

# Diversity of walls.

Visually attractive and useable in a number of combinations.



A company  
of ThyssenKrupp  
Steel

**ThyssenKrupp Bausysteme**



ThyssenKrupp

# ThyssenKrupp Bausysteme.

Strong partners, strong companies.

Economic efficiency, low cost of operation, large building dimensions - the demands on modern industrial or commercial buildings are constantly increasing. Whereas in former times a simple 'housing' was sufficient to keep bad weather such as rain and wind at bay, today a high-tech envelope is required. It has to be easily installed, meet exacting architectural demands and be available at an affordable price.

ThyssenKrupp Bausysteme offer a large product portfolio of building elements for modern façade systems:

- Hoesch isowand integral®
- Hoesch isorock®
- Hoesch isorock® vario
- Hoesch isorock® akustik
- Hoesch isowelle®
- Hoesch isowand vario®
- Hoesch Siding
- Hoesch Trapezoidal sheet
- Hoesch Thermowand TL
- Hoesch Thermowand and Hoesch Thermowand 1000
- Hoesch Liner Trays

**Whatever ideas and demands you may have, ThyssenKrupp Bausysteme is your capable and strong partner who will assist you in finding the appropriate solution to your problems, offering:**

- one of the largest ranges of ecological and recyclable products for industrial building construction
- products and service ideally adapted to meet customers' needs and requirements
- production sites close to the market, thus giving rapid and flexible service
- highly motivated, fully qualified staff able to give competent advice
- high grade innovative products at keen prices.

Welcome to  
ThyssenKrupp Bausysteme.

## The range of building elements for walls

### Table of contents

#### CreativeLine

Hoesch isowand integral®	03
Hoesch isorock®	04
Hoesch isorock® vario	06
Hoesch isorock® akustik	08
Hoesch isowelle®	09
Hoesch isowand vario®	10

#### SpecialLine

Hoesch Siding	11
---------------	----

#### ClassicLine

Hoesch Trapezoidal sheet	12
Hoesch Liner tray	13
Hoesch Thermowand TL	14
Hoesch Thermowand and Hoesch Thermowand 1000	15

# Hoesch isowand integral®.

The building element to meet the most exacting architectural demands.

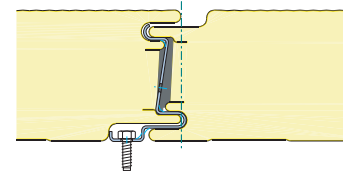
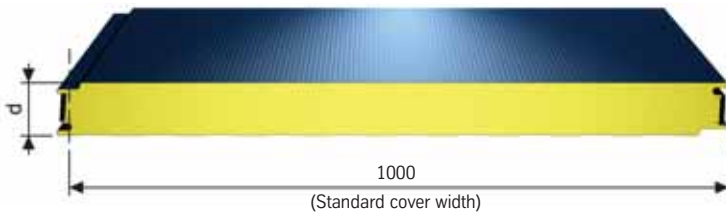
The curved and square corner claddings allow for an individual architectural design on any project.

## Product properties

- Precisely fitting joint geometry using factory-applied sealing strips
- Concealed fastening with integral clamp
- Low dead weight
- Excellent thermal insulation ensured by a PUR core layer
- Also available with cover widths of 600mm, 900mm and 1200 mm, depending on the quantity ordered
- Also available with a PIR core layer (minimum quantity required)
- Cover sheets made from coil-coated GALFAN®
- Alternative materials for cover sheets on request
- Officially approved by the German building inspectorate (Z-10.4-345) and by the competent authorities in many European countries (e.g. LPC approved)
- Special elements available for corners and parapets
- Laying as a polygonal arch possible
- Easy replacement of damaged elements
- Ready for installation when delivered



CreativeLine



Joint detail, concealed fastening

Designation of building element	Element thickness d	Material thickness		Max. length supplied	Weight	Thermal resistance R*	Heat transfer coefficient U*	Weighted sound reduction index R <sub>w</sub>
		Outer sheet t <sub>N</sub>	Inner sheet t <sub>N</sub>					
	mm	mm	mm	m	kg/m <sup>2</sup>	m <sup>2</sup> K/W	W/m <sup>2</sup> K	dB
Hoesch isowand integral®	60	0.55	0.55	20	12.4	2.36	0.39	25
	80				13.3	3.16	0.30	
	100				14.2	3.96	0.24	
	120				15.1	4.76	0.20	

\* calculation acc. to EN ISO 6946

Profiling of cover sheet	Slightly profiled (L)	Microprofiled (M)	V profiled (V)	Flat (E)
Outer sheet	●	●	●	●
Inner sheet	●			■

● = available / ■ = on request

# Hoesch isorock®.

## Innovative characteristics in terms of fire protection and thermal insulation.

Hoesch isorock® sandwich elements consist of outer and inner cover sheets which are connected by a wool core so as to be shear-resistant. This provides high load-bearing capacity, good load-transmitting properties and efficient thermal insulation.

