

Technical data sheet

Gutex Ultratherm



Gutex Ultratherm is the sarking board with unique rain protection thanks to its patented tongue and groove profiling – with a high insulation value.

Ingredients

- Untreated fir and spruce
- 4.0 % PUR resin
- 0.75 % paraffin

Disposal

- Waste code numbers as per AVV 030105, 170201

| | |
|---|---|
| Bulk density ρ [kg/m ³] | ~ 180 |
| Nominal thermal conductivity λ_D [W/mK] | 0.042 |
| Vapour diffusion μ | 3 |
| Compressive stress/strength [kPa] | ≥ 150 |
| Tensile strength perpendicular to the surface [kPa] | ≥ 20 |
| Short-term water absorption [kg/m ²] | ≤ 1 |
| Air flow resistivity [kPa s/m ²] | ≥ 100 |
| Specific heat capacity [J/kgK] | 2100 |
| Maximum working temperature [°C] | 110 |
| Fire reaction Euro Class as per EN 13501-1 | E |
| Product standard | EN 13171 |
| Board type as per EN 622-4 | SB.E |
| Board designation | WF-EN 13171-T5-WS1,0-CS(10/Y)150-TR20-MU3-AF _r 100 |



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| Joint type | Tongue and groove | | |
|--|-------------------|-------|-------|
| Thickness [mm] | 60 | 80 | 100 |
| Length × width [mm × mm] | 1780 × 600 | | |
| Actual coverage: Length × width [mm × mm] | 1749 × 569 | | |
| Actual coverage: Square metres per board [m ²] | 1.00 | | |
| m ² /Piece(s) | 1.07 | | |
| Weight per board [kg] | 11.50 | 15.40 | 19.20 |
| Weight per m ² [kg] | 10.80 | 14.40 | 18.00 |
| Piece(s)/Pallet | 36 | 26 | 20 |
| Square metres per pallet [m ²] | 38.45 | 27.77 | 21.36 |
| Weight per pallet [kg] | 490 | 430 | 390 |
| Nominal thermal resistance R _D [m ² K/W] | 1.40 | 1.90 | 2.35 |
| sd value [m] | 0.18 | 0.24 | 0.30 |

| Joint type | Tongue and groove | | |
|--|-------------------|-------|-------|
| Thickness [mm] | 120 | 140 | 160 |
| Length × width [mm × mm] | 1780 × 600 | | |
| Actual coverage: Length × width [mm × mm] | 1749 × 569 | | |
| Actual coverage: Square metres per board [m ²] | 1.00 | | |
| m ² /Piece(s) | 1.07 | | |
| Weight per board [kg] | 23.10 | 26.90 | 30.80 |
| Weight per m ² [kg] | 21.60 | 25.20 | 28.80 |
| Piece(s)/Pallet | 18 | 14 | 12 |
| Square metres per pallet [m ²] | 19.22 | 14.95 | 12.82 |
| Weight per pallet [kg] | 420 | 390 | |
| Nominal thermal resistance R _D [m ² K/W] | 2.85 | 3.30 | 3.80 |
| sd value [m] | 0.36 | 0.42 | 0.48 |



Product information

Gutex Ultratherm

Areas of use

- Additional insulation in old and new buildings
- As rainproof sarking
- For external boarding on stud frame constructions (rainscreen facades)
- UDP-A according to ZVDH regulations
- As per the associations' leaflet

Advantages

- High dimensional accuracy for time-saving and simple installation
- Single-layer, homogeneous bulk density profile
- Hail resistance (TÜV Rheinland confirms highest hail protection class HW5)
- Windproof
- Rainproof from 15° roof pitch without additional covering or taping of the board joints
- Can be exposed to the elements for 3 months as a temporary roof
- No nail sealing tapes or nail seals necessary
- Additional thermal insulation
- Minimisation of thermal bridges
- Outstanding heat storage capacity → impressive summer heat protection
- Improvement of sound insulation
- Moisture-regulating
- Vapour-permeable
- Guarantee deposited with the Central Association of the German Roofing Trade
- Wood as the sustainable raw material → recyclable
- Manufactured in the direct vicinity of Switzerland (Waldshut, Black Forest)
- Ecologically safe (natureplus® certified)
- Practical: Combination of different thicknesses within the entire thickness range possible, e.g. when over-insulating the eaves

Installation instructions

- Store and work with the boards in a dry place
- Install the boards with the labelled side facing outwards
- Adhere to rafter unit spacing:

| Panel thickness in mm | Maximum rafter axial dimension in cm |
|-----------------------|--------------------------------------|
| 60 | 110 |
| 80/100/120/140/160 | 125 |

- Install the boards horizontally; they must fit accurately and be joint-tight
- Gaps between rafters are not accessible
- Fasten immediately with counterlathing
- No nail sealing tapes or nail seals necessary
- Cross joints are not permitted
- Do not install damaged boards

