL

Insulating slabs made of Isover mineral wool. The production is based on defibring method of the minerals composition melt and additional additives and ingredients. The mineral fibres produced are processed into the final slab shape on the production line. The entire fibre surface is hydrophobic. The slabs in the construction should be protected suitably against the weather effects (outer sheathing, alternatively diffusion foil).

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Per pallet (m ²)	Quantity per pallet (pcs)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)
30*	1200 × 600	10.08	0.32	120.96	12	0.85
40*	1200 × 600	7.20	0.29	86.40	12	1.15
50*	1200 × 600	5.76	0.29	69.12	12	1.45
60*	1200 × 600	5.04	0.30	60.48	12	1.75
80*	1200 × 600	3.60	0.29	43.20	12	2.35
100*	1200 × 600	2.88	0.29	34.56	12	2.90

* Non-standard product, delivery terms on request.

Need to find out more?



Technical data sheet Isover Topsil

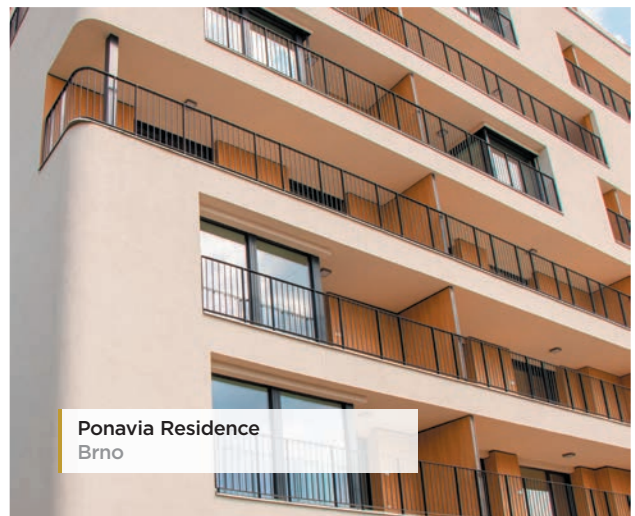
www.isover.cz/dokumenty/technicke-listy/tl-isover-topsil-en.pdf



Declaration of Performance

www.isover.cz/dokumenty/prohlaseni-o-vlastnostech/isover-topsil-eng.pdf

References





ETICS



Isover

TF Profi

$\lambda_D = 0.035 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$

Density: 80-150 kg/m³

Tensile strength TR 10 kPa



PLATES, LONGITUDINAL FIBRE

Isover TF Profi longitudinal fibre facade insulation boards are suitable for external contact insulation systems where they are bonded and mechanically anchored to a sufficiently cohesive and solid wall substrate. They have excellent thermal insulation properties $\lambda_D = 0.035 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$. The material complies with the requirements for ETICS according to EN 13500, ETAG 004 as well as the requirements of Quality Class A according to CZB. It is supplied on pallets.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)
30	1000 × 600	4.20	0.126	100.8	0.85
40	1000 × 600	3.60	0.144	72.0	1.10
50	1000 × 600	3.00	0.150	60.0	1.40
60	1000 × 600	3.00	0.180	48.0	1.70
80	1000 × 600	1.80	0.144	36.0	2.25
100	1000 × 600	1.80	0.180	28.8	2.85
120	1000 × 600	1.80	0.216	25.2	3.40
140	1000 × 600	1.20	0.168	21.6	4.00
150	1000 × 600	1.20	0.180	21.6	4.25
160	1000 × 600	1.20	0.192	19.2	4.55
180	1000 × 600	1.20	0.216	16.8	5.10
200	1000 × 600	0.60	0.120	15.6	5.70
220	1000 × 600	0.60	0.132	13.2	6.25
240	1000 × 600	0.60	0.144	12.0	6.85
260	1000 × 600	0.60	0.156	12.0	7.40
280	1000 × 600	0.60	0.168	10.8	8.00
300	1000 × 600	0.60	0.180	9.6	8.55
320*	1000 × 600	0.60	0.192	9.6	9.10
340*	1000 × 600	0.60	0.204	9.6	9.70
350*	1000 × 600	0.60	0.210	8.4	10.00

Thicknesses of 30-60 mm are intended for lining insulation.

* Non-standard product, delivery terms on request.

Isover

TF

$\lambda_D = 0.038 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$

Density: 110-190 kg/m³

Tensile strength TR 15 kPa



PLATES, LONGITUDINAL FIBRE

Isover TF longitudinal fibre facade insulation boards are suitable for external contact insulation systems where they are bonded and mechanically anchored to a sufficiently cohesive and solid wall substrate. They have excellent thermal insulation properties $\lambda_D = 0.038 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$. The material complies with the requirements for ETICS according to EN 13500, ETAG 004 as well as the requirements of Quality Class A according to CZB. It is supplied on pallets.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)
20*	1000 × 600	6.00	0.120	132.0	0.50 NEW
30*	1000 × 600	4.20	0.126	100.8	0.75
50*	1000 × 600	3.00	0.150	60.0	1.30
60*	1000 × 600	2.40	0.144	48.0	1.55
80*	1000 × 600	1.80	0.144	36.0	2.10
100*	1000 × 600	1.20	0.120	28.8	2.60
120*	1000 × 600	1.20	0.144	24.0	3.15
140*	1000 × 600	1.20	0.168	21.6	3.65
150*	1000 × 600	1.20	0.180	19.2	3.90
160*	1000 × 600	1.20	0.192	19.2	4.20
180*	1000 × 600	0.60	0.108	16.8	4.70
200*	1000 × 600	0.60	0.120	15.6	5.25
220*	1000 × 600	0.60	0.132	13.2	5.75
240*	1000 × 600	0.60	0.144	12.0	6.30
260*	1000 × 600	0.60	0.156	12.0	6.80

* Non-standard product, delivery terms on request. Thicknesses of 20-60 mm are intended for lining insulation.

Need to find out more?



Technical data sheet Isover TF
www.isover.cz/dokumenty/technicke-listy/technical-data-sheet-isover-tf-en.pdf



Declaration of Performance
www.isover.cz/dokumenty/prohlaseni-o-vlastnostech/isover-tf-dop-en.pdf

Isover

TF Prim

$$\lambda_D = 0.035 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$

Density: 80-115 kg/m³

Tensile strength TR 10 kPa



FACADE SLABS

Facade slabs with longitudinal fibres are suitable for external thermal insulation composite systems (ETICS), where they are glued and mechanically bonded to a sufficiently coherent and sound wall surface.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
50*	1000 × 600	3.00	0.150	60.0	1.40
60*	1000 × 600	3.00	0.180	48.0	1.70
80*	1000 × 600	1.80	0.144	36.0	2.25
100*	1000 × 600	1.80	0.180	28.8	2.85
120*	1000 × 600	1.80	0.216	25.2	3.40
140*	1000 × 600	1.20	0.168	21.6	4.00
150*	1000 × 600	1.20	0.180	21.6	4.25
160*	1000 × 600	1.20	0.192	19.2	4.55
180*	1000 × 600	1.20	0.216	16.8	5.10
200*	1000 × 600	1.20	0.240	14.4	5.70
220*	1000 × 600	0.60	0.132	13.2	6.25
240*	1000 × 600	0.60	0.144	12.0	6.85
250*	1000 × 600	0.60	0.150	12.0	7.10
260*	1000 × 600	0.60	0.156	12.0	7.40
280*	1000 × 600	0.60	0.168	10.8	8.00
300*	1000 × 600	0.60	0.180	9.6	8.55

* Delivery must be consulted with the manufacturer.

Isover

TF Thermo

$$\lambda_D = 0.035 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$

Density: 80-115 kg/m³

Tensile strength TR 7.5 kPa



FACADE SLABS

Facade slabs with longitudinal fibre are suitable for external thermal insulation composite systems (ETICS), where they are glued and mechanically bonded to a sufficiently coherent and sound wall surface.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
50*	1000 × 600	3.00	0.150	60.0	1.40
60*	1000 × 600	3.00	0.180	48.0	1.70
80*	1000 × 600	1.80	0.144	36.0	2.25
100*	1000 × 600	1.80	0.180	28.8	2.85
120*	1000 × 600	1.80	0.216	25.2	3.40
140*	1000 × 600	1.20	0.168	21.6	4.00
150*	1000 × 600	1.20	0.180	21.6	4.25
160*	1000 × 600	1.20	0.192	19.2	4.55
180*	1000 × 600	1.20	0.216	16.8	5.10
200*	1000 × 600	1.20	0.240	14.4	5.70
220*	1000 × 600	0.60	0.132	13.2	6.25
240*	1000 × 600	0.60	0.144	12.0	6.85
250*	1000 × 600	0.60	0.150	12.0	6.25
260*	1000 × 600	0.60	0.156	12.0	7.40
280*	1000 × 600	0.60	0.168	10.8	8.00
300*	1000 × 600	0.60	0.180	9.6	8.55

* Delivery must be consulted with the manufacturer.

Isover

Façade plugs from mineral wool

$$\lambda_D = 0.035 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$



MINERAL FAÇADE PLUGS

Mineral façade plugs are used in the flush mounting of dowels to break the thermal and acoustic bridge from the metal dowel mandrel, which is usually used when insulating the façade with mineral insulation boards. They are made by cutting them out of mineral fibre façade boards. They have a circular shape and a longitudinal orientation of the fibres. The advantages of flush mounting of dowels with overlapping mineral wool façade plugs are mainly the elimination of thermal bridges and the risk of the dowel being drawn through the façade.

Diameter (mm)	Thickness (mm)	Packaging (pcs/box)
65	15	200
70*	15	200

Isover

Top V

$\lambda_D = 0.040 \text{ (W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$

Density: 65 kg/m³

Tensile strength TR 30 kPa



Isover

Top V Final

$\lambda_D = 0.040 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$

Density: 65 kg/m³

Tensile strength TR 30 kPa



Isover

NF 333

$\lambda_D = 0.040 \text{ (W} \cdot \text{m}^{-1} \cdot \text{K}^{-1})$

Density: 80-90 kg/m³



MINERAL WOOL WITH PERPENDICULAR FIBRES

Facade mineral insulation with perpendicular fibre with bevelled edges on the perimeter on the face of the board, designed for insulation of interior ceilings and walls. The insulation is bonded full-face and does not require additional anchoring. It can be left uncoated or sprayed on afterwards. Supplied on pallets (bales on a pallet).

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
50*	1000 × 333	4.00	0.20	64.00	1.25
60*	1000 × 333	2.66	0.16	53.20	1.50
80*	1000 × 333	2.00	0.16	40.00	2.00
100*	1000 × 333	2.00	0.20	32.00	2.50
120*	1000 × 333	1.33	0.16	26.60	3.00
140*	1000 × 333	1.00	0.14	24.00	3.50
150*	1000 × 333	1.33	0.20	21.28	3.75
160*	1000 × 333	1.00	0.16	20.00	4.00
180*	1000 × 333	1.00	0.18	20.00	4.50
200*	1000 × 333	1.00	0.20	16.00	5.00

* Non-standard product, delivery terms on request.

MINERAL WOOL WITH PERPENDICULAR FIBRES

Facade mineral insulation with perpendicular fibre with final spraying and bevelled edges on the perimeter on the face of the board, designed for insulation of interior ceilings and walls. The insulation is bonded full-face and does not require additional anchoring. The larger size of 1200 × 333 mm allows for up to 50% faster application than the 1000 × 200 mm slat. The possible coating options are white and concrete grey. Supplied on pallets.

Thickness (mm)	Dimensions (mm)	Packaging (pcs)	Transport volume (m ³)	Per pallet (m ²)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
50*	1200 × 333	120	2.400	48	1.25
60*	1200 × 333	99	2.376	39.6	1.50
80*	1200 × 333	75	2.400	30	2.00
100*	1200 × 333	60	2.400	24	2.50
120*	1200 × 333	48	2.304	19.2	3.00
140*	1200 × 333	42	2.352	16.8	3.50
150*	1200 × 333	39	2.340	15.6	3.75
160*	1200 × 333	36	2.304	14.4	4.00
180*	1200 × 333	33	2.376	13.2	4.50
200*	1200 × 333	30	2.400	12	5.00

* Non-standard product, delivery terms on request.

MINERAL WOOL WITH PERPENDICULAR FIBRES

Facade insulation boards with perpendicular fibre Isover NF 333 are suitable for external contact insulation systems, where they are glued on a sufficiently flat and load-bearing substrate. The board size of 1000 × 333 mm allows for up to 50% faster application than conventional slats. Perpendicular fibre boards have the advantage of significantly higher tensile strength, which allows them to be used, among other things, for the insulation of ceilings and facades with heavy cladding. Another advantage is their ability to adapt to rounded surfaces, the possibility of seamless surface grinding and also their lower weight - better handling on site. The material complies with the requirements for ETICS according to EN 13500, ETAG 004 as well as the requirements of Quality Class A according to CZB. Supplied on pallets (bales on EPS liners). Thickness 260-300 mm only slabs on pallets.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
30	1200 × 333	8.00	0.240	95.99	0.75
40	1200 × 333	6.00	0.240	71.99	1.00
50	1200 × 333	4.80	0.240	57.59	1.25
60	1200 × 333	3.20	0.192	48.00	1.50
80	1200 × 333	2.40	0.192	36.00	2.00
100	1200 × 333	2.40	0.240	28.80	2.50
120	1200 × 333	1.60	0.192	24.00	3.00
140	1200 × 333	1.20	0.168	21.60	3.50
150	1200 × 333	1.60	0.240	19.20	3.75
160	1200 × 333	1.20	0.192	18.00	4.00
180	1200 × 333	1.20	0.216	18.00	4.50
200	1200 × 333	1.20	0.240	14.40	5.00
220*	1200 × 333	0.80	0.176	14.40	5.50
240*	1200 × 333	0.80	0.192	12.00	6.00
260*	1200 × 333	0.80	0.208	12.00	6.50
280*	1200 × 333	0.40	0.112	10.80	7.00
300*	1200 × 333	0.80	0.240	10.66	7.50

It is delivered on pallets (bales on a pallet).

* Non-standard product, delivery terms on request.

** Delivery of material in thicknesses of 260-300 mm - only loose boards on a pallet, packaged in PE foil.

Isover

Twinner

$$\lambda_D = 0.032-0.033^{**} \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$$

Density: 25-50 kg/m³



COMBINED INSULATOR

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
120*	1000 × 500	2.00	0.240	3.60
140*	1000 × 500	1.50	0.210	4.20
150*	1000 × 500	1.50	0.225	4.50
160*	1000 × 500	1.50	0.240	4.80
180*	1000 × 500	1.00	0.180	5.45
200*	1000 × 500	1.00	0.200	6.05
220*	1000 × 500	1.00	0.220	6.85
240*	1000 × 500	1.00	0.240	7.50
260*	1000 × 500	0.50	0.130	8.10
280*	1000 × 500	0.50	0.140	8.75
300*	1000 × 500	0.50	0.150	9.35

* It is necessary to consult with the producer for the terms of delivery.