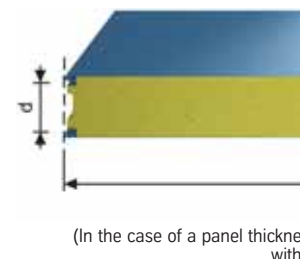
### Product properties

- Hoesch isorock® sandwich elements are classified as **'non combustible'** building materials A2-s1, d0 as per DIN EN 13501-1
- Bio-degradable mineral wool core classified as building material A1 (DIN EN 13501-1)
- Useable as a **fire wall** inside a building
- Thermal separation of the cover sheets
- Defined fire resistance classes as per national and international standards
- High level of thermal insulation
- Lengths up to 16 m
- High rigidity
- Tight against driving rain
- Good airborne sound insulation  $R_{w} = 29$  dB, measured on façade test rig
- Precisely fitting joint geometry with factory-applied sealing strips
- High degree of air tightness
- Easy and rapid installation
- Vapour-tight cover sheets made from coil-coated GALFAN®
- Officially approved by the building inspectorate (Z-10.4-235)



Hoesch isorock® fire resistance classes for use as wall elements

Designation of building element	Fire resistance class	Laying direction	Max. spacing of wall girts (h) / supports (b) in m	Type	Element thickness (d) in mm	Test certificate Test report no.
Hoesch isorock®	F 30-A	vertical	$h \leq 4.00$	D2	$\geq 60$	Official test certificate no. P-3545/2430-MPA BS
		vertical	$h \leq 5.00$	D1	$\geq 80$	
		horizontal	$b \leq 6.00$	D2	$\geq 100$	
	F 60-A	vertical	$h \leq 4.00$	D1	$\geq 80$	
		vertical	$h \leq 5.00$	D2	$\geq 80$	
		horizontal	$b \leq 6.00$	D2	$\geq 120$	
	F 90-A	vertical	$h \leq 5.00$	D2	$\geq 100$	
		vertical	$h \leq 6.00$	D2	$\geq 120$	
		horizontal	$b \leq 3.20$	D2	$\geq 100$	
	F 120-A	horizontal	$b \leq 6.00$	D2	$\geq 120$	
		vertical	$h \leq 5.00$	D2	$\geq 120$	
		vertical	$h \leq 5.00$	D2	$\geq 120$	
W 90-A	vertical	$h \leq 5.00$	D2	$\geq 80$	Test certificate P-3544/2420-MPA BS	
	horizontal	$b \leq 4.50$	D2	$\geq 100$		
EN 13501-2	EI 30*	see <sup>1)</sup>	$h \leq 4.00$	D2	$\geq 60$	3275/8119
	EI 60*	see <sup>1)</sup>	$h \leq 4.00$	D1	$\geq 80$	9477 A
	EI 90*	see <sup>1)</sup>	$h \leq 4.00$	D1	$\geq 160$	PB III/B-03-036



Hoesch isorock® fire resistance classes for use as the underside of ceilings

Designation of building element	Fire resistance class		Max. span in m	Type	Element thickness (d) in mm	Test certificate
	Class	Condition of support / flame impingement conditions				
Hoesch isorock®	EN 13501-2 EI 30**	Unsupported floor / flame impingement from below „a ← b“	$\leq 4.40$	D1	$\geq 100$	PB III/B-02-237

\* Testing according to EN 1363-1 and EN 1364-1, classification as per DIN EN 13501-2. \*\* Testing according to EN 1364-2, classification as per DIN 13501-2.

<sup>1)</sup> In Germany, only vertical laying is permissible, outside of Germany both vertical and horizontal laying is permissible.

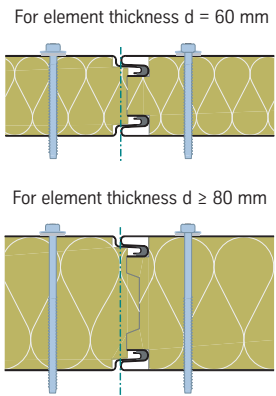


Profiling of cover sheet  
Outer sheet  
Inner sheet  
• = available





Class of 60 mm the rock wool core is not provided (tongue and groove)



