Technical data sheet

Gutex Thermowall 5in1

Gutex Thermowall 5in1 is the universal insulation board for five areas of application.



Ingredients

- Untreated fir and spruce wood
- 4.0 % PUR resin (polyurethane resin)

Waste disposal

- Waste code numbers according to AVV: 030105, 170201

Technical data

Bulk density ρ [kg/m³]	~ 150
Nominal thermal conductivity λ_D [W/mK]	0.040
Vapour diffusion μ	4
Compressive stress/strength [kPa]	≥ 100
Tensile strength perpendicular to the panel plane [kPa]	≥ 10
Short-term water absorption [kg/m²]	≤ 1
Air flow resistivity [kPa s/m²]	≥ 60
Specific heat capacity [J/kgK]	2,100
Maximum working temperature [°C]	110
Fire reaction Euro Class as per EN 13501-1	E
Product standard	EN 13171:2012+A1:2015
Approval number	ETA-10/0287, ETA-10/0288
Board designation	WF-EN13171-T5-WS1,0-DS(70,-)3-CS(10/Y)100-TR10-MU4-AFr60

CE 04 036-03.304 natureplus 0104-0604-012-2 PEFC PEFC/04-34-0006

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Product details

Joint type	tongue + groove					
Thickness [mm]	40	60		80		100
Length × width [mm × mm]	1900 x 600		2550 x 600	1900 x 600	2550 x 600	1900 x 600
Cover dimensions: length × width [mm × mm]	1880 x 580		2530 x 580	1880 x 580	2530 x 580	1880 x 580
Coverage: square metres per panel [m²]	1.09		1.47	1.09	1.47	1.09
m²/Piece(s)	1.14		1.53	1.14	1.53	1.14
Weight per board [kg]	6.54	9.81	13.23	13.08	17.64	16.35
Weight per m² [kg]	6.00	9.00		12.00		15.00
Items per pallet	54	36		26		20
Square metres per pallet [m²]	61.56	41.04	55.08	29.64	39.78	22.80
Weight per pallet [kg]	390		520	380	500	360
Nominal thermal resistance R_D [m²K/W]	1.00	1.50		2.00		2.50
sd value [m]	0.16	0.24		0.32		0.40

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Product details

Joint type	tongue + groove					
Thickness [mm]	100	120	140	160	180	200
Length × width [mm × mm]	2550 x 600	1900 x 600				
Cover dimensions: length × width [mm × mm]	2530 x 580	1880 x 580				
Coverage: square metres per panel [m²]	1.47	1.09				
m²/Piece(s)	1.53	1.14				
Weight per board [kg]	22.05	19.62	22.89	26.16	29.43	32.7
Weight per m² [kg]	15.00	18.00	21.00	24.00	27.00	30.00
Items per pallet	20	18	14	12		10
Square metres per pallet [m²]	30.60	20.52	15.96	13.68		11.40
Weight per pallet [kg]	480	390	360	350	390	360
Nominal thermal resistance R_D [m²K/W]	2.50	3.00	3.50	4.00	4.50	5.00
sd value [m]	0.40	0.48	0.56	0.64	0.72	0.80

Product details

Joint type	flush-mount				
Thickness [mm]	60			80	
Length × width [mm × mm]	3000 x 1250	3000 x 2500	6000 x 2500	3000 x 2500	
Cover dimensions: length × width [mm × mm]	3000 x 1250	3000 x 2500	6000 x 2500	3000 x 2500	
Coverage: square metres per panel [m²]	3.75	7.5	15	7.5	
m²/Piece(s)	3.75	7.5	15	7.5	
Weight per board [kg]	33.75	67.5	135	90	
Weight per m² [kg]	9.00			12.00	
Items per pallet	15		10	12	8
Square metres per pallet [m²]	56.25	112.50	75.00	150.00	90.00	60.00
Weight per pallet [kg]	530	1,100	762	1,500	898	626
Nominal thermal resistance R_D [m²K/W]	1.50			2.00		
sd value [m]	0.24			0.32		

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Areas of application

- Plasterable insulation board for Thermowall ETICS on timber frame constructions and solid timber elements without rear ventilation, from 60 mm thickness
- For exterior cladding directly on wooden frame constructions and on solid wood elements behind rear-ventilated facades
- As rainproof underlay (UDP-A) from 60 mm thickness
- Compression Resistant Insulation Layer to accommodate services
- Interior insulation of exterior walls for direct plastering

Advantages

- Only 1 product for 5 areas of application
- Lower storage costs
- Simpler workflows, resulting in higher productivity and time savings
- Blow-in insulation suitable for panel thicknesses from 60 mm
- Wood is a sustainable raw material → recyclable
- Made in Germany (Black Forest)
- Biologically safe (natureplus® certified)