** Coefficient $\lambda_D = 0.033$ up to 200 mm in thickness, over 200 mm $\lambda_D = 0.032$. Minimum delivery quantity 10 m³.

Isover

MW Lamela Twinner



FOR FOUNDATION AND CORNER PLATES

To ensure easier logistics, we replace the foundation and corner boards with a solution where only the base boards are used and these are glued on the sides with slats of facade mineral wool. These slats, 30 mm thick and 1000 mm long, are always available in widths according to the thickness of the Twinner boards. Additional slats for Twinner boards can be ordered together with the basic Twinner boards. The slats are glued to the bottom or side edges of the Twinner boards to ensure fire resistance in such a way that no part of the EPS of the Twinner boards is exposed before the reinforcement layer is applied (the EPS must be completely sealed on the visible side with 30 mm thick facade wool before reinforcement). PUR foam ETICS BOND from SOUDAL, or similar foam approved for use in ETICS, can be used to bond these slats to the Twinner boards. Alternatively, the slats can be glued directly with a cementitious facade adhesive (e.g. webertmel 700, webertherm klasik etc.).

Thickness (mm)	Dimensions (mm)
120*	1000 × 30
140*	1000 × 30
150*	1000 × 30
160*	1000 × 30
180*	1000 × 30
200*	1000 × 30
220*	1000 × 30
240*	1000 × 30
260*	1000 × 30
280*	1000 × 30
300*	1000 × 30

* It is necessary to consult with the producer for the terms of delivery.

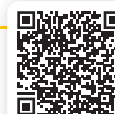
Need to find out more?



More about the product Isover Twinner
www.isover.cz/produkty/isover-twinner-zakladni-desky



Sample application of the product
www.youtube.com/user/isovercz



More about the product Isover MW Lamela Twinner
www.isover.cz/produkty/isover-mw-lamela-twinner



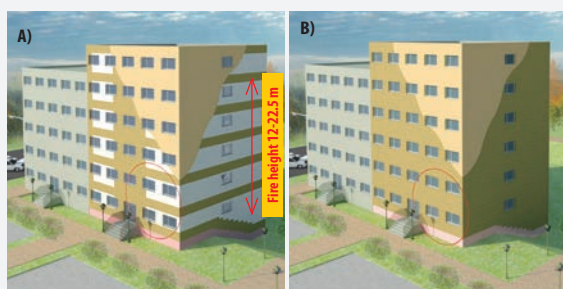
Isover Twinner

New generation thermal insulation





Benefits

- Class of reaction to fire of the individual insulator and the whole system B-s1, d0.
- Excellent insulating properties ($\lambda_D = 0.032\text{--}0.033\text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$).
- Meets the requirements of EN 73 0810:2016 (without MW dividing strips, etc.) including tests according to ISO 13785-1 and ISO 13785-2.
- Fire-sealed insulation up to 300 mm thick i.e. up to 150 MJ/m².
- Easy application (minimum weight).
- Excellent mechanical properties.
- Common insulation thicknesses up to 300 mm (also suitable for passive houses).
- Possibility of application in direct sunlight (installation possible from walkways, no shading required as with grey EPS).
- Increased fire safety already during installation of the insulation.

Examples of insulation of buildings with fire height 12-22.5 m



- A) Standard design by alternating EPS thermal insulation with 900-mm-wide strips of mineral insulation
- B) Simplified solution using Isover Twinner combined insulation

	Mineral wool		Isover Twinner
	Façade polystyrene		Plinth polystyrene

Important information

Twiner insulation meets the requirements of ČSN 73 0810:2016 including fire tests according to ISO 13785-1 (100 kW, 30 minutes) and ISO 13785-2 (3MW, 30 minutes).



Technical specification

Twiner is a sandwich thermal and acoustic insulation board for ETICS insulation systems. It utilises the best properties of long-proven insulants, i.e. in particular graphite, Isover EPS Greywall with increased insulating effect and the best-performing Isover TF Profi fibreboard. Newly added to the existing advantages are further advantageous features, especially in terms of weight reduction, simplified application, improved acoustics and post-fire safety.

Application

The Isover Twinner insulation system is advantageous for use in buildings with a fire height of 12-22.5 m. This system fully replaces the otherwise necessary system of insulation with fire belts, i.e. a combination of EPS and mineral wool. Isover Twinner insulation boards are supplied exclusively as part of complete insulation systems. The certified insulation system with Isover Twinner meets the requirements of Articles 3.1.3.3 – 3.1.3.8 of ČSN 73 0810:2016 without complicated alternation with MW strips.

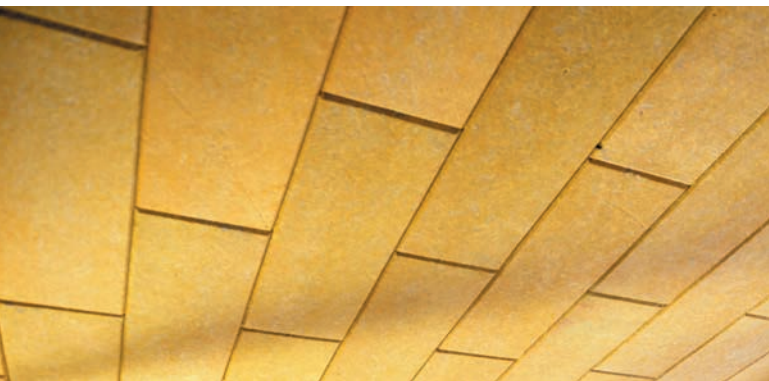


Isover Top V and Isover Top V Final

Effective insulation of garages and basements

Features

- Insulation boards made of basalt mineral wool, which are first processed on the production line into the shape of slats and then the edges are adjusted around the perimeter on the face of the board by bevelling by 20 mm at an angle of 45 degrees.
- The fibres are hydrophobised over their entire surface and have a predominantly perpendicular orientation to the plane of the wall. In the case of Isover Top V Final, a high-opacity white or grey spray is then applied to the face of the board.
- Thanks to the bevelled edge, a spatial bossing effect is created on the insulated footprint which also hides minor irregularities.
- Further surface treatment is only necessary in the case of higher architectural requirements.
- An additional coat of façade or interior paint can be applied over the existing coating.



Isover Top V – insulation supplied without coating. This allows the ceiling to be left in the natural colour of the insulation or the surface can be sprayed afterwards.



Isover Top V Final – the insulation is already supplied with prespray. The white or grey paint that is supplied is already highly opaque from the factory and therefore no surface treatment is necessary.

TR
30
kPa

λ_D
0.040
 $W \cdot m^{-1} \cdot K^{-1}$



Usage

Isover Top V and Isover Top V Final are ideally suited for garages under apartment buildings or in technical rooms or cellars, i.e. generally in basement spaces.

- + 1200 × 333 plate size allows up to 50% faster application than conventional slats
- + surface coating with high colour opacity
- + use without the need for subsequent surface treatment
- + creation of a spatial bossing effect
- + high tensile strength (can be bonded to ceilings)
- + very good thermal insulation properties
- + high fire resistance
- + excellent acoustic properties in terms of sound absorption
- + low diffusion resistance – easy permeability to water vapour
- + ecological and hygienic safety
- + water repellency – the material is hydrophobised

- the need for a level and coherent substrate
- cannot be used outdoors
- cannot be used on a heterogeneous substrate

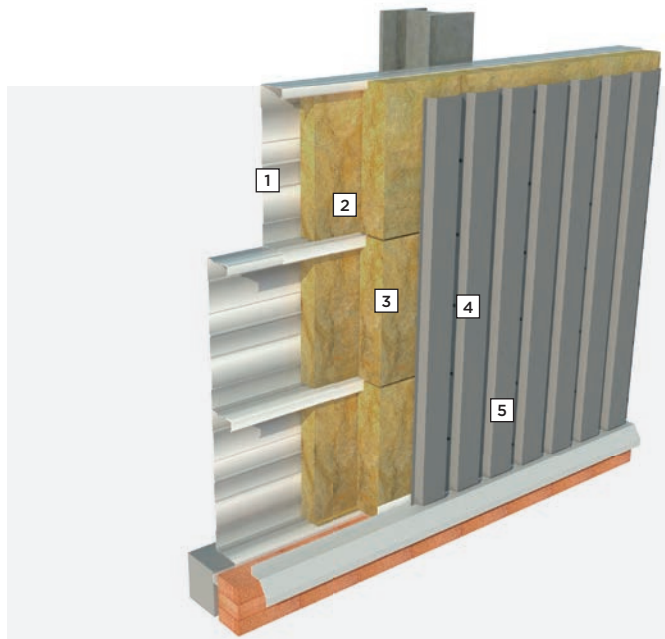
Isover Cladisol

System wall for insulation of industrial buildings and halls

Main benefits of the system

- Best fire protection properties in its category
- Very good thermal insulation properties
- Easy and quick installation
- High fire resistance
- Excellent acoustic properties
- Ecological and hygienic

- 1 supporting cassette C profile – galvanised steel sheet metal, composite height 600 mm
- 2 Isover Fassil insulation – dimensions 1200 × 600 mm
- 3 Isover Fassil insulation – 1200 × 610 mm with groove
- 4 spacing screws – self-drilling spacing screws for pre-set installation of trapezoidal sheets and with a spacing of 40 mm or 80 mm
- 5 cladding – trapezoidal galvanised steel sheet



Characteristics of the product

The Isover Cladisol system is a system solution for insulated lightweight wall constructions with C-profile steel cassettes. The system is mainly used for prefabricated hall buildings. The system consists of a C-bearing steel cassette filled with fire-resistant Isover Fassil panels with a mounting groove and a covering profiled trapezoidal sheet.

Isover Fassil preinsulation with a bulk density $\geq 50 \text{ kg}\cdot\text{m}^{-3}$ and $\lambda_0 = 0.034 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$ ensures continuous thermal insulation without significant thermal, acoustic and fire bridges. Isover CLADISOL has been verified by independent tests as meeting the highest demands in terms of the thermal, acoustic and fire protection requirements of ventilated façade systems.

Fire and acoustic tests

- Measured fire resistance up to EI 120/EW 120
- Measured acoustic properties – weighted airtightness up to 55 dB

Need to find out more?



System datasheet

www.isover.cz/dokumenty/systemove-technicke-listy/systmov-technik-list-isover-cladisol-cz.pdf



Catalogue – Isover Cladisol

www.isover.cz/dokumenty/katalogy-prospekty/isover-cladisol-9-2019.pdf



FLOORS



Isover

N

$$\lambda_D = 0.035 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$

Density: 100-110 kg/m³



HEAVY FLOATING FLOORS

Isover N boards are designed to improve the step and air tightness of heavy floating floors with reinforced concrete slabs. They have the best acoustic performance of any basalt floor slab. They are suitable for living rooms, especially in houses where the payload does not exceed 2 kN·m⁻² with a maximum layer compression of 5 mm (CP5). Supplied on pallets (bales on pallet). Higher thicknesses can be supplied by arrangement with the manufacturer.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)	Dynamic rigidity MN·m ⁻³	Footstep dampening ΔLw (dB)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
20	1200 × 600	11.52	0.23	161.28	26	24	0.55
25	1200 × 600	8.64	0.22	138.24	23	27	0.70
30	1200 × 600	7.20	0.22	115.20	19	28	0.85
40	1200 × 600	5.76	0.23	80.64	10	34	1.10
50	1200 × 600	4.32	0.22	69.12	8	35	1.40

The weighted reduction of the crotch sound level ΔLw was calculated on a 120-mm-thick concrete monolithic ceiling with a 50-mm-thick concrete screed spreader plate.

* Thicknesses greater than 50 mm available on request, non-standard product, delivery terms on request.

Isover

T-N

$$\lambda_D = 0.036 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$

Density: 125-140 kg/m³



HEAVY FLOATING FLOORS

Isover T-N boards are designed to improve the step and air tightness of heavy floating floors with concrete reinforced slabs or anhydrite. They are suitable for areas with an increased payload of up to 4 kN·m⁻² (apartment buildings, offices, classrooms, lecture halls, libraries) at a maximum layer compression of 3 mm (CP3). Supplied on pallets (bales on pallet).

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)	Dynamic rigidity MN·m ⁻³	Footstep dampening ΔLw (dB)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
25	1200 × 600	5.76	0.14	69.12	25	24	0.65
30	1200 × 600	5.04	0.15	60.48	21	25	0.80
40	1200 × 600	4.32	0.17	43.20	20	26	1.10
50	1200 × 600	2.88	0.14	34.56	15	28	1.35

The weighted reduction of the footfall sound level ΔLw was calculated on a 120-mm-thick concrete monolithic ceiling with a 40-mm-thick anhydrite spreader plate.

Isover

T-P

$$\lambda_D = 0.037 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$

Density: 145-155 kg/m³



LIGHT AND HEAVY FLOATING FLOORS

Isover T-P precision tiles are suitable for improving the acoustic properties of light and heavy floating floors. They are designed for all types of residential and office buildings with a payload of up to 5 kN·m⁻² (i.e. also warehouses, archives, etc.). The maximum compression of Isover T-P is 2 mm (CP2). It is supplied on pallets (pallet packs).

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)	Dynamic rigidity MN·m ⁻³	Footstep dampening ΔLw (dB)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
20	1200 × 600	7.20	0.14	86.40	31	-	0.50
25	1200 × 600	5.76	0.14	69.12	27	22	0.65
30	1200 × 600	5.04	0.15	60.48	26	-	0.80
40	1200 × 600	4.32	0.17	43.20	21	26	1.05
50*	1200 × 600	2.88	0.14	34.56	21	-	1.35

The weighted reduction of the step sound level ΔLw was calculated on a concrete monolithic ceiling with a thickness of 120 mm and an OSB spreader board of 22 mm. * Non-standard product, delivery conditions on request.

Isover

N/PP

$$\lambda_D = 0.035 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$$



FLOOR TAPES

In addition to creating the expansion joint profile, N/PP floor tapes provide a flexible separation of the floor structure from the vertical walls and floor penetrations. They limit the lateral transmission of footfall noise and are an integral part of the floating floor design.

Height (mm)	Length (mm)	Thickness (mm)	Packaging (pcs)
50	1000	15	20
100	1000	15	20



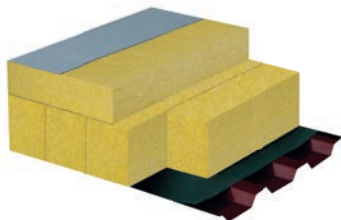
FLAT ROOFS



Isover

TOP ROOF

$$\lambda_D = 0.033 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$$



A NEW GENERATION OF MW INSULATOR SYSTEMS

The TOP ROOF sandwich flat roof insulation system is an economical version of a two-layer flat roof thermal insulation with fire resistance up to REI 60 DP1. The system uses an Isov S top board with a compressive strength of 70 kPa and Isov LAM base boards with strengths of 70, 50 and 30 kPa.