Designation of building element	Type	Element thickness d mm	Material thickness		Max. length supplied m	Weight kg/m <sup>2</sup>	Thermal resistance R* m <sup>2</sup> K/W	Heat transfer coefficient U* W/m <sup>2</sup> K
			outer sheet t <sub>N</sub> mm	inner sheet t <sub>N</sub> mm				
Hoesch isorock®	D0	60	0.50 0.75	0.50 0.75	16.0 16.0	14.0 18.3	1.44	0.62
		80			16.0 16.0	15.8 20.1	1.93	0.48
		100			16.0 16.0	17.6 21.9	2.41	0.39
		120			16.0 16.0	19.4 23.7	2.90	0.33
		140			16.0 15.7	21.2 25.5	3.39	0.28
		160			16.0 14.7	23.0 27.3	3.88	0.25
		180			16.0 13.8	24.8 29.1	4.37	0.22
		200			15.1 13.0	26.5 30.8	4.85	0.20
Hoesch isorock®	D1	60	0.50 0.75	0.50 0.75	16.0 16.0	14.6 18.9	1.37	0.65
		80			16.0 16.0	16.6 20.9	1.84	0.50
		100			16.0 16.0	18.6 22.9	2.30	0.40
		120			16.0 16.0	20.6 24.9	2.77	0.34
		140			16.0 14.9	22.6 26.9	3.23	0.29
		160			16.0 13.9	24.6 28.9	3.70	0.26
		180			15.1 13.0	26.6 30.9	4.16	0.23
		200			14.1 12.2	28.5 32.8	4.63	0.21
Hoesch isorock®	D2	60	0.50 0.75	0.50 0.75	16.0 16.0	16.0 20.4	1.31	0.68
		80			16.0 16.0	18.5 22.9	1.76	0.52
		100			16.0 15.8	21.0 25.4	2.20	0.42
		120			16.0 14.4	23.5 27.9	2.64	0.36
		140			15.4 13.2	26.0 30.4	3.09	0.31
		160			14.0 12.2	28.5 32.9	3.53	0.27

	Slightly profiled (L)	Microprofiled (M)	V profiled (V)	Flat (E)
●	●	●	●	■
●	●			■

● / ■ = on request

Element thickness d = 150 mm, longer versions or other combinations of material thickness on request \* calculation acc. to EN ISO 6946

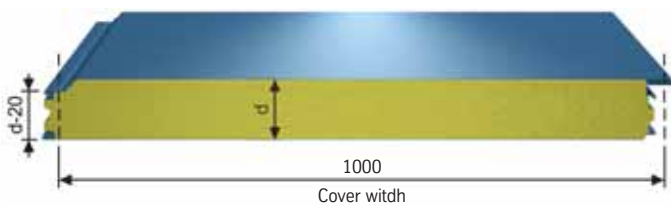
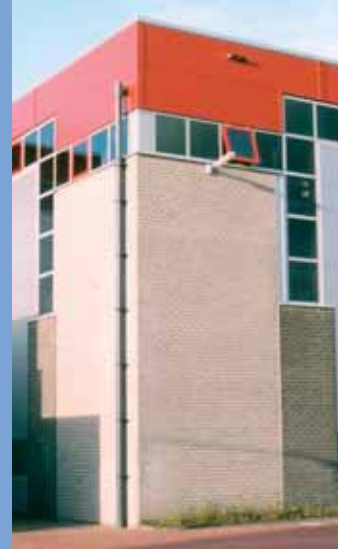
# Hoesch isorock® vario.

## Innovative fire protection and exacting architecture.

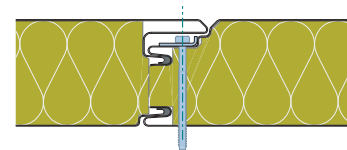
The outside of the joint is designed to be identical with the well-proven PUR sandwich panel Hoesch isowand vario®. Fire protection is possible without any compromise in terms of the visual appearance of the façade.

### Product properties

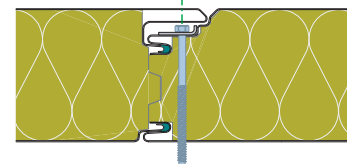
- Hoesch isorock® vario is classified as a **'non combustible'** building material A2-s1, d0 as per DIN EN 13501-1
- Bio-degradable mineral wool core classified as a **'non combustible'** building material A1 (DIN EN 13501-1)
- Defined fire resistance classes according to the European standard
- Concealed fastening
- Vapour-tight cover sheets made from coil-coated GALFAN®
- Thermal separation of the cover sheets
- Outside of the joint identical with Hoesch isowand vario®
- Various coating systems are available
- Precisely fitting joint geometry with factory-applied sealing strips
- Ready for installation when delivered
- Alternative materials for cover sheets on request
- Special elements available for corners and parapets
- Useable as a **fire wall** inside a building
- Official approval no. Z-10.4-235 issued by the building inspectorate



(In the case of a panel thickness of 80 mm the rock wool core is not provided with tongue and groove)



