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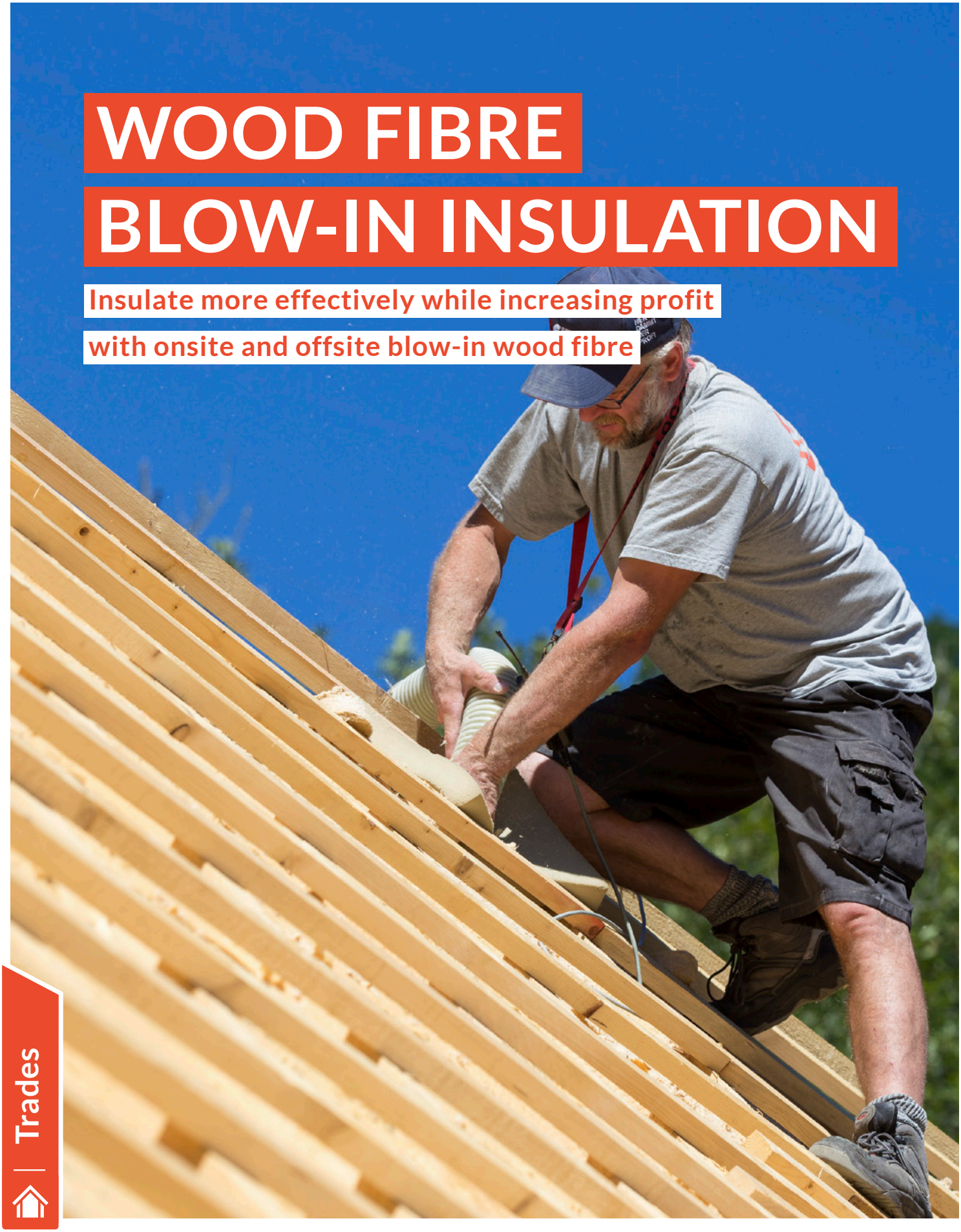
GUTEX Thermofibre®

WOOD FIBRE BLOW-IN INSULATION

Insulate more effectively while increasing profit with onsite and offsite blow-in wood fibre



Trades

A product solution from

GUTEX®
NATURALLY MADE FROM WOOD

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1. PRODUCT SOLUTION

GUTEX Thermofibre® is the future of blow-in wood fibre cavity insulation

Blow-in wood fibre insulation provides homeowners, occupants and builders with the distinct advantages of ecological wood fibre. For users of the spaces, it delivers wholesomeness and comfort while increasing value and preserving that value for years to come. You, the building contractor, benefit from the superb workability of the product, satisfied customers and an improved bottom line. With every job!