	TOP ROOF 60M-70	TOP ROOF 60M-50	TOP ROOF 60M-30
Compressive strength of top board (kPa)	70	70	70
Compressive strength of Isov LAM base board (kPa)	70	50	30
Dimensions of top board (mm)	2000 × 1200	2000 × 1200	2000 × 1200
Dimensions of base board (mm)	2000 × 360	2000 × 360	2000 × 360
Thickness (mm)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)
160	4.00	4.05	4.10
180	4.45	4.50	4.60
200	4.95	5.00	5.10
210	5.15	5.25	5.35
220	5.40	5.50	5.60
230	5.65	5.75	5.85
240	5.90	6.00	6.10
260	6.35	6.45	6.60
320	7.80	7.95	8.10
360	8.75	8.90	9.10
420	10.15	10.40	10.60

Isover

LAM

Density:

LAM 30 65-85 kg/m³

LAM 50 70-90 kg/m³

LAM 70 90-110 kg/m³



LARGE-FORMAT SLATS FOR BOTTOM LAYERS

A new generation of MW insulator systems for the thermal insulation of flat roofs made of perpendicularly-oriented mineral fibres with a high spring effect in the lower layer and a high-strength top layer of longitudinal fibre products. Manufacturable in thicknesses from 16 cm to 42 cm (in 1-cm increments). Supplied on pallets, wrapped in PE film. Further information on packaging is available in the TL of each material.

	Isover LAM 70	Isover LAM 50	Isover LAM 30
λ_D (W·m ⁻¹ ·K ⁻¹)	0.042	0.041	0.040
Compressive strength at 10% deformation (kPa)	70	50	30
Dimensions (mm)	2000 × 360 (400)	2000 × 360 (400)	2000 × 360 (400)
SVT	8809	8810	8801
Thickness (mm)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)
100	2.35	2.40	2.50
110	2.60	2.65	2.75
120	2.85	2.90	3.00
130	3.05	3.15	3.25
140	3.30	3.40	3.50
150	3.55	3.65	3.75
160	3.80	3.90	4.00
180	4.25	4.25	4.50
220	5.20	5.35	5.50
240	5.70	5.85	6.00
300	7.10	7.30	7.50

Isover

XH

$$\lambda_D = 0.039 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$$

Density: 180-210 kg/m³



UPPER TYPES OF FLAT ROOFS WITH A CAPACITY OF 100 kPa

Isover XH boards are suitable as the top layer of flat roof structures with the highest requirements for pressure loads and frequent walking. Supplied only in complete pallets, wrapped in PE film.

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
50	2000 × 1200	60.0	3.00	1.25
60	2000 × 1200	50.4	3.02	1.50
80	2000 × 1200	38.4	3.07	2.05
100	2000 × 1200	31.2	3.12	2.55

Isover

R

$$\lambda_D = 0.036 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$$

Density: 100-142 kg/m³



THE BOTTOM LAYER OF THE FLAT ROOF

Isover R boards are designed for flat roof systems as a bottom layer. They are installed on top of the vapour barrier or the supporting structure or on the fall-off system. The latter can be made of Isover SD fallout boards and Isover DK double-floor wedges. It is supplied only in complete pallets, wrapped in PE film.

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
40	2000 × 1200	72.0	2.880	1.10
50	2000 × 1200	60.0	3.000	1.35
60	2000 × 1200	50.4	3.024	1.65
80	2000 × 1200	38.4	3.072	2.20
100	2000 × 1200	31.2	3.120	2.75
120	2000 × 1200	26.4	3.168	3.30
140	2000 × 1200	21.6	2.688	3.85
160	2000 × 1200	19.2	3.072	4.40

Isover

S

$$\lambda_D = 0.037 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1} \text{ (30-80 mm)}$$

$$\lambda_D = 0.039 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1} \text{ (100-160 mm)}$$

Density: 147-175kg/m³

UPPER TYPES OF FLAT ROOFS WITH A CAPACITY OF 70 kPa

Isover S is suitable as the top layer of flat roofs. It is suitable in combination with Isover T, R, P, LAM 70, LAM 50 and LAM 30 boards, which are laid as the bottom layer, with Isover SD and Isover DK slope systems and with Isover AK attic wedges, which help the transition of the waterproofing from horizontal to vertical. The waterproofing layer can be directly applied to Isover S boards (by gluing, mechanical anchoring or by means of a weighting aid). It is only supplied in complete pallets, wrapped in PE film.

Isover

T

$$\lambda_D = 0.037 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$$

Density: 125-160 kg/m³



BOTTOM LAYER OF A FLAT ROOF WITH A PRESSURE OF 50 kPa

Isover T boards are designed for thermal, acoustic and fire insulation of single-skin flat roofs. They are suitable as a bottom layer under Isover S or Isover S-i boards. We recommend the use of the Isover SD and Isover DK gradient system for the gradient. Detailed mechanical parameters, including local extrusion strength, are given in the product datasheet. In both cases, we recommend combining with Isover AK attic wedges. Supplied only in complete pallets, wrapped in PE film.

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)	
				Isover S	Isover T
30	2000 × 1200	100.8	3.02	0.80	0.80
40	2000 × 1200	72.0	2.88	1.05	1.05
50	2000 × 1200	60.0	3.00	1.35	1.35
60	2000 × 1200	50.4	3.02	1.60	1.60
70	2000 × 1200	43.2	3.02	1.85	-
80	2000 × 1200	38.4	3.07	2.15	2.15
100	2000 × 1200	31.2	3.12	2.55	2.70
120	2000 × 1200	26.4	3.17	3.05	3.20
140	2000 × 1200	21.6	3.02	3.55	3.75
160	2000 × 1200	19.2	3.07	4.10	4.30

Isover

S-i

$\lambda_D = 0.037 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$ (50-80 mm)

$\lambda_D = 0.039 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$ (100-160 mm)

Density: 140-160 kg/m³



UPPER TYPES OF FLAT ROOFS WITH A CAPACITY OF 70 kPa

Isover S-i is suitable as the top layer of flat roofs. It is suitable in combination with Isover T, R, P, LAM 70, LAM 50 and LAM 30 boards, which are laid as the bottom layer, with Isover SD and Isover DK slope systems and with Isover AK attic wedges, which help the transition of the waterproofing from horizontal to vertical. The waterproofing layer can be directly applied to Isover S boards (by gluing, mechanical anchoring or by means of a weighting aid). It is only supplied in complete pallets, wrapped in PE film.

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)
30	2000 × 1200	100.8	3.024	0.80
40	2000 × 1200	72.0	2.880	1.05
50	2000 × 1200	60.0	3.000	1.35
60	2000 × 1200	50.4	3.024	1.60
70	2000 × 1200	43.2	3.024	1.85
80	2000 × 1200	38.4	3.070	2.15
100	2000 × 1200	31.2	3.120	2.55
120	2000 × 1200	26.4	3.168	3.05
140	2000 × 1200	21.6	3.024	3.55
160	2000 × 1200	19.2	3.072	4.10

Isover

T-i

$\lambda_D = 0.037 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$

Density: 110-150 kg/m³



BOTTOM LAYER OF A FLAT ROOF WITH A PRESSURE OF 50 kPa

Isover T-i boards are designed for thermal, acoustic and fire insulation of single-skin flat roofs. They are suitable as a bottom layer under Isover S or Isover S-i boards. We recommend the use of the Isover SD and Isover DK gradient system for the gradient. Detailed mechanical parameters, including local extrusion strength, are given in the product datasheet. In both cases, we recommend combining with Isover AK attic wedges. Supplied only in complete pallets, wrapped in PE film.

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)
30	2000 × 1200	100.8	3.024	0.80
40	2000 × 1200	72.0	2.880	1.05
50	2000 × 1200	60.0	3.000	1.35
60	2000 × 1200	50.4	3.024	1.60
70	2000 × 1200	43.2	3.024	1.85
80	2000 × 1200	38.4	3.070	2.15
100	2000 × 1200	31.2	3.120	2.70
120	2000 × 1200	26.4	3.168	3.20
140	2000 × 1200	21.6	3.024	3.75
160	2000 × 1200	19.2	3.072	4.30

Isover

SH

$\lambda_D = 0.039 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$

Density: 160-190 kg/m³



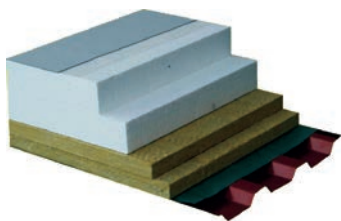
UPPER TYPES OF FLAT ROOFS WITH A CAPACITY OF 80 kPa

Isover SH boards are intended primarily as the top layer of the thermal insulation layer of flat roofs with above-standard requirements for compressive strength, point load and safety, especially for roofs with higher operational loads, such as terraces or green roofs. They ensure high-quality load distribution with minimal deformation of the waterproofing, together with high resistance to trampling during installation or maintenance. A suitable combination is with Isover T, Isover R, Isover LAM 70, 50 and 30 boards, which are laid as the bottom layer, with the Isover SD and Isover DK slope system, as well as with Isover AK attic wedges, which help the transition of the waterproofing from horizontal to vertical direction. A waterproofing layer is usually applied directly to Isover SH boards, most often anchored or weighted.

Thickness (mm)	Dimensions (mm)	Transport volume (m ³)	Per pallet (m ²)	Declared thermal resistance R_D (m ² ·K·W ⁻¹)
60	2000 × 1200	3.02	50.4	1.50
80	2000 × 1200	3.07	38.4	2.05
100	2000 × 1200	3.12	31.2	2.55
120	2000 × 1200	3.17	26.4	3.05

SG

COMBI ROOF



COMBINED INSULATOR MW + EPS

SG COMBI ROOF 30M is a system of insulation of light flat roofs with a combined insulator for fire resistance REI30. It consists of overlapping mineral insulation boards (MW) with a thickness of 2×40 mm and expanded polystyrene (EPS) with a compressive strength of at least 100 kPa. Other thicknesses of SG COMBI ROOF 30M on request. This combined MW + EPS insulator is also used in the PROTECTROOF® lightweight fire-resistant roof system. It is supplied on pallets, wrapped in PE film. The SG COMBI ROOF 30M-i version uses a combination of EPS with a strength of 100 and 70 kPa. The SG COMBI ROOF 15M version uses a 2×20 -mm-thick MW fire separation layer. However, this small thickness is very sensitive to penetration during actual installation. Dimensions EPS 2500×1000 mm – MW 1250×1000 mm.

	SG COMBI ROOF 30M (E100)	SG COMBI ROOF 30M (E100/E150)	SG COMBI ROOF 15M
Thickness (mm)	Declared thermal resistance R_D ($m^2 \cdot K \cdot W^{-1}$)	Declared thermal resistance R_D ($m^2 \cdot K \cdot W^{-1}$)	Declared thermal resistance R_D ($m^2 \cdot K \cdot W^{-1}$)
140	3.80	3.80	3.75
160	4.35	4.30	4.25
180	4.90	4.80	4.75
200	5.45	5.30	5.25
220	5.95	5.85	5.80
240	6.50	6.35	6.30
260	7.05	6.85	6.80
280	7.60	7.35	7.30
300	8.15	7.90	7.85

Isover

DK



DOUBLE-GRADIENT WEDGE

The DK assembly is designed especially for efficient and simple drainage of the roof line to the adjacent drains. It is most often fitted to attics, central gutters or protruding obstacles on flat roofs. It is usually used in combination with Isover SD fall-off boards.

Wedge length (mm)
5000
6000
7000
8000
9000
10,000

Isover DK consists of modules "A" - "F" + backing plates. Thanks to the repetition of the modules and their overlapping, a wedge of any length can be created. Isover DK is ALWAYS supplied in full metres. The standard longitudinal slope of Isover DK is 2%; the standard transverse slope of Isover DK is 8%! Individual gradients can be created at an additional cost.

Isover double-gradient wedge. Dimensions and thicknesses of the wedges according to the individual project, which we will prepare for you free of charge, including a quotation.

Isover

SD, AK, TRV



ADDITIONAL CUT PRODUCTS FOR FLAT ROOFS

Falling plates, gussets, attic gussets and acoustic infills of trapezoidal sheets. Sizes according to project requirements. Mineral fibre or polystyrene foam backfill system, usually at a 2% slope, but up to a 15% slope can be supplied. Further details to be supplied by the manufacturer.





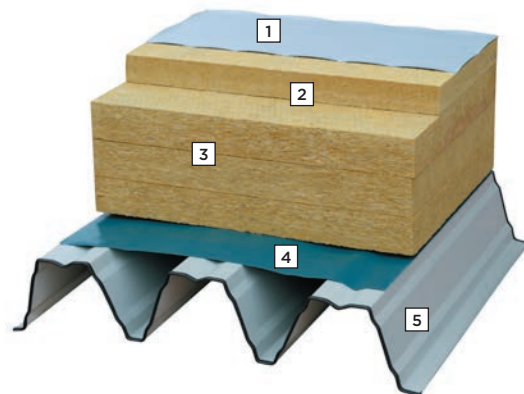
LIGHTWEIGHT FIRE-RESISTANT ROOFS WITH **MINERAL INSULATION**

with fire resistance REI15 - REI 90

Basic composition

- | | |
|---|---|
| <p>1 Waterproofing layer arrangement</p> <p>2 Top layer Isover MW (Isover S, XH)</p> <p>3 Bottom layer Isover MW (Isover T,R,P, LAM)</p> | <p>4 Water vapour barrier</p> <p>5 Supporting holorib</p> |
|---|---|

Flat roofs with mineral insulation are most often designed as single-skinned control roofs with a classical sequence of layers. Their main advantages are their absolute fireproofness, i.e. ensuring the highest degree of fire safety, and excellent acoustics. Mineral insulation is sound-absorbent, i.e. these roofs achieve both high airtightness values and, in combination with the supporting perforated TR sheets, excellent sound absorption.



Basic requirements for Isover lightweight fire-resistant roofs with fire resistance ratings REI 15, REI 30, REI 45 and REI 60

Trapezoidal sheet

- Static use of TR sheet metal according to specific fire resistance
- Minimum thickness 0.75 mm
- Sheets bolted together
- Anchoring by at least two means of anchoring in each wave or by other statically assessed means
- Standard for spans of 6000 mm and more
- for all snow areas

Vapour barrier

- Max. thickness 2 mm and calorific value 15 MJ/m² – for additional DP1 rating
- Any type – for additional assessment DP3

Mineral insulation Isover MW

- at least two layers with offset joints in both directions
- Isover T, R, LAM 70, LAM 50, LAM 30 for the bottom layer
- Isover boards XH and S for the upper layer
- Total thickness min. 80 mm (for REI 30)
- Total thickness min. 100 mm (for REI 45)
- Total thickness min. 120 mm (for REI 60)

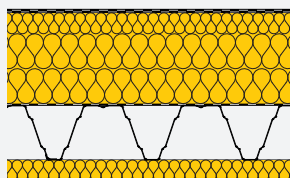
Waterproofing layers

- with B_{ROOF}(t1) and B_{ROOF}(t3) classification for DP1 evaluation

Roof slope 0-15°

Variants of MW plate combinations for the bottom and top layer and other (static,...) conditions for trapezoidal sheeting are available on request.