For element tickness d = 80 mm



For element tickness d ≥ 100 mm

Hoesch isorock® vario fire resistance classes for use as wall elements

Designation of building element	Fire resistance class	Laying direction	Max. spacing of wall girts (h) / supports (b) in m	Type	Element thickness (d) in mm	Test certificate	
Hoesch isorock® vario	DIN 4102-2,3	F 30-A	vertical	≤ 4.00	D2	≥ 80	Official test certificate no. P-SAC 02/III-096
		F 60-A	vertical	≤ 4.00	D2	≥ 120	
		F 90-A	vertical	≤ 4.00	D1	≥ 150	
	EN 13501-2	EI 30*	see <sup>1)</sup>	≤ 4.00	D2	≥ 80	PB III/B-02-306
		EI 60*	see <sup>1)</sup>	≤ 4.00	D2	≥ 120	PB III/B-02-259
		EI 90*	see <sup>1)</sup>	≤ 4.00	D1	≥ 150	PB III/B-03-038

\* Testing according to EN 1363-1 and EN 1364-1, classification as per DIN EN 13501-2.

<sup>1)</sup> In Germany, only vertical laying is permissible, outside Germany both vertical and horizontal laying is permissible.

Profiling of cover sheet	Slightly profiled (L)	Microprofiled (M)	V profiled (V)	Flat (E)
Outer sheet	●	●	●	■
Inner sheet	●			■

● = available / ■ = on request



Designation of building element	Type	Element thickness d	Material thickness		Max. length supplied	Weight	Thermal resistance R*	Heat transfer coefficient U*
			outer sheet t <sub>N</sub>	inner sheet t <sub>N</sub>				
		mm	mm	mm	m	kg/m <sup>2</sup>	m <sup>2</sup> K/W	W/m <sup>2</sup> K
Hoesch isorock® vario	D0	80	<b>0.50</b> 0.75	<b>0.50</b> 0.75	<b>16.0</b> 16.0	<b>15.9</b> 20.4	1.93	0.48
		100			<b>16.0</b> 16.0	<b>17.7</b> 22.2		
Hoesch isorock® vario	D1	80	<b>0.50</b> 0.75	<b>0.50</b> 0.75	<b>16.0</b> 16.0	<b>16.9</b> 21.4	1.84	0.50
		100			<b>16.0</b> 16.0	<b>18.9</b> 23.4		
		120			<b>16.0</b> 15.7	<b>20.9</b> 25.4		
		140			<b>16.0</b> 14.6	<b>22.9</b> 27.4		
		150			<b>16.0</b> 14.0	<b>23.9</b> 28.4		
		160			<b>16.0</b> 13.6	<b>24.9</b> 29.4		
		180			<b>14.9</b> 12.7	<b>26.9</b> 31.4		
		180			<b>13.8</b> 12.0	<b>28.9</b> 33.4		
		200						
Hoesch isorock® vario	D2	80	<b>0.50</b> 0.75	<b>0.50</b> 0.75	<b>16.0</b> 16.0	<b>18.8</b> 23.3	1.76	0.52
		100			<b>16.0</b> 15.5	<b>21.3</b> 25.8		
		120			<b>16.0</b> 14.1	<b>23.8</b> 28.3		
		140			<b>15.2</b> 13.0	<b>26.3</b> 30.8		
		140			<b>13.9</b> 12.0	<b>28.8</b> 33.3		
		160						

Other cover sheet combinations such as outside / inside = 0.75 / 0.50 are available as a standard  
 Element thickness d = 150 mm, longer versions or other material combinations on request \* calculation acc. to EN ISO 6946



# Hoesch isorock® akustik.

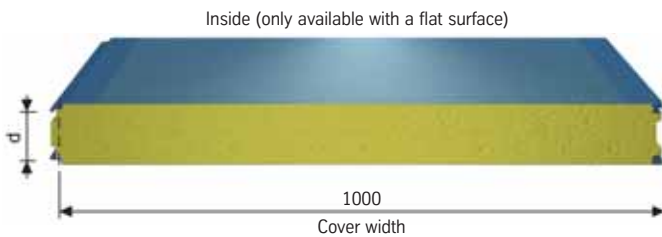
Sound insulation comes first. The building element with acoustic perforation for **use inside a building**.

Made according to a well proved procedure from the same raw material but with improved sound insulation properties, Hoesch isorock® akustik offers efficient noise protection with excellent sound absorption values.