Processing instructions

General

- Lay the boards with the labelled side facing outwards.
- Lay the boards horizontally, ensuring a precise fit and tight joints.
- All butt joints between boards must be backed up. Cross joints at panel joints are permitted if
  - the wall elements are connected in a force-fitting and form-fitting manner (tension, compression and shear resistant) or, in the case of roof elements, are immediately secured with counter battens.
  - fasteners for attaching the insulation boards are placed sufficiently close to the respective board edge.
- Damaged boards must not be used.
- Boards cannot be used for structural purposes. Gutex Thermowall 5in1 is not a load-bearing component (e.g. snow loads).
- Increased moisture loads on the room side must be avoided.
- Rainwater runoff can contaminate adjacent components, especially during the construction phase, due to fibre abrasion or other contaminants. Appropriate water drainage must be ensured.
- Gutex wood fibre insulation boards can be exposed to temperatures of up to 110°C for extended periods of time. If higher temperatures are to be expected, e.g. in the case of solar pipes, additional measures must be taken.
- The minimum distances required between combustible building materials and chimneys, etc. are specified in the relevant fire regulations and must be observed.
- Dust extraction in accordance with valid regulations.
- Can be used in conjunction with Gutex Thermofibre blow-in insulation. For more information, visit Gutex informs you: Media & downloads for your wood fibre insulation

ETICS

- For detailed and comprehensive installation instructions on board installation, fixings and render application, see the brochure "Thermowall ETICS - The ecological external thermal insulation composite system".

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Installation Level

- Apply a single layer of fermacell GF 12.5 mm interior panelling over the entire surface without leaving any gaps (recommendation: horizontal installation). Use the pistol cut around the windows.
- Fermacell GF must be fastened with staples to a structurally sound substrate:
  - On wood-based panel (e.g. OSB, plywood) d ≥ 15 mm + Gutex Thermowall 5in1 + fermacell GF d = 12.5 mm, staple: 2.0 x 85 mm (back width 27 mm)
  - On wood-based panels (e.g. OSB, plywood) d ≥ 20 mm + Gutex Thermowall 5in1 + fermacell GF d = 12.5 mm, staples: 2.0 x 90 mm (back width 27 mm)
- Vertical staple spacing ≤ 150 mm
- Horizontal staple spacing ≤ 400 mm (at the edge of the board ≤ 200 mm)
- Edge distance of the staples to the edge of the board ≥ 25 mm
- Drive in the staples so that they are at least flush with the surface and no more than 1 mm countersunk.
- Staples that are not sufficiently countersunk must be removed and replaced. Do not countersink them retrospectively.
- Formation of panel joints: adhesive joint in accordance with fermacell processing guidelines.

Plasterable insulation board under sloped ceilings

- minimum thickness of Gutex Thermowall 5in1 60 mm
- substructure center-to-center distance ≤ 40 cm, distance of screws (mushroom-headed 60 mm diameter) ≤ 40 cm

Plasterable insulation board inside

- For full, detailed instructions on board installation, fastenings, and render application, see the GUTEX brochure 'Intevio - installation instructions'

Curtain-type rear-ventilated façade

- Maximum centre distance 83.3 cm
- Connections and penetrations must be permanently sealed with the Gutex adhesive system to ensure they are windproof and rainproof.
- 4 months of exposure to the elements
- Fix immediately with rear ventilation battens
- Offset of at least 30 cm
- suitable breathable membrane is recommended, the application advices must be observed

Roof

- Maximum center-to-center distance 90 cm, from 60 mm board thickness roof joint offset by at least 1 rafter center distance
- Rafter gaps are not accessible
- suitable breathable underlay is recommended, the application advices must be observed
- No nail sealing tapes or nail seals required for penetrations through the soft wood fiberboard, contact regional supplier for more details depending on local climatic conditions
- Connections and penetrations must be taped rainproof with the Gutex adhesive system
- In the case of butt joints, penetrations or at the end of the verge, the profile must be sealed at the side
- Temporary roof weatherable for 4 weeks, contact regional supplier for more details depending on local climatic conditions
- All joints > 0.5 mm must be reinforced with the Gutex adhesive system immediately after installation

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- Note the corresponding roof pitch:
  - < 15° cover with suitable sheeting

Roof mounting bracket

Fastening with staples or nails up to 60 mm thick is possible. Further information is available from ITW Befestigungssysteme GmbH. Fasteners must be galvanized or higher. Gutex Thermowall 5in1 can also be fastened with approved screws. Please contact the relevant manufacturers.

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