Isover FireProtect® - Lightweight roof sheathing with fire resistance REI 90



- Waterproofing layers (asphalt, foil)
- Top layer Isover MW (Isover S, XH)
- Lower layer Isover MW (Isover T, R, LAM)
- Vapour barrier (foil, asphalt strip)
- Supporting trapezoidal sheet
- Isover FireProtect® 150 fire protection cladding 30 mm (REI 60) or 60 mm (REI 90)

Recommended materials

Top layer



Isover
XH, S

Bottom layer
(Longitudinal fibre)



Isover
T, R

Bottom layer
(Perpendicular fibre)



Isover
LAM 70, LAM 50, LAM 30

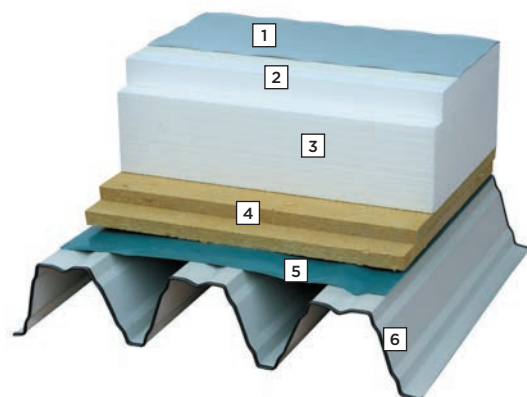
LIGHTWEIGHT FIRE-RESISTANT ROOFS

SG COMBI ROOF

with fire resistance REI 15 to REI 45

Basic composition

- | | |
|--|---|
| 1 Waterproofing layer arrangement | 4 Fire separation layer Isover MW 2x40 mm |
| 2 Top layer Isover EPS (Isover EPS 250, 200, 150, 100) | 5 Water vapour barrier |
| 3 Bottom layer Isover EPS (Isover EPS 100, 70, Grey 100) | 6 Supporting holorib |



Combined thermal insulation COMBI ROOF (EPS+MW)

SG COMBI ROOF Roof Sheathing uses the best properties of traditional and long-proven insulants for flat roofs. In the case of mineral insulation, this is primarily thermal insulation and excellent fire protection properties, while in the case of polystyrene foam, it is excellent thermal insulation properties, minimal weight and high compressive strength, including high resistance to penetration. The high strength of the upper layers (EPS 100, 150, 200, 250) ensures sufficient load-bearing capacity even when installing solar power plants and other technological equipment. Important parts of the SG COMBI ROOF roofs are the design of the trapezoidal sheet structure, the assessment of its static action in a fire situation and the solution of related details.

Fire resistance of SG COMBI ROOF lightweight roof sheathing

- SG COMBI ROOF 15M (REI 15 DP1-DP3)
- SG COMBI ROOF 30M (REI 30 DP1-DP3)
- SG COMBI ROOF 45M (REI 45 DP1-DP3)

The fire resistance tests of SG COMBI ROOF lightweight cladding were carried out according to EN 1365-2:2001. The compositions have shown excellent fire performance and the roofs with combined EPS + MW insulation provide the buildings with a fire resistance of 15, 30 and 45 minutes (REI 15, REI 30 and REI 45), depending on the specific composition. The individual systems differ both in their fire resistance and in their material composition, in particular in relation to the compressive strength and thermal conductivity coefficient of the individual materials. **Detailed specifications are available on request.**

Main advantages of SG COMBI ROOF roof sheathing:

- | | |
|--|--|
| <ul style="list-style-type: none"> + Fire resistance REI 15, REI 30 and REI 45 for large spans (typically 6 m or more). + Also suitable for assembly areas (shopping centres, etc.) + High resistance to trampling of the thermal insulation. + Variant solutions to meet diverse requirements for fire resistance, firebreak, fire prevention through | <ul style="list-style-type: none"> + Suitable for all snow areas. + Good price/performance ratio. + Reduced weight and increased compressive strength (100, 150 and 200 kPa) compared to the Celovat version. + Universal solution for waterproofing membranes and asphalt strips. |
|--|--|

Recommended materials

Top layer



Isover
EPS 250, 200, 150, 100, 70

Top layer



Isover
EPS Grey 100

Bottom layer



Isover
MW

LIGHTWEIGHT ACOUSTICALLY ABSORBENT ROOFS

ISOVER ROOF ACOUSTIC

with fire resistance REI 15 to REI 60

Basic composition

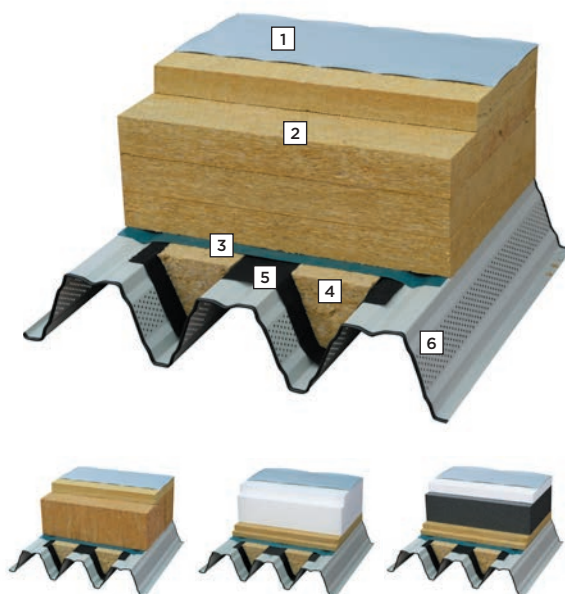
- | | |
|---------------------------------|-------------------------------------|
| 1 Waterproofing layer | 4 Isover Fassil Geotextile TR Sheet |
| 2 Isover MW, or Isover EPS + MW | 5 Filler |
| 3 Vapour barrier | 6 Supporting perforated TR sheet |

Isover ROOF ACOUSTIC is a system solution for acoustic lightweight flat roofs on load-bearing perforated trapezoidal sheets with mineral acoustic filling designed for the indoor construction of new buildings.

Main advantages of the system:

- Simplicity and efficiency of the solution
- High sound absorption (factor $\alpha_w = 0.7$)
- High mechanical resistance
- Fire resistance up to REI 60

The high mechanical resistance of the solution can be advantageously used, for example, in sports and production halls. As the main thermal insulation it is possible to use either a full-wall solution or a combination of EPS + MW. The upper part of the roof cladding no longer has any influence on the acoustic absorption, as can be seen in the table below.



Graphic scheme	Composition	Single-digit sound absorption values
	<ul style="list-style-type: none"> Waterproofing foil 1.5 mm thick Isover MW top layer 60 mm thick Isover MW lower layer 120 mm thick PE foil 0.2 mm TR sheet fillers – Isover Fassil Geotextile Perforated TR sheet 150/280/0.75 	$\alpha_w = 0.70$ (LM) NRC = 0.85 SAA = 0.85
	<ul style="list-style-type: none"> Waterproofing foil 1.5 mm thick Isover MW top layer 60 mm thick Isover MW lower layer 120 mm thick PE foil 0.2 mm Perforated TR sheet 150/280/0.75 	$\alpha_w = 0.40$ (LM) NRC = 0.70 SAA = 0.71
	<ul style="list-style-type: none"> Waterproofing foil 1.5 mm thick Isover MW top layer 60 mm thick Isover MW lower layer 120 mm thick PE foil 0.2 mm Full TR sheet 150/280/0.75 	$\alpha_w = 0.15$ NRC = 0.30 SAA = 0.28
	<ul style="list-style-type: none"> Waterproofing layer Isover EPS 100-120 mm thick Isover P 2x30 mm PE foil 0.2 mm TR sheet fillings – Isover Fassil + geotextile Perforated TR sheet 150/280/0.75 	$\alpha_w = 0.70$ (LM) NRC = 0.85 SAA = 0.86

Recommended materials



Need to know more?



Prospectus – Isover Roof Acoustic

www.isover.cz/dokumenty/isover-roof-acoustic



Hall study – Isover Roof Acoustic

www.isover.cz/dokumenty/isover-roof-acoustic-studie-haly



LIGHTWEIGHT ACOUSTIC SOFFITS WITH PERFORATED TR SHEET ISOVER ROOF ACOUSTIC CEILING

Basic composition

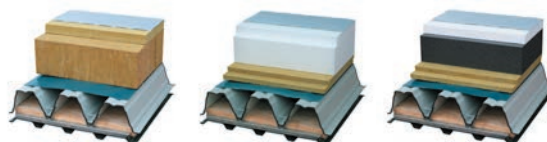
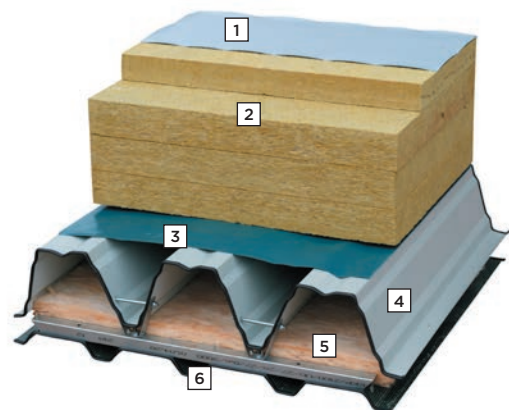
- | | |
|---------------------------------|----------------------------------|
| 1 Waterproofing layer | 3 Vapour barrier |
| 2 Isover MW, or Isover EPS + MW | 4 Supporting perforated TR sheet |

Variant A

- | |
|--|
| 5 Isover Fassil NT tl. 50 mm |
| 6 Perforated trapezoidal sheet Metal profiles SAB TR 35/207 perforation P3 |

Variant B

- | |
|--|
| 5 Isover AKUSTIC SSP 2 (laminated) tl. 50 mm |
| 6 Perforated trapezoidal sheet Metal profiles SAB TR 35/207 perforation P3 |



Isover ROOF ACOUSTIC CEILING is a system solution for the acoustic ceilings of indoor buildings, especially sports and production halls. It consists of a low perforated trapezoidal sheet with a laminated acoustic mineral board and a corresponding substructure. The solution is primarily intended for the renovation of existing halls, but can be used equally successfully in new buildings as an acoustic soffit for roof structures that do not have acoustic properties, such as pre-stressed panels or trusses.

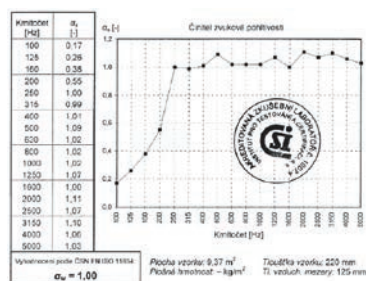
Main advantages of the system:

- Simplicity and efficiency of the solution
- High sound absorption ($\alpha_w = 1.0$)
- High mechanical resistance (can be oversized according to the thickness of the TR sheet)

Choose the robustness according to your needs

The results of the acoustic tests performed for ROOF ACOUSTIC CEILING soffits, i.e. low-wave perforated sheets by metal profiles, have confirmed excellent acoustic damping properties when combined with high-quality Isover insulations. In both the variants, i.e. with Isover Fassil and with Isover Akustic SSP2 insulation panels respectively, the highest, i.e. the best sound absorption factor value $\alpha_w = 1.00$, was achieved and the soffits were classified in the highest sound absorption class A. These excellent results, along with the other advantages of perforated soffits, allow for a very effective acoustic optimisation of existing hall structures, especially sports and production halls, as well as an elegant and economic design of new structures requiring increased sound absorption.

Option A

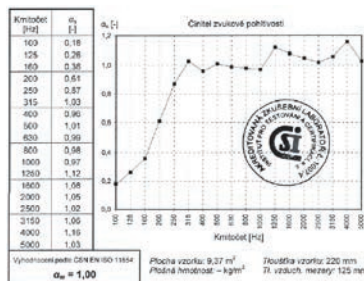


Test results according to ISO 11654:

Weighted sound absorption factor
 $\alpha_w = 1.00$

Sound absorbency class A

Option B



Test results according to ISO 11654:

Weighted sound absorption factor
 $\alpha_w = 1.00$

Sound absorbency class A

Recommended materials



Need to find out more?



Catalogue - Isover Roof Acoustic Ceiling

www.isover.cz/dokumenty/prospekt-isover-roof-acoustic-ceiling



Acoustic study of the hall - Isover Roof Acoustic Ceiling

www.isover.cz/dokumenty/akusticka-studie-haly-isover-roof-acoustic-ceiling

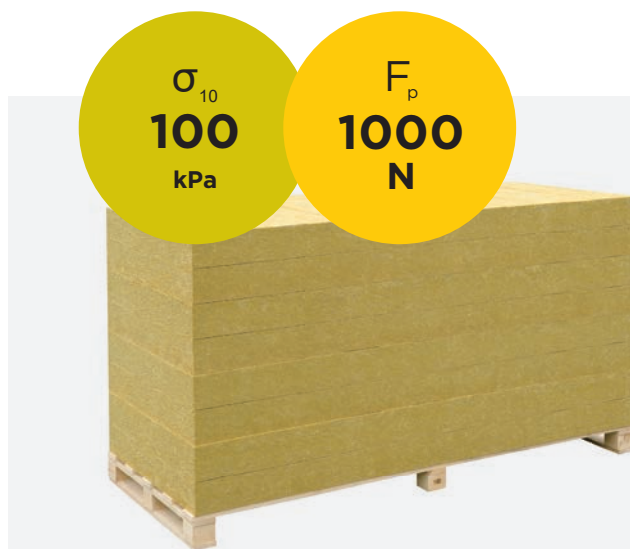


Isover XH

Top layer of a flat roof with a strength of 100 kPa

Benefits

- very high compressive strength of 100 kPa
- very high point load capacity 1000 N
- fire resistance
- very good thermal insulation performance
- excellent acoustic properties in terms of noise absorption
- low vapour resistance – good water vapour penetrability
- environmentally friendly and hygienic
- completely hydrophobic
- long lifespan
- resistant to wood-destroying pests, rodents, and insects
- easy workability – can be cut, drilled into, etc.
- dimensional stability under temperature changes



PRODUCT CHARACTERISTICS

Isover XH boards are suitable as the top layer of flat roof structures with the highest requirements for pressure loads and frequent walking. Supplied only in complete pallets, wrapped in PE film.