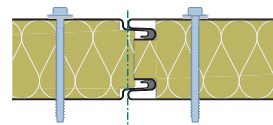
## Product properties

- Efficient thermal insulation
- Bio-degradable mineral wool core
- Good airborne sound insulation  $R_W = 34$  dB
- Thermal separation of the cover sheets
- Available in lengths of up to 16 m
- High rigidity
- Precisely fitting joint geometry with factory-applied sealing strips
- Rapid and easy installation

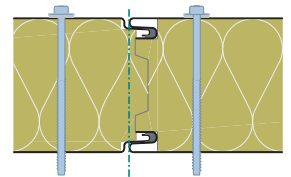


Inside (only available with a flat surface)

Joint design for element thickness  $d = 60$  mm



Joint design for element thickness  $d \geq 80$  mm



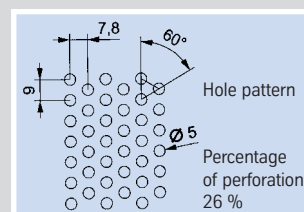
(In the case of a panel thickness of 80 mm the rock wool core is not provided with tongue and groove)

Designation of building element	Type	Element thickness d	Material thickness		Max. length supplied	Weight	Thermal resistance R*	Heat transfer coefficient U*	Weighted sound reduction index $R_W$		
			outer sheet $t_N$	inner sheet $t_N$							
		mm	mm	mm	m	kg/m <sup>2</sup>	m <sup>2</sup> K/W	W/m <sup>2</sup> K	dB		
Hoesch isorock® akustik	D1	60	0.50	0.50	16.0	13.5	1.37	0.65	34		
		80			16.0	17.2					
		100			16.0	19.2					
		120			16.0	17.5	2.30	0.40			
		140			16.0	21.2					
		150			0.75	0.75	16.0	19.5		2.77	0.34
		160			16.0	23.2					
		180			16.0	21.5	3.23	0.29			
		200			15.9	25.2					
					16.0	22.5	3.47	0.28			
					15.3	26.2					
					16.0	23.5	3.70	0.26			
					14.7	27.2					
					15.7	25.5	4.16	0.23			
					13.7	29.2					
					14.6	27.4	4.63	0.20			
					12.9	31.1					

Element thickness  $d = 150$  mm, longer versions or other material combinations on request \* calculation acc. to EN ISO 6946

Profiling of cover sheet	Slightly profiled (L)	Microprofiled (M)	V profiled (V)	Flat (E)
Outer sheet	●	●	●	■
Inner sheet				●

● = available      ■ = on request





# Hoesch isowelle®.

## A smooth transition to modern architecture.

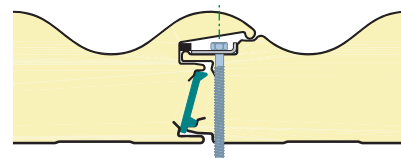
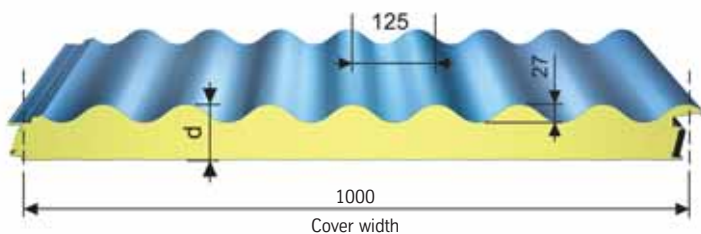
Hoesch isowelle® façade elements are delivered ready for installation. Their characteristic geometry allows for the design of contemporary homogeneous wall surfaces.

### Product properties

- Excellent thermal insulation as a result of the PUR core (PIR foam on request)
- Precisely fitting joint geometry with a defined stop and an auxiliary groove for screw fastening
- Factory-applied sealing strip in the joint
- Vapour-tight cover sheets
- Low dead weight
- Large spans
- Outer sheet corrugated, inner sheet slightly profiled
- Cover sheets made from coil-coated GALFAN®
- Alternative materials for cover sheets on request
- Officially approved by the German building inspectorate (Z-10.4-345) and by the competent authorities in many European countries
- Can be combined with Hoesch isowand vario®



CreativeLine



Joint detail, concealed fastening

Designation of building element	Element thickness d	Material thickness		Max. length supplied	Weight	Thermal resistance R*	Heat transfer coefficient U*
		Outer sheet t <sub>N</sub>	Inner sheet t <sub>N</sub>				
Hoesch isowelle®	64	0.60	0.75	20	14.8	1.95	0.47
	84				15.7	2.74	0.34
	104				16.6	3.54	0.27

\* calculation acc. to EN ISO 6946

# Hoesch isowand vario®.

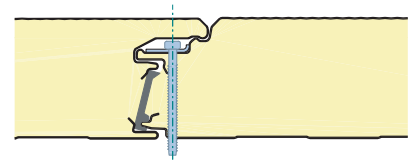
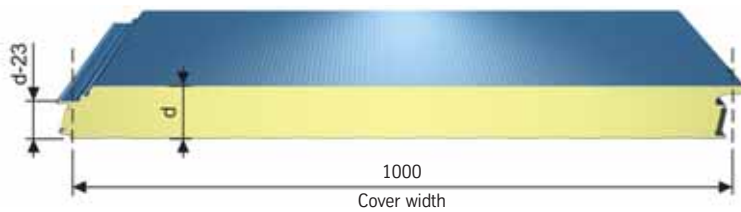
The variable element suitable for use in combination with Hoesch isowelle®.