- The boards are generally installed at right angles to the rafters
- Joint offset from row to row by at least 1 rafter unit spacing, but at least 40 cm
- Joints and penetrations must be taped rainproof with the Gutex adhesive system
- Install with rising tongues
- The board cannot be statically supported
- Gutex Ultratherm is not a load-bearing component (e.g. snow loads)
- Increased levels of moisture inside must be avoided
- Rainwater run-off, especially during the construction phase, can contaminate adjacent building components through fibre abrasion or other impurities. Ensure appropriate water drainage.
- Gutex wood fibre insulation boards can be exposed to temperatures of up to 100 °C, even over a longer period of time. If higher temperatures are to be expected, e.g. with solar pipes, additional steps must be taken.
- The required minimum clearances from combustible building materials to chimneys etc. are specified in the relevant fire protection regulations and must be adhered to.
- Note the legal requirements for handling wood dust

Note for the following roof pitches

| | |
|-------|---|
| < 15° | cover with suitable membrane |
| ≥ 15° | no bonding of board joints necessary, provided the standard roof pitch is not undercut by more than 8°. |

Hot air welding – guidelines

- No direct flame application; hot air only (hot air device)
- Set hot air blower temperature < 350°
- The hot air device must not be left in one place for longer than 7-10 sec
- If discolouration is seen on the surface of the wood fibre insulation board, the area must be checked and, if necessary, removed

These guidelines protect Gutex boards (not including Gutex Thermoflex or Gutex Thermofibre) from spontaneous combustion; the guidelines for the membranes must also be followed.

Fastening tables when using sarking

The fasteners used must be galvanised at minimum.

For deviating designs, the 'Screw dimensioning' form can be found at www.gutex.de/service/bemessung-verbindungsmitel

| Gutex Ultratherm ≤ 60 mm and building height ≤ 10m inland | | | | | | | | |
|---|------------------------|-----------|--|-----|-----|--|-----|-----|
| Rafter unit spacing ≤ 85 cm Counterlathing 60 × 40 | | | Spacing for Paslode 4.2 × 160 groove RoundDrive® in cm | | | Spacing for haubold or Paslode 4.6 × 160 smooth (bare or galvanised) in cm | | |
| Roofing load kN/m ² | Snow kN/m ² | Wind zone | Roof pitch | | | Roof pitch | | |
| | | | 15° | 30° | 45° | 15° | 30° | 45° |
| 0,30 | ≤ 0,85 | Wz 1 | 70 | 40 | 45 | 45 | 40 | 45 |
| | | Wz 2 | 50 | 40 | 45 | 35 | 35 | 30 |
| | | Wz 3 | 35 | 35 | 35 | 25 | 25 | 25 |
| | | Wz 4 | 25 | 25 | 25 | 20 | 15 | 15 |
| 0,60 | ≤ 0,85 | Wz 1 | 60 | 30 | 30 | 55 | 30 | 30 |
| | | Wz 2 | 55 | 30 | 30 | 40 | 30 | 30 |
| | | Wz 3 | 40 | 30 | 30 | 25 | 25 | 25 |
| | | Wz 4 | 30 | 25 | 25 | 20 | 20 | 20 |
| 0,95 | ≤ 0,85 | Wz 1 | 45 | 25 | 15 | 45 | 25 | 15 |
| | | Wz 2 | 45 | 25 | 15 | 45 | 25 | 15 |
| | | Wz 3 | 45 | 25 | 15 | 30 | 25 | 15 |
| | | Wz 4 | 30 | 25 | 15 | 20 | 20 | 15 |

Source: ITW: we cannot guarantee the accuracy of the information in the tables.

Details



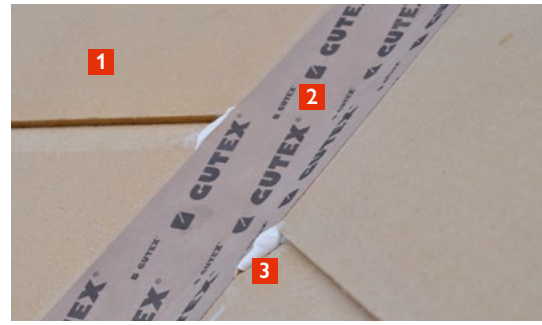
Penetration joint

- 1** Gutex Ultratherm
- 2** Gutex adhesive system
- 3** Gutex caulking



Ridge

- 1** Gutex Ultratherm
- 2** Sarking
- 3** Counterlathing

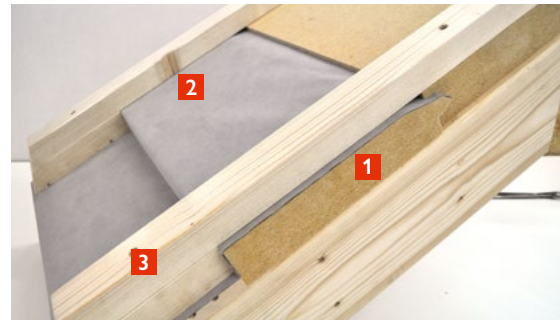


Verge

- 1 Gutex Ultratherm
- 2 Gutex caulking
- 3 Sarking
- 4 Counterlathing

Valley

- 1 Gutex Ultratherm
- 2 Gutex adhesive system
- 3 Gutex caulking



Eaves 1. Variant

- 1 Canopy formwork
- 2 Gutex Ultratherm
- 3 Sarking
- 4 Rafter

Eaves 2. Variant

- 1 Gutex Ultratherm
- 2 Sarking
- 3 Counterlathing (doubled)