APPLICATION

Glass insulation strips with excellent thermal insulation properties are designed as thermal and acoustic insulation of pitched roofs, ceilings, soffits, ventilated façades, wooden buildings and other light sandwich structures. Particularly energy-efficient type of insulation, $\lambda_D = 0.032 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$.

Point load capacity F_p	1000 N
Strength at 10% compression σ_{10}	100 kPa
Coefficient of thermal conductivity λ	$0.039 \text{ W} \cdot \text{m}^{-1} \cdot \text{K}^{-1}$
Thickness	60, 80 and 100 mm



Isover XH (eXtra Hard)

Isover XH mineral wool boards are used as the top layer of the thermal insulation layer of flat roofs with the highest requirements for pressure loads and frequent use.



Technical Support – Grading

The gradient design is carried out in two steps

(see picture on the other side):

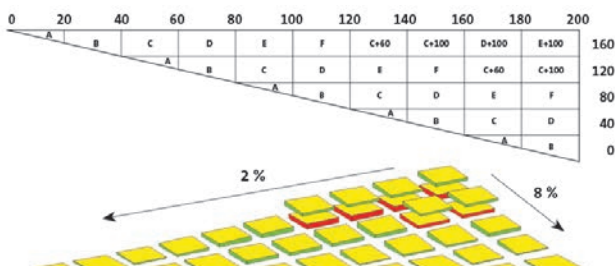
1. grading design + bill of materials (on request)
2. complete cladding plan (based on order)

For a gradient proposal you need to send:

- Layout and section of the roof and plotted positions of inlets in JPG, PDF or DWG format..
- Attic heights.
- Minimum and maximum thickness of thermal insulation.
- Minimum required roof slope.
- Existing roof pitch.
- Type of attachment of the slope layer and waterproofing.
- Type of waterproofing.
- Type of projected EPS or MW.
- Description of the underlying layers.
- Other (required dates, contact persons...).

It is recommended to physically check the position of the inlets and the height of the attics, because what is on the drawing is often not on the roof. For gutter slopes, EPS gutter wedges or two-gutter wedges made of MW Isover DK are used.

Isover DK two-pass wedges



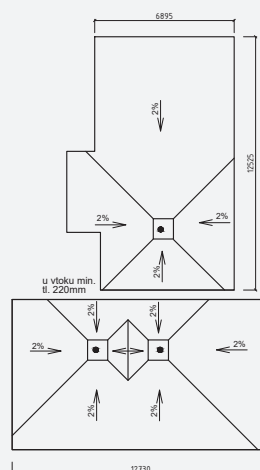
Isover DK consists of modules "A" - "F" + backing plates. Thanks to the repetition of the modules and their overlapping, a wedge of any length can be created. Isover DK is ALWAYS delivered in full metres. The standard longitudinal slope of Isover DK is 2%; the standard transverse slope of Isover DK is 8%! Individual gradients can be created at an additional cost.

Need to find out more?

Falling flat roofs with EPS or MW
www.isover.cz/dokumenty/brozury-letaky/isover-kladecske-plany.pdf



1. Design of gradients

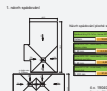


Design of flat roof pitches – 2%

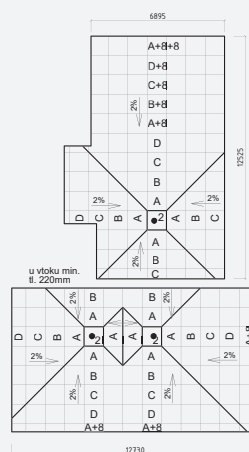
Spádové klíny 2% 1x1m - Isover EPS 200	
Celkem	12,820 m ³
Isover EPS 100 - rovné desky 1x1m	
deska u vstoku	
tl. 20 mm	0,060 m ³
Isover EPS 100 - rovné desky 1x1m	
podklady pod klíny	
tl. 80 mm	4,480 m ³
Isover EPS 100 - rovné desky 1x1m	
celoplošné	
tl. 200 mm	37,200 m ³

č.v. 190401- M8..

Zpracováno : SG Isover
 Zpracoval : Milena Skalská Rejlová
 tel. 602 115 649
 Dne : 01.04.2011
 Pro : Akce



2. Complete cladding plan



Design of flat roof pitches – 2%

Ozn.	tl.(mm)	tl2(mm)	počet (ks)	m ³
A	20	40	71	2,130
B	40	60	53	2,650
C	60	80	57	3,990
D	80	100	45	4,050
KLÍNY CELKEM			226	12,820

podklady EPS 100S (rovné desky 1x1m)
 2...deska tl. 20mm.....3m².....0,06m³
 8...podklad tl. 80mm.....56m².....4,48m³

Celoplošné EPS 100S (rovné desky 1x1m)
 tl. 200mm186m².....37,200m³

č.v. 190401- M8..

Zpracováno : SG Isover
 Zpracoval : Milena Skalská Rejlová
 tel. 602 115 649
 Dne : 01.04.2011
 Pro : Akce





GREEN SOLUTIONS



Isover Flora



HYDROACCUMULATION PLATES

They are used for extensive and semi-intensive compositions of flat and pitched roofs as a partial substrate replacement. They are light and airy, making them easier to handle and transport than substrates. They are used in green roof compositions on new buildings, but are also suitable for renovations and indoor buildings. They have a balanced ratio between hydroaccumulation and water permeability. The latter ensures water drainage in the event of a large volume of water in the slabs and prevents waterlogging of the structure. They are supplied in bales, bales on pallets and also the slabs themselves on pallets.

SVT 10053

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Per pallet (m ²)	Per pallet (m ³)	
30	600 × 1 000	6.0	48.0	1.44	NEW
50	600 × 1 000	4.8	28.8	1.44	
50	1 000 × 1 200	-	28.8	1.44	NEW
100*	600 × 1 000	2.4	14.4	1.44	
100*	1 000 × 1 200	-	14.4	1.44	NEW

* Non-standard product, delivery terms on request.

Isover Intense



REINFORCED HYDRO-ACCUMULATION PLATES

Reinforced hydro-accumulation plates used in applications with higher vegetation cover. Especially for intensively vegetated roofs where it is advantageous to layer these boards with mineral roofing substrates. They are also applied on sites with more frequent traffic. Because of their better hydro-accumulation, they are more suitable for pitched green roofs. They are available in packs, packed on pallets and as single boards on pallets.

SVT 10054

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Per pallet (m ²)	Per pallet (m ³)	
25	1 000 × 1 200	-	60.0	1.50	NEW
50	600 × 1 000	3.0	30.0	1.50	
100	600 × 1 000	1.8	14.4	1.44	

Benefits of Isover blue-green solutions:



Increased aesthetic and architectural value
– view of the greenery, higher property value, connection with nature.



Social interaction – roof gardens as a space for gathering and relaxation.



Local environmental improvement
– diverse plants.



Heat island reduction – significant reduction of surface temperatures and less heat accumulation.



Rainwater management – local water retention, subsequent evaporation.



Improving the indoor microclimate – increases indoor thermal comfort, prevents overheating of buildings.



Improving acoustics – reduces environmental noise and contributes to acoustic comfort.



Reduces operating costs – reduces air conditioning costs, increases the efficiency of photovoltaic panels, multiplies the lifetime of waterproofing.

Why choose Isover green roofs:



three times lighter in dry condition

Save on shipping and handling.



4× better insulation in summer and winter

"Cool in summer, warm in winter."



25% lighter when wet

Saves on the supporting structure.



Retains 35% more water

Less frequent irrigation is required and more water remains in the landscape.

Need to find out more?



Catalogue of Vegetation Roofs (In Czech)
www.isover.cz/dokumenty/katalogy-prospekty/isover-vegetacni-strechy-katalog.pdf



Technical documents

You can download design details and compositions in .pdf and .dwg format from the website www.isover.cz/konstrukcni-detaily

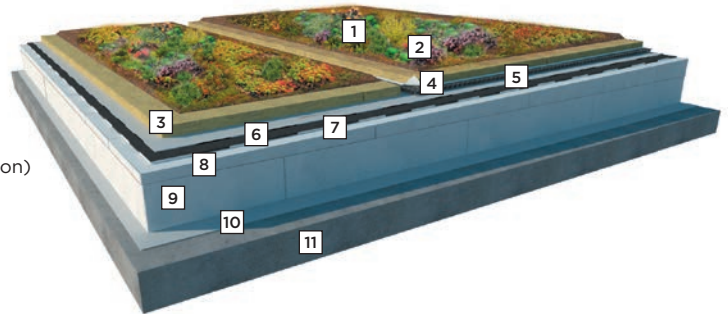
Isover green and blue roofs

Basic division

Isover Energy Saving Roof

Extensive green roof

- 1 dry-loving vegetation – stonecrops, sedges, succulents
- 2 extensive mineral substrate, thickness 30 mm
- 3 Isover Flora hydrophilic boards, thickness. 50 mm
- 4 filter fabric, 120 g/m² (only used with nop film)
- 5 drainage nop film (use depends on drainage capacity calculation)
- 6 protective geotextile, 300 g/m²
- 7 root penetration-resistant waterproofing
- 8 thermal insulation Isover EPS 150 gradient wedges
- 9 Isover EPS 100 thermal insulation
- 10 vapour barrier
- 11 roof structure



- + Rainwater retention
- + Most affordable
- + Easy to implement
- + Low-maintenance
- + Low weight
- Limited choice of vegetation
- Permanently uninhabitable

The most common type of green roofs are these compositions with low arid-loving vegetation. They are low on maintenance and also the most affordable. Recommended plants include stonecrops, sedges and other plants that can cope with extreme roof conditions. The appearance and colour of stonecrops change throughout the year. This type of green roof retains more water than a roof without greenery. At the same time, it is lightweight and therefore suitable for house renovations, pergolas, ...

Isover Roof Meadow

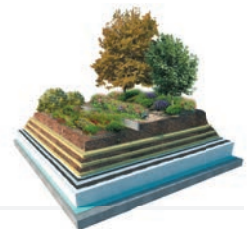
semi-intensive green roof



- + More varied plant mix (grasses, herbs)
- + Permanently fertile
- + Can be combined with a utility function (growing vegetables, herbs)
- More demanding maintenance
- Greater weight of the vegetation layer

Isover Roof Garden

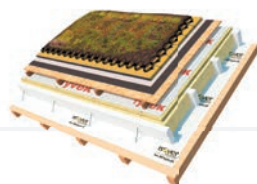
intensive green roof



- + High plant diversity (lawn, shrubs, trees)
- + Significant aesthetic and architectural value
- + Space for relaxation and gathering
- Very high-maintenance
- High demands on the supporting structural elements
- Most financially demanding

Isover Pitched Roof

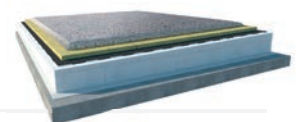
Extensive pitched green roof



- + Low-maintenance
- + Low weight
- + For slopes up to 80°
- Anti-slide stabilisation required
- Drainage retarders required

Isover Blue Roof

blue roof



- + Ability to retain rainwater
- + Affordable solution
- + Almost maintenance-free solution
- Does not fulfil an aesthetic and ecological function
- Without some of the benefits of green roofs

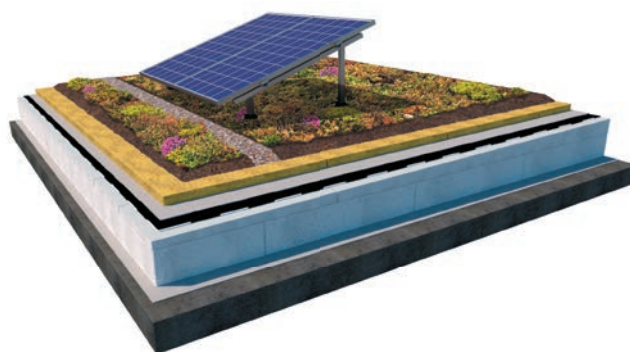
Isover green and blue roofs

The solution for connoisseurs

Photovoltaic panels on a green roof

Photovoltaic panels are one of the ways to use renewable energy sources. The combination of these panels and a green roof brings many benefits. One major one is the significant increase in the efficiency of the PV panels as a result of the lower ambient air temperature that the green roof contributes to.

- + Green roof reduces ambient temperature and dust
- + Photovoltaic panels have significantly higher efficiency at lower temperatures
- + Different habitats have a positive effect on biodiversity
- Cost of implementation
- Higher requirements for the load-bearing capacity of thermal insulation



Biodiverse green roof

The biodiverse roof functions in maximum harmony with the surrounding fauna and flora, providing species diversity for small animals, insects and plants. A variety of environments, materials and non-living elements creates diverse habitats for different species. The biodiverse roof is low on maintenance and provides significant ecological benefits.

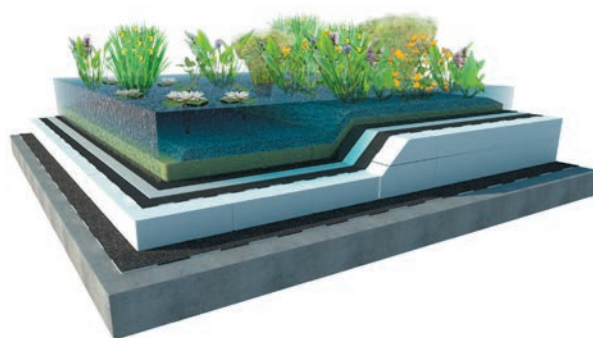
- + Close connection with nature
- + Diverse environment suitable for many plants and animals
- + Low-maintenance
- + Low implementation costs
- Locally higher loads on the structure
- Only partially movable



Isover roof pond

A rooftop pond is another option for managing rainwater. It is an interesting element that brings additional possibilities in the use of the roof. According to the technical and financial possibilities, shallow wetlands, deeper ponds for growing water lilies and other plants or use for bathing can be realised.

- + Distinctive architectural element
- + Water retention
- + Biodiverse environment – species diversity of plants and animals
- High demands on implementation
- Demanding maintenance



Need to find out more?