Hoesch isowand vario® is the basis of modern façade design. For the first time, two innovative products from ThyssenKrupp Hoesch, Hoesch isowand vario® and Hoesch isowelle®, unite to present a visually appealing design.



## Product properties

- Precisely fitting joint geometry with factory-applied sealing strip
- Concealed fastening
- Exact cover width by a defined stop and an auxiliary groove for screw fastening
- Low dead weight
- Excellent thermal insulation as a result of the PUR core (PIR foam on request)
- Large spans
- Ready for installation when delivered
- Cover sheets made from coil-coated GALFAN®
- Officially approved by the German building inspectorate (Z-10.4-345) and by the competent authorities in many European countries



Joint detail, concealed fastening

Designation for building element	Element thickness d	Material thickness		Max. length supplied	Weight	Thermal resistance R*	Heat transfer coefficient U*
		Outer sheet t <sub>N</sub>	Inner sheet t <sub>N</sub>				
	mm	mm	mm	m	kg/m <sup>2</sup>	m <sup>2</sup> K/W	W/m <sup>2</sup> K
Hoesch isowand vario®	60	0.50	0.50	20	11.6	2.36	0.39
	80				12.4	3.16	0.30
	100				13.3	3.96	0.24

\* calculation acc. to EN ISO 6946

Profiling of cover sheet	Slightly profiled (L)	Microprofiled (M)	V-profiled (V)
Outer sheet	●	●	●
Inner sheet	●		

● = available

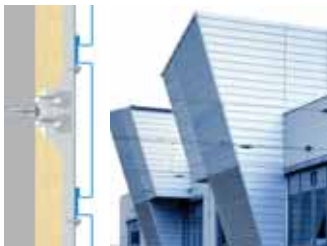
# Hoesch Siding.

## Cost-efficient but nonetheless individual.

The Hoesch Siding façade element has stood the test for many years. It offers not only versatile and individual design possibilities in terms of shape and colour but also attractive combinations with other building elements.

### Product properties

- Curtain-type façade, ventilated at rear, can be laid vertically, horizontally or diagonally
- Made from coil-coated GALFAN®
- Cover width between 200 and 400 mm, length up to 8 m
- Concealed fastening
- Flat surface
- Fastened to a conventional supporting structure or to a rail forming part of the system
- Low dead weight
- On request, the ends of the elements can be folded back so as to give a closed façade
- Individual designs for the corners of buildings
- Resistant to weathering and corrosion
- Alternative base metal on request



#### Example: Horizontal laying (types S and H)

Fastening to a vertical supporting structure (installation direction for type S: from top to bottom), observe shadow gap.



#### Example: Vertical laying (type V)

Fastening to a horizontal supporting structure. Laying with a shadow gap (type S) is possible.



#### Example: Horizontal laying on a rail (type H)

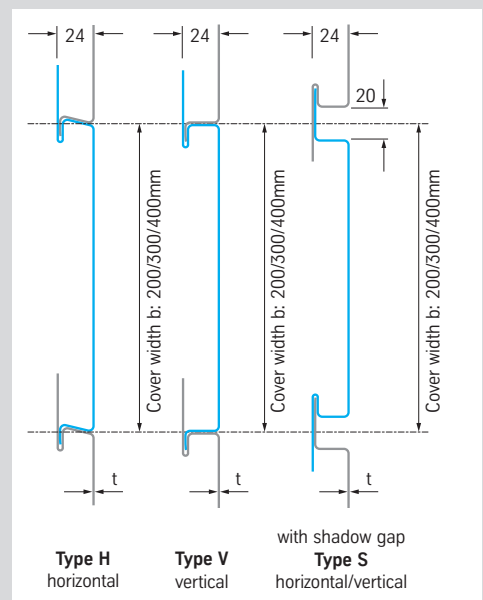
Fastening by hanging the elements on a rail forming part of the system. Each element is fastened at one point only using a screw or a rivet.

Designation of building element	Cover width	Material thickness $t_N$ flat (E)	Max. length supplied	Profile depth
	b			h
	mm	mm	m	mm
HPL 200	200	0.75	8.0	24
		0.88		
		1.00		
HPL 300	300	0.88		
		1.00		
HPL 400	400	1.00		

• Joint design: H only for horizontal laying  
V only for vertical laying  
S with shadow gap for horizontal and vertical laying

• Surface texture: E (flat surface)

• Optionally with or without folded ends

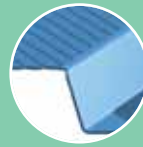


# Hoesch Trapezoidal sheet.

The classical, versatile material for roofs and walls, which may be used in the single or double-sheet form, available with or without perforation, an economic method for large surfaces.



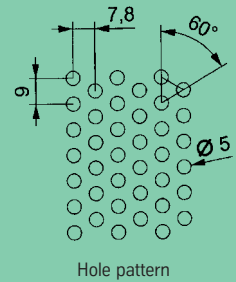
## Hole patterns for acoustic sheets



Upper flanges perforated



Complete surface perforated



Hole pattern

## Trapezoidal steel sheets acc. to DIN 18 807

Profiled panel Please observe the A and B side!	Max. length supplied	Material thickness $t_N$	Weight
 T 35.1	18	0.63	6.01
		0.75	7.16
		0.88	8.40
		1.00	9.55
 T 35.1D	18	0.63	6.09
		0.75	7.25
		0.88	8.50
 T 40.1	18	0.63	6.80
		0.75	8.10
		0.88	9.50
		1.00	10.80
 T 40.1D	18	0.63	6.89
		0.75	8.20
		0.88	9.62
 T 40.1S	18	0.75	8.10
		0.88	9.50
		1.00	10.80
 T 50.1	18	0.63	6.30
		0.75	7.50
		0.88	8.80
		1.00	10.00
		1.25	12.50
		1.50	15.00

Please indicate the A and the B sides in the case of different coatings.

## Acoustic sheets for walls

Profiled panel Please observe the A and B side!	Max. length supplied	Material thickness $t_N$	Weight	
				m
 T 35.1 A Upper flanges perforated	18	0.75	5.76	
			Percentage of perforation 22.3 %*	
 T 35.1 AG Complete surface perforated	18	0.75	5.05	
			Percentage of perforation 32.3 %*	
 T 40.1 A Upper flanges perforated	18	0.75	6.51	
			Percentage of perforation 25.3 %*	
 T 40.1 AG Complete surface perforated	18	0.75	5.71	
			Percentage of perforation 36.5 %*	

\* Related to the cover width.

Please indicate the A and the B sides in the case of different coatings.



# Hoesch Liner tray.

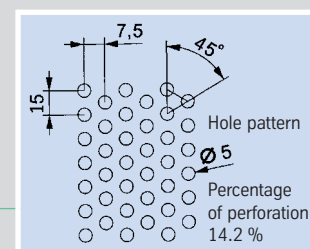
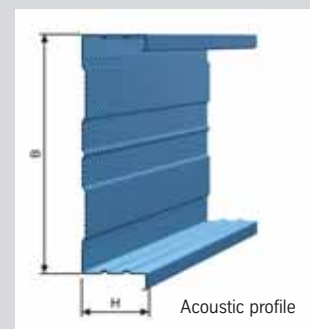
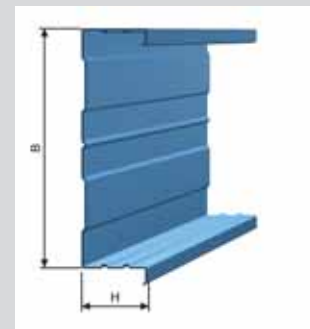
The universal supporting system for classical double-sheet wall structures.

For the construction of low-cost insulated walls for industrial buildings, where appealing design, large spans and sound insulation are of essence.



Designation of building element	Profile height H mm	Profile width B mm	Material thickness $t_w$ mm	Weight $k_w/m^2$	Max. length supplied m
K 90/600.1	90	600	0.75	8.7	16.0
			0.88	10.2	
			1.00	11.6	
			1.25	14.5	
			1.50	17.4	
K 100/600.1	100		0.75	8.9	
			0.88	10.4	
			1.00	11.9	
			1.25	14.8	
			1.50	17.8	
K 120/600.1	120		0.75	9.4	
			0.88	11.0	
			1.00	12.5	
			1.25	15.7	
			1.50	18.8	
K 130/600.1	130		0.75	9.6	
			0.88	11.3	
			1.00	12.8	
			1.25	16.0	
			1.50	19.2	
K 145/600.1	145		0.75	9.8	
			0.88	11.5	
			1.00	13.1	
			1.25	16.3	
			1.50	19.6	
K 160/600.1	160	0.75	10.2		
		0.88	12.0		
		1.00	13.6		
		1.25	17.0		
		1.50	20.4		

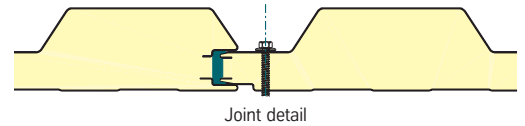
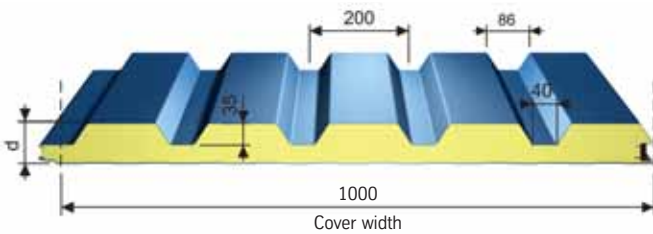
Also available as an acoustic liner tray.