Catalogue of Vegetation Roofs (In Czech)
www.isover.cz/dokumenty/katalogy-prospekty/isover-vegetacni-strechy-katalog.pdf



Technical documents
You can download design details and compositions in .pdf and .dwg format from the website www.isover.cz/konstrukcni-detaily

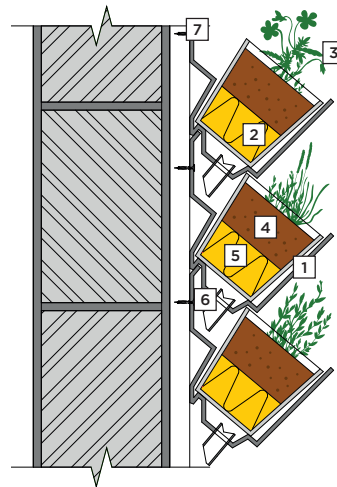
Isover Green Façades

Let's give cities a chance to breathe again

Flora Panel

Green façade

- 1 Flora Panel 850
- 2 FloraPot
- 3 Vegetation
- 4 Growing medium
- 5 Isover Intense Water Accumulation Layer
- 6 Level overflow
- 7 Self-drilling screw



- + Improves air quality and reduces dust
- + Increases indoor thermal comfort
- + Increases the architectural value of the building
- + Easy to implement
- + Closed water circuit
- Requires regular irrigation and maintenance

Green façades provide another opportunity to bring greenery back into built-up areas. They contribute to improving the microclimate in their surroundings, but also have a positive effect on the indoor environment in buildings and save on air conditioning costs. The unique design of the Flora Panel system makes it easy to implement and simplifies maintenance. The solution offers a large number of plants for both extensive and intensive green façades. The Flora Panel system can be used outdoors on building façades and indoors as a design element.



Flora exterior extensive

extensive green façade

- + Lower implementation costs
- + Easy maintenance once per year
- + Lasts up to two weeks without irrigation
- + Minimal water consumption during irrigation
- Limited selection of suitable plant species



Flora exterior intensive

intensive green façade

- + Wide selection of plants
- + Supports biodiversity
- + Distinctive architectural feature
- + Possibility of seasonal plant replacement
- Higher water consumption
- Regular maintenance required once a month

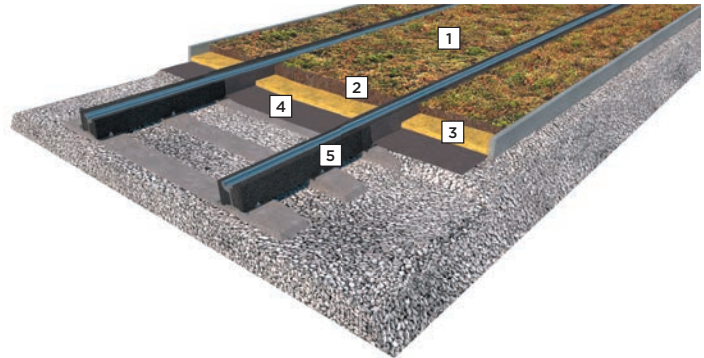
Isover green solutions in the landscape

The use of hydrophilic wool continues to expand

Isover G-Tram System

greening of tram lanes

- 1 Extensive vegetation – stonecrops, sedges
- 2 Extensive mineral substrate
- 3 Hydrophilic Isover Flora or Isover Intense
- 4 Protective geotextile, 300 g/m²
- 5 Track superstructure



- + No irrigation required
- + Maintenance-free solution
- + Reduces noise from tram traffic
- + Increases acoustic comfort in cities
- + High biodiversity value
- + Variable appearance throughout the year
- Unaccompanied, untravelled

The term 'green track' refers to the application of a layer of vegetation to the track superstructure. The Isover G-TRAM solution uses many years of knowledge in the field of vegetated roofs. This has also influenced the choice of plants – dry-loving plants are recommended. They suit a sunny habitat and do not require as much water as is needed when greening tram tracks with grasses. The advantages of the extensive form of greening are the variety of colours and variability throughout the year, the low maintenance burden and the possibility of using the same surface in the tram stop area.

Solitaire planters exterior/interior

- + heat island reduction
- + temperature reduction in city centres
- + absorption of dust particles
- + noise reduction
- + localised rainwater retention
- + improvement of microclimate
- slightly more demanding implementation



Retention slabs below ground level

- + rainwater management
- + local stormwater retention
- + reduced need for irrigation
- + low implementation costs
- slightly more demanding implementation



Acoustic tests

- Hydrophilic mineral wool products have excellent acoustic properties.
- The acoustic tests carried out show that even the basic variant of the Isover Saving Roof will demonstrably improve the airtightness of the roof structure by 6 dB.



Fire certification B_{ROOF} (t3)

- Isover offers an extensive green roof with fire classification B_{ROOF} (t3). The details are in a separate prospectus.
- Isover's Technical Department, upon request from the client or investor, issues assurances of fire classification for extensive green roofs that meet the certification requirements B_{ROOF} (t3).





SANDWICHES



Three groups for customer satisfaction



Optimal

Products are balanced in the optimal combination among thermal resistance and mechanical properties.



Mechanical

The product concentrates more on the best mechanical properties for the most loaded constructions



Fire

A special product for high-fire resistance panels

Isover

SP 60

GROUP 1: OPTIMAL

Parameter	Test Method	Value	Unit	Remark
Lambda	EN 12667, EN 12939	0.042	W/mK	Declared value
Compressive strength	EN 826	60	kPa	Low limit
Tensile strength	EN 1607	100	kPa	Low limit
Shear strength	EN 12090	50	kPa	Low limit
Density	EN 1602	100	Kg/m ³	Nominal value

Isover

SP 80

Parameter	Test Method	Value	Unit	Remark
Lambda	EN 12667, EN 12939	0.043	W/mK	Declared value
Compressive strength	EN 826	80	kPa	Low limit
Tensile strength	EN 1607	120	kPa	Low limit
Shear strength	EN 12090	60	kPa	Low limit
Density	EN 1602	110	Kg/m ³	Nominal value

GROUP 2: MECHANICAL

Isover

SP 100

Parameter	Test Method	Value	Unit	Remark
Lambda	EN 12667, EN 12939	0.044	W/mK	Declared value
Compressive strength	EN 826	100	kPa	Low limit
Tensile strength	EN 1607	150	kPa	Low limit
Shear strength	EN 12090	80	kPa	Low limit
Density	EN 1602	120	Kg/m ³	Nominal value

GROUP 3: FIRE

Isover

SP 150

Parameter	Test Method	Value	Unit	Remark
Lambda	EN 12667, EN 12939	0.047	W/mK	Declared value
Compressive strength	EN 826	150	kPa	Low limit
Tensile strength	EN 1607	200	kPa	Low limit
Shear strength	EN 12090	90	kPa	Low limit
Density	EN 1602	140	Kg/m ³	Nominal value



TECHNICAL INSULATION



Orstech 45

Density: 45 kg/m³

MST: 400 °C



Orstech 45 H

Density: 45 kg/m³

MST: 400 °C/100 °C

Orstech 65

Density: 65 kg/m³

MST: 600 °C



Orstech 65 H

Density: 65 kg/m³

MST: 600 °C/100 °C

Orstech 100

Density: 100 kg/m³

MST: 660 °C



SLAB

Orstech 45 has universal usage in HVAC and industry for applications with lower service temperatures. The slab is suitable mainly for the thermal and acoustic insulation of air ducts. It can be manufactured with an aluminium foil facing (Orstech 45 H) or with a glass tissue facing (Orstech 45 NT). The minimum order quantity (MOQ) of the slabs with the Orstech 45 NT facing has to be consulted with the producer (without MOQ only Orstech 45 NT slabs with a thickness of 50 mm).

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)
40	1000 × 500	6.0	0.24	60.0
50	1000 × 500	5.0	0.25	50.0
60	1000 × 500	4.0	0.24	40.0
80	1000 × 500	3.0	0.24	30.0
100	1000 × 500	2.5	0.25	25.0

SLAB

The slab with the aluminium foil facing is suitable mainly for thermal insulation of air ducts.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)
40	1000 × 500	6.0	0.24	60.0
50	1000 × 500	5.0	0.25	50.0
60	1000 × 500	4.0	0.25	40.0
80	1000 × 500	3.0	0.24	30.0
100	1000 × 500	2.5	0.25	25.0

SLAB

The slab is suitable for thermal and acoustic insulation for air ducts, sound absorbers and horizontal and vertical walls of vessels, tanks and equipment. The slab is suitable for flat and slightly curved walls. The Orstech 65 H slab is part of the ORSTECH Protect fire-resistant ductwork system (EI 60 S according to EN 1366-1); details are available on the system data sheet. It can be manufactured with an aluminium foil facing (Orstech 65 H) or with a glass tissue facing (Orstech 65 NT). The minimum order quantity (MOQ) of the slabs with the Orstech 65 H or NT facing has to be consulted with the producer. Without MOQ only Orstech 65 H slabs with a thickness of 40 and 60 mm and Orstech 65 NT slabs with a thickness of 50 mm.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)
40	1000 × 500	6.0	0.24	60.0
50	1000 × 500	5.0	0.25	50.0
60	1000 × 500	4.0	0.24	40.0
80	1000 × 500	3.0	0.24	30.0
100	1000 × 500	2.5	0.25	25.0

SLAB

The slab with the aluminium foil facing is part of the ORSTECH Protect fire-resistant ductwork system (EI 60 S according to EN 1366-1).

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)
40	1000 × 500	6.0	0.24	60.0
60	1000 × 500	4.0	0.24	40.0

SLAB

The slab is suitable for thermal and acoustic insulation of boilers, columns and vessels with very high temperatures. It can be manufactured with an aluminium foil facing (Orstech 100 H) or with a glass tissue facing (Orstech 100 NT). The minimum order quantity has to be consulted with the producer.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)
40	1000 × 500	6.0	0.24	60.0
50	1000 × 500	4.0	0.20	48.0
60	1000 × 500	4.0	0.24	40.0
80	1000 × 500	3.0	0.24	30.0
100	1000 × 500	2.0	0.20	24.0

Isover

FireProtect® 150

Density: 150 kg/m³

MST: 700 °C



SLAB

Isover FireProtect® 150 is a stone wool slab for the thermal and acoustic insulation of constructions where higher demands are placed on the temperature resistance. The Isover FireProtect® 150 slab is the main part of the Isover FireProtect® system which provides efficient fire protection of structural steelwork according to EN 13381-4:2013 and fire protection of corrugated metal sheets according to EN 1365-2:2015. It is also used as a semi-product for additional processing. The exceptional thickness tolerance of ±1 mm in the production of the slab is ideal for the production of fire doors. Slabs are also used for fire-stopping solutions (Hilti, Intumex, etc.) when pipes, cables, etc. penetrate fire separation walls. The product is supplied as free 1000 × 1200-mm slabs stored on a wooden pallet, piled on top of each other, or as 600 × 1200-mm packages on a pallet.

Thickness (mm)	Dimensions (mm)	Per pallet (m ²)	Transport volume (m ³)
20	1000 × 1200	72.0	1.44
25	1000 × 1200	57.6	1.44
30	1000 × 1200	48.0	1.44
40	1000 × 1200	36.0	1.44
50	1000 × 1200	28.8	1.44
60*	1000 × 1200	24.0	1.44
80*	1000 × 1200	19.2	1.54
100*	1000 × 1200	14.4	1.44

* Non-standard product, delivery on request.

Thickness (mm)	Dimensions (mm)	Per pallet (m ²)	Transport volume (m ³)
20*	600 × 1200	8.64	1.73
30*	600 × 1200	5.04	1.81
40*	600 × 1200	4.32	1.73
50*	600 × 1200	2.88	1.73
60*	600 × 1200	2.88	1.73
80	600 × 1200	2.16	1.73
100	600 × 1200	1.44	1.73

* Non-standard product, delivery on request.

Isover

Tank Roof Slab 20 kPa

Density: 150 kg/m³

MST: 700 °C



SLAB

The Isover Tank Roof Slab 20 kPa is a strong and rigid stone wool slab for the thermal and acoustic insulation of constructions where higher demands are placed on the temperature resistance and mechanical loads of the insulation. The slab fulfils the requirements of SSG 7591 for a bottom layer of storage tank roof insulation (compressive strength 20 kPa). The product is supplied as free 1000 × 1200-mm slabs stored on a wooden pallet, piled on top of each other, or as 600 × 1200-mm packages on a pallet. The slabs must be stored in covered places under such conditions as to avoid moistening or other degradation.

Thickness (mm)	Dimensions (mm)	Per pallet (m ²)	Transport volume (m ³)
20	1000 × 1200	72	1.44
25	1000 × 1200	57.6	1.44
30	1000 × 1200	48	1.44
40	1000 × 1200	36	1.44
50	1000 × 1200	28.8	1.44
60*	1000 × 1200	24	1.44
80*	1000 × 1200	19.2	1.54
100*	1000 × 1200	14.4	1.44

* Non-standard product, delivery on request.

Isover

BSP

Density: 150 kg/m³



SLAB

Isover BSP is a stone wool slab for fire-stopping solutions (Hilti, Intumex, etc.) when pipes, cables, etc. penetrate fire separation walls. The product is supplied as 625 × 1000-mm free slabs or as 625 × 1000-mm packages stored on a 1250 × 1000-mm wooden pallet.

Thickness (mm)	Dimensions (mm)	Packaging (m ²)	Transport volume (m ³)
50	625 × 1000	30.0	1.44
60	625 × 1000	26.25	1.44

Isover

Tank Roof Slab 50 kPa

Density: 160 kg/m³

MST: 700 °C



SLAB

The Isover Tank Roof Slab 20 kPa is a strong and rigid stone wool slab for the thermal and acoustic insulation of constructions where higher demands are placed on the temperature resistance and mechanical loads of the insulation. The slab fulfils the requirements of SSG 7591 for a bottom layer of storage tank roof insulation (compressive strength 20 kPa). The product is supplied as free 1000 × 1200-mm slabs stored on a wooden pallet, piled on top of each other, or as 600 × 1200-mm packages on a pallet. The slabs must be stored in covered places under such conditions as to avoid moistening or other degradation.

Thickness (mm)	Dimensions (mm)	Per pallet (m ²)	Transport volume (m ³)
60	600 × 1200	28.80	1.44
80	600 × 1200	21.60	1.44
100	600 × 1200	17.28	1.44
120	600 × 1200	14.40	1.44
140	600 × 1200	11.52	1.44

Isover

Tank Roof Slab 80 kPa

Density: 190 kg/m³

MST: 720 °C



SLAB

The Isover Tank Roof Slab 80 kPa is a slab with very high density used for the thermal, acoustic and fire protective insulation of flat tank roofs (usually as a top layer in multiple layer systems) and for special technological applications. The slab fulfils the requirements of SSG 7591 for a top layer of storage tank roof insulation. The compressive strength of the Isover Tank Roof Slab 80 is higher than 80 kPa, making it strong enough to withstand normal walking loads during installation and maintenance.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Per pallet (m ²)	Transport volume (m ³)
20	500 × 1000	5	60.0	1.20
40	500 × 1000	3	30.0	1.20

Isover

PYRO

Density: 190 kg/m³



SLAB

Isover PYRO is a slab with very high density used to increase the fire protection of concrete decks and members. The product is supplied as packages on a pallet.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Packaging (m ²)	Transport volume (m ³)
20	500 × 1000	5	60.0	1.20
40	500 × 1000	3	30.0	1.20
60	500 × 1000	2	20.0	1.20
100	500 × 1000	1	12.0	1.20

Isover

Tank Roof Slab 100 kPa

Density: 190 kg/m³

MST: 720 °C



SLAB

Isover Tank Roof Slab 100 is a slab with very high density used as thermal, acoustic and fire protective insulation of flat tank roofs (usually as a top layer in multiple layer systems) and for special technological applications. The slab fulfils the requirements of SSG 7591 for a top layer of storage tank roof insulation. The compressive strength of Isover Tank Roof Slab 100 is higher than 100 kPa, making it strong enough to withstand normal walking loads during installation and maintenance.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Per pallet (m ²)	Transport volume (m ³)
40	500 × 1000	3	30	1.20
60	500 × 1000	2	20	1.20
100	500 × 1000	1	12	1.20

Orstech LSP 40

Density: 40 kg/m³, MST: 250 °C/100 °C



LAMELLA MAT

The Orstech LSP 40 light lamella mat can be used universally both for HVAC and industrial applications with lower service temperatures. It is suitable especially for air ducts.