# Hoesch Thermowand TL.

Well-proven, used worldwide.

Quality characterised by a low dead weight, large spans and excellent thermal insulation.



Designation of building element	Element thickness d	Material thickness		Max. length supplied	Weight	Thermal resistance R*	Heat transfer coefficient U*	Weighted sound reduction index R <sub>w</sub>
		Outer sheet <sup>1)</sup> t <sub>N</sub>	Inner sheet <sup>1)</sup> t <sub>N</sub>					
	mm	mm	mm	m	kg/m <sup>2</sup>	m <sup>2</sup> K/W	W/m <sup>2</sup> K	dB
Hoesch Thermowand TL	66	0.50	0.40	24	10.7	1.97	0.47	25
		0.63	0.50		12.5			
	96	0.50	0.40		12.0	3.25	0.29	
		0.63	0.50		14.1			

\* R and U values as per DIN EN ISO 6946. Officially approved by the building inspectorate (Z-10.4-345).

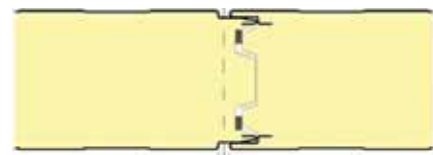
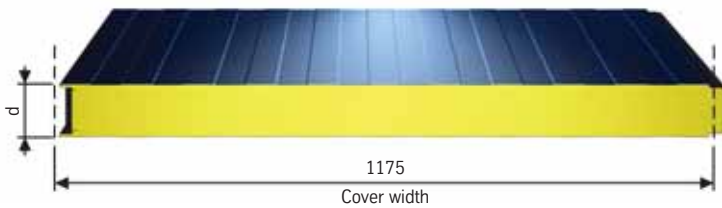
# Hoesch Thermowand and Hoesch Thermowand 1000.

The classics among sandwich façade elements with visible fastening.

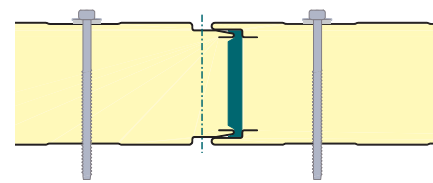
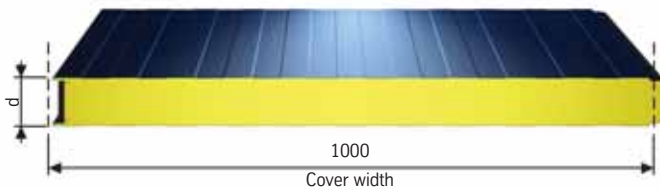
The most cost-effective material for conventional building of industrial halls.  
Cover width 1000 or 1175 mm.



ClassicLine



Joint design for an element thickness of up to 120 mm



Joint design for an element thickness of up to 100 mm

Designation of building element	Element thickness d	Material thickness		Max. length supplied	Weight	Thermal resistance R*	Heat transfer coefficient U*	Weighted sound reduction index R <sub>w</sub>
		Outer sheet <sup>1)</sup> t <sub>N</sub>	Inner sheet <sup>1)</sup> t <sub>N</sub>					
Hoesch Thermowand/ Hoesch Thermowand 1000	40	0.50	0.40	20	9.3	1.56	0.58	25
	60				10.2	2.36	0.39	
	80				11.1	3.16	0.30	
	100				12.0	3.96	0.24	
	120 <sup>2)</sup>				12.9	4.76	0.20	

<sup>1)</sup> Other material thicknesses for cover sheets on request. Officially approved by the building inspectorate (Z-10.4-345).

<sup>2)</sup> Hoesch Thermowand 120 has a special joint geometry without a factory-applied sealing strip.

Profiling of cover sheet	Slightly profiled (L)	Microprofiled (M)
Outer sheet	●	●
Inner sheet	●	

● = available

**ThyssenKrupp Bausysteme GmbH**  
Hammerstrasse 11  
D-57223 Kreuztal, Germany  
Phone: +49 / 27 32 / 599 1 221  
Fax: +49 / 27 32 / 599 1 219  
E-Mail: [export.tks-bau@thyssenkrupp.com](mailto:export.tks-bau@thyssenkrupp.com)  
Internet: [www.tks-bau.com](http://www.tks-bau.com)



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