Thickness (mm)	Dimensions (mm)	Per package (m ²)	Transport volume (m ³)	Per pallet (m ²)
20	1000 × 8000	8.0	0.16	168.0
30	1000 × 5000	5.0	0.15	105.0
40	1000 × 4000	4.0	0.16	84.0
50	1000 × 3000	3.0	0.15	63.0
60	1000 × 3000	3.0	0.18	63.0
80	1000 × 2000	2.0	0.16	42.0
100	1000 × 2300	2.3	0.23	43.7

Orstech LSP H

Density: 55 kg/m³, MST: 600 °C / 100 °C



LAMELLA MAT

The Orstech LSP H lamella mat is suitable for piping, appliances and vessels (both ends and cylindrical parts) and residential heating systems.

Thickness (mm)	Dimensions (mm)	Per pallet (m ²)	Transport volume (m ³)	Per pallet (m ²)
20*	1000 × 8000	8.0	0.16	160.0
30	1000 × 5000	5.0	0.15	100.0
40	1000 × 4000	4.0	0.16	80.0
50	1000 × 3000	3.0	0.15	60.0
60	1000 × 3000	3.0	0.18	63.0
80	1000 × 2000	2.0	0.16	40.0
100	1000 × 2300	2.3	0.23	41.4

* Non-standard product, delivery on request.

Orstech LSP PYRO

Density: 65 kg/m³, MST: 600 °C/100 °C



LAMELLA MAT

The Orstech LSP PYRO lamella mat is suitable for piping, appliances and vessels (both ends and cylindrical parts), residential heating systems and air ducts. It is also part of the ORSTECH Protect fire-resistant ductwork system(EI 60 S according EN 1366-1); details are available on the system data sheet.

Thickness (mm)	Dimensions (mm)	Per pallet (m ²)	Transport volume (m ³)	Per pallet (m ²)
30*	1000 × 5000	5.0	0.15	105.0
40	1000 × 4000	4.0	0.16	84.0
50	1000 × 3000	3.0	0.15	63.0
60	1000 × 3000	3.0	0.18	63.0
80	1000 × 2000	2.0	0.16	42.0
100	1000 × 2000	2.0	0.20	36.0

* Non-standard product, delivery on request.

Orstech Block



Blocks are produced in the width of 1000 or 1200 mm, with a length of 1200 or 2400 mm. The thickness of the block is max. 360 mm. The product can be produced in densities of 65-150 kg/m³.



USE OF TECHNICAL INSULATIONS

ISOVER MINERAL INSULATIONS	Stone wool						
	Orstech LSP 40	Orstech LSP H	Orstech LSP PYRO	Orstech DP 65	Orstech DP 80	Orstech DP 100	
Shape	Lamella mat			Wired mat			
Volume density (kg/m³)	40	55	65	65	80	100	
Ducts							
Heat and hot water distribution	1	1	1				
Industrial distribution, district heating		2	1	1	1	1	
Air ducts							
Circular	1	2	2				
Square							
Industrial storage tanks							
Storage tanks up to 250 °C	1	1	1	2	2	2	
Storage tanks above 250 °C		1	1	1	1	1	
Storage tank roofs							
Boilers and furnaces				1	1	1	
Turbines				1	1	1	
Chimneys			2	1	1	1	
Fire protection							
Air ducts, circular			1				
Air ducts, square							
Steel structures							
Fire doors							
Penetrations through fire partitions							
Noise insulations							
Ducts		1	1	1	1	1	
Flat surfaces							

1

We recommend

2

Suitable

3

Suitable providing compliance with certain conditions

2.

...and choose the best option

3.
Choose your product

Stone wool											
	Orstech 45	Orstech 65	Orstech 100	Isover FireProtect® 150	Duct insulating sleeve	Isover Tank Roof Slab 20 kPa	Isover Tank Roof Slab 50 kPa	Isover Tank Roof Slab 80 kPa	Isover Tank Roof Slab 100 kPa	Isover BSP	Isover PYRO
	Slab				Case			Slab			
	45	65	100	150 (165)	65, 90	150 (165)	125 (160)	190	190	150 (162)	190
					1						
					3						
	1	1									
	1	1	2								
		1	1	1		1	1	1	1		
				1		1	1	1	1		
			1	1		1	1	1	1		
			1	1		1	1				
		1									
				1		1	1	1	1		1
				1							
				1						1	
					2						
	1	1	1	1		1	1				

OVERVIEW OF TECHNICAL PARAMETERS OF MW PRODUCTS

Building insulation parameter		Designation (symbol of the declared level or value)	Units	Testing standard	Isover – basalt wool												
					Uni	Orsik	Tram MW	Aku	N	T - N	T-P	NF 333	Top V	Top V Final	TF Profi	TF Prim	
					Panels		Prism	Panels									
Declared thermal conductivity coefficient value		λ_D	W·m ⁻¹ ·K ⁻¹	EN 12667	0.035	0.037	0.044	0.035	0.035	0.036	0.037	0.040	0.040	0.040	0.035	0.035	
Default thermal conductivity coefficient value*		λ_U	W·m ⁻¹ ·K ⁻¹		0.038	0.039	0.047	0.038	0.036	0.037	0.038	0.043	0.042	0.042	0.037	0.037	
SVT code – New Green Savings Programme		-	-	-	243	246	958	960	430	943	944	244	8804		431		
Thickness	Thickness	-	mm	EN 823	40, 50, 60, 80, 100, 120, 140, 150, 160, 180, 200	40, 50, 60, 70, 80, 90, 100, 120, 140, 160, 180, 200	200, 240, 280	40, 50, 60, 70, 80, 90, 100	20, 25, 30, 40, 50	25, 30, 40, 50	20, 25, 30, 40, 50	30-80, 100, 120, 140-160, 180-200, 220, 240, 260, 280, 300, 320	50, 60, 80, 100, 120, 140, 150, 160, 180, 200	50, 60, 80, 100, 120, 140, 150, 160, 180, 200	30-60, 80, 100, 120, 140, 150, 160, 180, 200, 220, 240, 260, 280, 300, 320, 340, 350	50, 60, 80, 100, 120, 140, 150, 160, 180, 200, 220, 240, 250, 260, 280, 300	
	Surface dimensions	Width	b	mm	EN 822	600	600, 625	100	625	600	600	600	333	333	333	600	600
Length	l	mm	1200	1200, 1000		1000, 1200	1000	1200	1200	1200	1200	1000	1000	1200	1000	1000	
Strength	dimensional changes at given temperature	DS(T+)	mm, %	EN 1604	≤ 1	-	-	≤ 1	-	-	≤ 1	-	-		-	-	
	dimensional changes at given temperature and humidity	DS(TH)	mm, %		-	-	-	-	-	-	-	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	
	Compressive strength at 10% compression	CS(10) (σ_{10})	kPa	EN 826	5	-	-	5	-	-	40	40	30	30	30	20	
	Perpendicular tensile strength	TR (σ_{mt})	kPa	EN 1607	-	-	-	-	-	7.5	-	80	30	30	10	10	
	Point load at 5-mm deformation	PL(5)	N	EN 12430	-	-	-	-	-	-	400	-	-	-	-	-	
Fire	Compressibility	CP (c)	mm	EN 13162	-	-	-	-	5	3	2	-	-	-	-	-	
	Load capacity/payload	-	kPa - kN·m ⁻²	EN 13162	-	-	-	-	≤ 2	≤ 4	≤ 5	-	-	-	-	-	
	Reaction to fire	Class	-	EN 13501-1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	
Smoke generation, burning particles		Additional classification	-	EN 13823	-	-	-	-	-	-	-	-	-	-	-	-	
Acoustic	Dynamic rigidity For thickness	15 mm	SD (s')	MN·m ⁻³	EN 29052-1	-	-	-	-	-	-	-	-	-	-	-	-
		20 mm							25.7	-	30.9						
		25 mm							22.9	25.0	26.7						
		30 mm							18.3	20.4	25.6						
		35 mm							-	-	-						
		40 mm							9.3	19.5	20.8						
		45 mm							-	-	-						
		50 mm							8.4	14.6	-						
	Weighted sound absorption coefficient	20 mm	α_w (α_{mean})	-	Measurement in accordance with EN ISO 354 (declaration according to EN 11654)	-	-	-	-	-	(0.65 for 25-mm thickness)	-	-	-	-	-	-
		40 mm				0.70 (0.79)	0.70 (0.75)	-	0.70 (0.79)	-	-	-	-	-	-	-	
		60 mm				1.00 (0.93)	0.95 (0.90)	-	1.00 (0.93)	-	-	-	-	-	-	1.00	-
		80 mm				1.00 (1.01)	1.00 (0.99)	-	1.00 (1.01)	-	-	-	-	-	-	-	-
		100 mm				1.00 (1.05)	1.00 (1.04)	-	1.00 (1.05)	-	-	-	-	-	-	1.00	-
		120 mm				-	-	-	-	-	-	-	-	-	-	-	-
Moisture	Absorption	Short term	WS (W _p)	kg·m ⁻²	EN 1609	-	-	-	-	-	-	1	1	1	1	1	
	Long term	WL(P) (W _{lp})	kg·m ⁻²	EN 12087	-	-	-	-	-	-	-	3	3	3	3	3	
Diffusion resistance factor		MU (μ)	-	EN 13162	1	1	1	1	1	1	1	1	1	1	1	1	
Specific resistance to air flow		40 mm	AF _r	kPa·s·m ⁻²	EN 29053	(12.3)	(≥ 5)	-	(12.3)	-	-	-	-	-	-	-	
Specific heat capacity c _d		-	J·kg ⁻¹ ·K ⁻¹	ČSN 73 0540-3	800	800	800	800	800	800	800	800	800	800	800	800	

* Applies to standard applications in structures with a potential risk of condensation. For structures without a potential risk of moisture condensation, the declared thermal conductivity coefficient values can be used.

* These are the parameters of the upper layer of the assembly.

Isover – basalt wool																			
	TF Thermo	TF	Fassil	Fassil NT	Topsil	Topsil NT	Woodsil	XH	SH	S	S-i	T	T-i	R	LAM 30	LAM 50	LAM 70	Flora	Intense
Panels																			
	0.035	0.038	0.034	0.034	0.033	0.033	0.035	0.039	0,039	0.037-0.039	0.037-0.039	0.037	0.037	0.036	0.040	0.041	0.042	0.037	0.035
	0.037	0.040	0.036	0.036	0.035	0.035	0.038	0.040	0,040	0.038-0.040	0.038-0.040	0.038	0.038	0.037	0.042	0.043	0.044		
	8760	7864	429	1878	7089	-	4999	10391		945	-	946	948	949	8801	8810	8809	10053	10054
	50, 60, 80, 100, 120, 140, 150, 160, 180, 200, 220, 240, 250, 260, 280, 300	20, 30, 50, 60, 80, 100, 120, 140, 150, 160, 180, 200, 220, 240, 260	50, 60, 80, 100, 120, 140, 160, 180, 200	50	50, 60, 80, 100, 120, 140, 160, 180, 200	50, 60, 80, 100, 120, 140, 160, 180, 200	60, 80, 100, 120, 140, 160, 180	50, 60, 80, 100	60, 80, 100, 120	30, 40, 50, 60, 70, 80, 100, 120, 140, 160	30, 40, 50, 60, 70, 80, 100, 120, 140, 160	60, 80, 100, 120, 140	30, 40, 50, 60, 70, 80, 100, 120, 140, 160	60, 80, 100, 120, 140, 160	140, 160, 180, 220, 240, 300	140, 160, 180, 220, 240, 300	140, 160, 180, 220, 240, 300	30, 50, 100 50, 100 (1000×1200)	50, 100 25 (1000×1200)
	600	600	600	1000	600	600, 1000	580	1200	1200	1200	1200	1200	1200	1200	360	360	360	600	600
	1000	1000	1200	1200	1200	1 200	1200	2000	2000	1000, 2000	2000	1000, 2000	2000	1000, 2000	2000	2000	2000	1000	1000
	-	≤1	≤1	≤1	≤1	-	≤1	≤1	≤1	≤1	-	-	-	≤1	-	-	-	-	-
	≤1	≤1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20	40	-	-	-	-	-	100	100	70	60	50	40	30	30	50	70	10	15
	7.5	15	-	-	-	-	-	10	10	15	10	7.5	5	1	30	50	50	-	-
	-	-	-	-	-	-	-	1000	1000	600	500	500	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1	A1
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1	1	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	-	-
	3	3	-	-	-	-	-	3	3	3	3	3	3	3	3	3	3	-	-
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-
	-	-	(14.5)	(14.5)	(21)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800

PROPERTIES OF TECHNICAL INSULATIONS

Technical insulation parameter		Designation	Units	standard	Stone wool						
					Orstech						
					LSP 40	LSP H	LSP PYRO	45	65	100	
					Temperature (°C)	Lamella mat			Slab ²⁾		
Lamella mats Orstech LSP, wired mats Orstech DP, slabs Orstech: Declared thermal conductivity coefficient value according to EN ISO 13787 (values measured according to EN 12667 are listed in PDS)		λ _b	W·m ⁻¹ ·K ⁻¹	10	0.040	0.040	0.040	0.036	0.035	0.035	
				50	0.046	0.046	0.046	0.042	0.041	0.041	
				100	0.056	0.056	0.056	0.053	0.048	0.047	
				150	0.069	0.069	0.069	0.066	0.058	0.055	
				200	0.084	0.084	0.084	0.082	0.068	0.065	
				250	0.103	0.103	0.103	0.100	0.081	0.076	
				300	0.125	0.125	0.125	0.124	0.097	0.089	
				400	-	0.180	0.180	-	0.134	0.118	
				500	-	0.251	0.251	-	0.183	0.155	
				600	-	0.340	0.340	-	0.248	0.201	
				700	-	-	-	-	-	-	
Apparent density		ρ _v	kg·m ⁻³	EN 1602	40	55	65	45	65	100	
Maximum operating temperature/maximum surface temperature on the facing ^{3),4)}		MST	°C	ČSN EN 14706	250/100	600/100	600/100	400/100	600/100	660/100	
Chemical	AS quality	-	-	AGI Q 132 ⁶⁾	yes	yes	yes	yes	yes	yes	
	Hydrophobisation according to	-	-	EN 1609	yes	yes	yes	yes	yes	yes	
Thickness	Rated	d _N	mm	EN 823	20 30 40 50 60 80 100	20 30 40 50 60 80 100	30 40 50 60 80	40 50 60 80 100	40 50 60 80 100	40 50 60 80 100	
Dimensions	Width	b	mm	EN 822	1000	1000	1000	500 (1000)	500	500	
	Length	l	m (mm)		8; 5; 4; 3; 3; 2; 2.3	8; 5; 4; 3; 3; 2; 2.3	5; 5; 4; 4; 3; 2.8	[1000]	[1000]	[1000]	
Packaging	Area	S	m ²	-	8; 5; 4; 3; 3; 2; 2.3	8; 5; 4; 3; 3; 2; 2.3	5; 5; 4; 4; 3; 2.8	6; 5; 4; 3; 2.5	6; 5; 4; 3; 2.5	6; 4; 4; 3; 2	
Fire properties	Reaction to fire	-	-	EN 13 501-1	A2 - s1, d0	A2 - s1, d0	A2 - s1, d0	A1	A1	A1	
								A1 facing NT	A1 facing NT	A1 facing NT	
								A2 - s1, d0 facing H	A2 - s1, d0 facing H	A2 - s1, d0 facing H	
Resistance to air flow		Ξ	kPa·s/m ²	EN 29053	-	-	-	> 15	> 25	> 65	

- 1) A mat quilted to a galvanised mesh with galvanised wire; upon request, a mat quilted to a galvanised mesh with stainless steel wire (designation X, e.g. Orstech DP 65 X) or a mat quilted to a stainless mesh with stainless wire (designation X-X, e.g. Orstech DP 65 X-X) can be supplied. ALU treatment upon request: aluminium foil sandwiched between the mesh and the mineral mat for protection against dust and against fibre loss from the mat. The insulation thickness must be designed in such a way that the temperature on the surface treatment side does not exceed 100 °C.
 - 2) The slabs can be manufactured with aluminium facing (designation H) or non-woven glass fibre facing (designation NT). The insulation thickness must be designed in such a way that the temperature on the coating side does not exceed 100 °C.
 - 3) The maximum operating temperature varies according to product type. If the insulation is fitted with an aluminium facing (designation H or ALU) or non-woven glass fibre facing (NT), the insulation thickness must be designed in such a way that the temperature on the facing does not exceed 100 °C.
 - 4) At temperatures above 150 °C, a one-off release of the organic component of the binder occurs.
 - 5) MST according to EN 14707
 - 6) AS quality according to AGI Q 132 and EN 13468 - insulation of stainless steel process equipment.
 - 7) Non-standard dimensions by agreement with the insulating sleeve manufacturer (e.g. insulation sleeve thicknesses of 20, 70, 90, 110 or 120 mm).
- PDS = product data sheet

Stone wool						
	Isover FireProtect® 150	Isover Tank Roof Slab 20 kPa	Isover Tank Roof Slab 50 kPa	Isover Tank Roof Slab 80 kPa	Isover BSP	Isover PYRO
	Slab ²⁾				Slab ²⁾	Slab ²⁾
	0.036	0.036	0.037	0.39	0.039	0.039
	0.041	0.041	0.043	0.044	-	0.044
	0.047	0.047	0.048	0.049	-	0.048
	0.053	0.053	0.055	0.054	-	-
	0.060	0.060	0.063	0.061	-	0.059
	0.068	0.068	-	0.068	-	-
	0.077	0.077	0.083	0.076	-	0.073
	0.098	0.098	0.110	0.096	-	0.091
	0.123	0.123	0.143	0.119	-	0.113
	0.154	0.154	0.182	0.146	-	0.138
	0.192	0.192	0.227	0.183	-	0.167
	165 (150)	165 (150)	160 (125)	190	162 (150)	190
	700/100	700/100	700	720	-	720
	yes	yes	yes	yes	-	yes
	yes	yes	yes	yes	yes	yes
	20 25 (30 40 50 60 80 100)	20 25 30 40 50 60 80 100	60 80 100 120 140	20 40 60 100	50 60	20 40 60 100
	1000	1000 (600)	1000 (600)	500	625	500
	[1200]	1200	1200	1000	1000	1000
	-	8,64; 5,04; 4,32; 2,88; 2,88; 2,16; 1,44	7,20; 7,20; 8,64; 7,20; 5,76	5, 3, 2, 1	30; 26,25	5, 3, 2, 1
		A1	A1	A1	A1	A1
	> 90	> 90	> 50	> 90	-	-

INDEX AND DOCUMENTATION OVERVIEW

A	Product	Page	Environmental Product Declaration (EPD)	Technical Datasheet	Declaration of performance
STONE WOOL	Aku	12	✓	✓	✓
	Fassil	17	✓	✓	✓
	Fassil NT	17	✓	✓	✓
	Flora	43	✓	✓	✓
	Intense	43	✓	✓	✓
	LAM 30	31	✓	✓	✓
	LAM 50	31	✓	✓	✓
	LAM 70	31	✓	✓	✓
	Maxil	18	✓	✓	✓
	Maxil NT	18		✓	✓
	MW Lamela Twinner	24		✓	✓
	N	29	✓	✓	✓
	NF 333	23	✓	✓	✓
	N/PP	29		✓	✓
	Orsik	11	✓	✓	✓
	R	33	✓	✓	✓
	S	32	✓	✓	✓
	SG COMBI ROOF	34	✓	✓	✓
	SH	33		✓	✓
	S-i	32	✓	✓	✓
	T	33	✓	✓	✓
	TF	21	✓	✓	✓
	TF Prim	22		✓	✓
	TF Profi	21	✓	✓	✓
	TF Thermo	22	✓	✓	✓
	Topsil	18	✓	✓	✓
	Topsil NT	18		✓	✓
	TOP ROOF	31	✓	✓	✓
	Top V	23	✓	✓	✓
	Top V Final	23		✓	✓
	Tram MW	12		✓	✓
	Twiner	24		✓	✓
	T-i	33	✓	✓	✓
	T-N	29	✓	✓	✓
	T-P	29	✓	✓	✓
	Uni	11	✓	✓	✓
	XH	32	✓	✓	✓
	Woodsil	17	✓	✓	✓
	DK, SD, AK, TRV	34		✓	✓
	Tram EPS	12		✓	✓
STONE WOOL - TECHNICAL INSULATION	BSP	52		✓	✓
	FireProtect* 150	52	✓	✓	✓
	Orstech LSP H	54	✓	✓	✓
	Orstech LSP PYRO	54	✓	✓	✓
	Orstech LSP 40	54	✓	✓	✓
	Orstech 45	51	✓	✓	✓
	Orstech 45 H	51	✓	✓	✓
	Orstech 65	51	✓	✓	✓
	Orstech 65 H	51	✓	✓	✓
	Orstech 100	51	✓	✓	✓
	PYRO	53	✓	✓	✓
	Tank Roof Slab 20 kPa	52		✓	✓
	Tank Roof Slab 50 kPa	53		✓	✓
	Tank Roof Slab 80 kPa	53		✓	✓

MW PRODUCT IDENTIFICATION CODES

	Product	Identification code for declared properties according to EN 13162
	Aku	MW EN 13 162 - T4 - DS(70,-) - MU1
	Fassil	MW EN 13 162 - T4 - DS(70,-) - MU1
	Fassil NT	MW EN 13 162 - T4 - DS(70,-) - MU1 - AFR20
	Flora	
	Intense	
	LAM 30	MW EN 13 162 - T4 - DS(70,-) - CS(10)30 - TR30 - WS - WL(P) - MU1
	LAM 50	MW EN 13 162 - T4 - DS(70,-) - CS(10)50 - TR50 - WS - WL(P) - MU1
	LAM 70	MW EN 13 162 - T4 - DS(70,-) - CS(10)70 - TR50 - WS - WL(P) - MU1
	Maxil	MW EN 13 162 - T4 - MU1
	Maxil NT	MW EN 13 162 - T4 - MU1
	MW Lamela Twinner	
	N	MW EN 13 162 - T6 - CP5 - SD - MU1
	NF 333	MW EN 13 162 - T5 - DS(70,90) - CS(10)40 - TR80 - WS - WL(P) - MU1
	N/PP	
	Orsik	MW EN 13 162 - T2 - MU1
	R	MW EN 13 162 - T4 - DS(70,-) - CS(10)30 - TR1 - WS - WL(P) - MU1
	S	MW EN 13 162 - T5 - DS(70,-) - CS(10)70 - TR15 - PL(5)600 - WS - WL(P) - MU1
	SG COMBI ROOF	
	SH	MW EN 13 162 - T5 - DS(70,-) - CS(10)80 - PL(5)800 - WS - WS(P) - MU1
	S-i	MW EN 13 162 - T5 - DS(70,-) - CS(10)60 - TR10 - PL(5)500 - WS - WL(P) - MU1
	T	MW EN 13 162 - T5 - CS(10)50 - TR7,5 - PL(5)500 - WS - WL(P) - MU1
	TF	MW EN 13 162 - T5 - DS(70,90) - CS(10)40 - TR15 - WS - WL(P) - MU1
	TF Prim	MW EN 13 162 - T5 - DS(70,90) - CS(10)20 - TR10 - WS - WL(P) - MU1
	TF Profi	MW EN 13 162 - T5 - DS(70,90) - CS(10)30 - TR10 - WS - WL(P) - MU1
	TF Thermo	MW EN 13 162 - T5 - DS(70,90) - CS(10)20 - TR7,5 - WS - WL(P) - MU1
	Topsil	MW EN 13 162 - T4 - MU1
	Topsil NT	MW EN 13 162 - T4 - MU1
	TOP ROOF	
	Top V	MW EN 13 162 - T5 - DS(70,-) - CS(10)30 - TR30 - WS - WL(P) - MU1
	Top V Final	MW EN 13 162 - T5 - DS(TH) - CS(10)30 - TR30 - WS - WL(P) - MU1
	Tram MW	MW EN 13 162 - T5 - DS(70,-) - CS(10\Y)80 - WS - WL(P) - MU1
	Twinner	
	T-i	MW EN 13 162 - T5 - CS(10)40 - TR5 - WS - WL(P) - MU1
	T-N	MW EN 13 162 - T6 - CP3 - SDi - MU1
	T-P	MW EN 13 162 - T7 - DS(T+) - DS(TH) - CS(10)40 - PL(5)400 - CP2 - SDi - MU1
	Uni	MW EN 13 162 - T4 - DS(70,-) - MU1
	XH	MW EN 13 162 - T5 - DS(70,-) - CS(10)100 - TR10 - PL(5)1000 - WS - WL(P) - MU1
	Woodsil	MW EN 13 162 - T4 - DS(70,-) - MU1
	DK, SD, AK, TRV	
	Tram EPS	EPS EN 13 163 - T2 - L3 - W3 - S5 - P10 - BS200 - CS(10)150 - DS (N)2-DS(70,-)1 - DLT(1)5 - WL(T)5
	BSP	MW EN 13 162 - T5 - DS(70,-) - CS(10)60 - TR10 - PL(5)500 - WS - WL(P) - MU1
	FireProtect® 150	MW EN 14 303 - T5 - CS(10)20 - ST(+)700 - WS1 - CL10
	LSP H	MW EN 14 303 - T4 - ST(+)600 - WS1 - CL10
	LSP PYRO	MW EN 14 303 - T4 - ST(+)600 - WS1 - CL10
	LSP 40	MW EN 14 303 - T4 - ST(+)250 - WS1 - CL10
	Orstech 45	MW EN 14 303 - T4 - ST(+)400 - WS1 - CL10
	Orstech 45 H	MW EN 14 303 - T4 - ST(+)400 - WS1 - CL10
	Orstech 65	MW EN 14 303 - T4 - ST(+)600 - WS1 - CL10
	Orstech 65 H	MW EN 14 303 - T4 - ST(+)600 - WS1 - CL10
	Orstech 100	MW EN 14 303 - T4 - ST(+)660 - WS1 - CL10
	PYRO	MW EN 13 162 - T5 - DS(70,-) - CS(10)80 - TR7,5 - WS - WL(P) - MU1
	Tank Roof Slab 20 kPa	MW EN 14 303 - T5 - CS(10)20 - ST(+)700 - WS1 - CL10
	Tank Roof Slab 50 kPa	MW EN 14 303 - T5 - ST(+)700 - CS(10)50 - WS1 - CL10
	Tank Roof Slab 80 kPa	MW EN 14 303 - T5 - ST(+)720 - CS(10)80 - WS1 - CL10

INSTRUCTIONS FOR STORING PALLETS WITH BASALT PRODUCTS OUTDOORS

Applies to the products: Isover Maxil, Isover Topsil, Isover Fassil, Isover Fassil NT, Isover Uni, Isover Aku, Isover Woodsil, Isover Orsik, Isover TF Profi, Isover TF, Isover NF 333, Isover LAM 30, Isover LAM 50, Isover LAM 70, Isover S, Isover T, Isover R, and other products in identical packaging.

The recommended storage period is a maximum of three months from delivery. Pallets with basalt mineral wool (boards or bales on a pallet) can be stored outdoors if the following conditions are met:

1

Outdoor storage is only possible if the pallet features the original packaging and is undamaged.



2

Pallet stacking is only permitted for Isover T, Isover S, Isover R, Isover TF Profi and Isover NF 333 products (stacked to a height of two pallets). Stacking of pallets with bales or stacking to a height of three pallets is not allowed. There is a risk of damage to the packaging and goods inside.



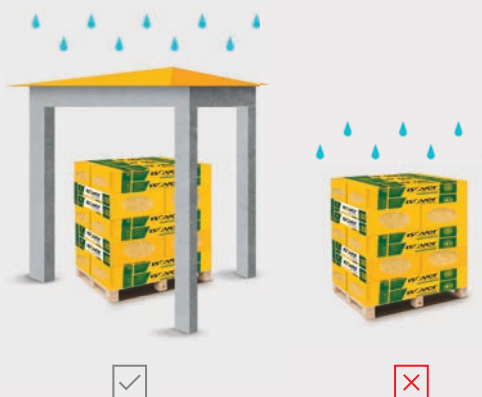
3

A vital requirement is storage on a dry and level surface with sufficient drainage in case of heavy rain to prevent the pallet from getting moist.



4

Once a pallet has been unpacked, both for pallets with bales and boards, the goods must be stored strictly in a roofed (indoor) area).



NOTES

[illegible]

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