Consistent high-quality

No other blow-in wood fibre insulation has the consistently high degree of quality that GUTEX Thermofibre® has. For this reason, it delivers the most dependable performance and is the most economical solution, for both you and your customers. Why does it outperform others? Because it provides very uniform thermal insulation, thanks to its homogenous density, and maximum resistance to settling due to its better interlocking, stronger fibres.

On the production line, GUTEX Thermofibre® is not only the most consistent, it actually flows so smoothly, you'll be amazed at your process' throughput quality and speed. Thanks to GUTEX Thermofibre®'s maximum resistance to settling at densities above 38 kg/m^3, the wood fibre-filled prefabricated cassetes easily endure impact, shaking and vibration.

Very economical

- Quicker installation
- Lower labour costs
- No waste and no cost for waste disposal
- Less storage space required
- Significantly lower price for the trade – blow-in insulation from renewable raw materials such as wood fibre

Dependable performance

With blow-in wood fibre, you can fill cavities uniformly and completely right up to the last nook and cranny! As a result you achieve:

- Uniformly installed insulation
- Thermal-bridge-free joints

1.1 Technical information

Technical information	
Package Length x width x height (mm)	800 x 400 x 330
Weight per package	15 kg
Bales (packages) per pallet	21
Weight per pallet (kg)	330
Blow-in density (kg/m³) Unenclosed Enclosed (cavities) 25	 25-30 29-50
Nominal thermal conductivity λ_D (W/mK)	0.039
Thermal conductivity λ (W/mK)	0.040
Vapour diffusion factor (μ)	½
Air flow resistivity (kPa·s/m2)	2100
Fire reaction Euro Class as per DIN EN 13501-1	E

German disposal category: A2 (treated wood; without non-halogenated organic compounds); code number as per AVV:030105; 170201

1.2 Applications and standard assembly

- Cavity insulation: joists /rafters
- Cavity insulation: timber frame and prefab cassettes
- Cavity insulation: partition walls
- Interior insulation of walls
- Interior insulation of ceilings
- As per DIN 4108-10: DZ, DIzk, WH, WIzk, WTR

2. INSTALLATION STEPS

2.1 General guidelines

In order to install GUTEX Thermofibre®, you must receive training from us.
If you have until now not attended our training workshop, feel free to register. We would gladly welcome you!
For workshop scheduling, visit: www.gutex.de/schulung

NOTE

Before beginning, know the fire, thermal and moisture protection related requirements and integrate them in planning and execution.
Your installation must be air and wind tight.

2.2 Prepping at the building site

To ensure your installation goes smoothly, prepare the building site before you begin work. Considerations include:

- Sufficient space for motor vehicles, blow-in equipment and materials
- Tidy, broom-swept work areas
- Accessible cavities
- All installation work by other trades in your installation areas and spaces must be completed
- No restrictions to your work due to other tradespeople

- Use scaffolding to work at any heights above 3.5 metres
- Wear a FFP2 or similar dust mask and protective clothing
- Seal doors and openings leading to other rooms in the areas where you are installing the insulation
- Cover objects to protect them from dust

NOTE

Comply with workplace safety guidelines and regulations at all times!

- Electrical power requirements:
  - For 400-volt blow-in machines: 16 A 5-pole Euro-CEE plug with C 16 neutral and earth
  - For 230-volt blow-in units: 16 A (C 16) earthed
- All electrical leads must be at least 2.5 mm
- Avoid using extension cords longer than 25 m

NOTE

Comply with applicable electrical code guidelines and regulations!

2.3 Applicable standards and codes

To achieve the best thermal insulation results, you require the following:

Cavities should be as tight and dust-free as possible

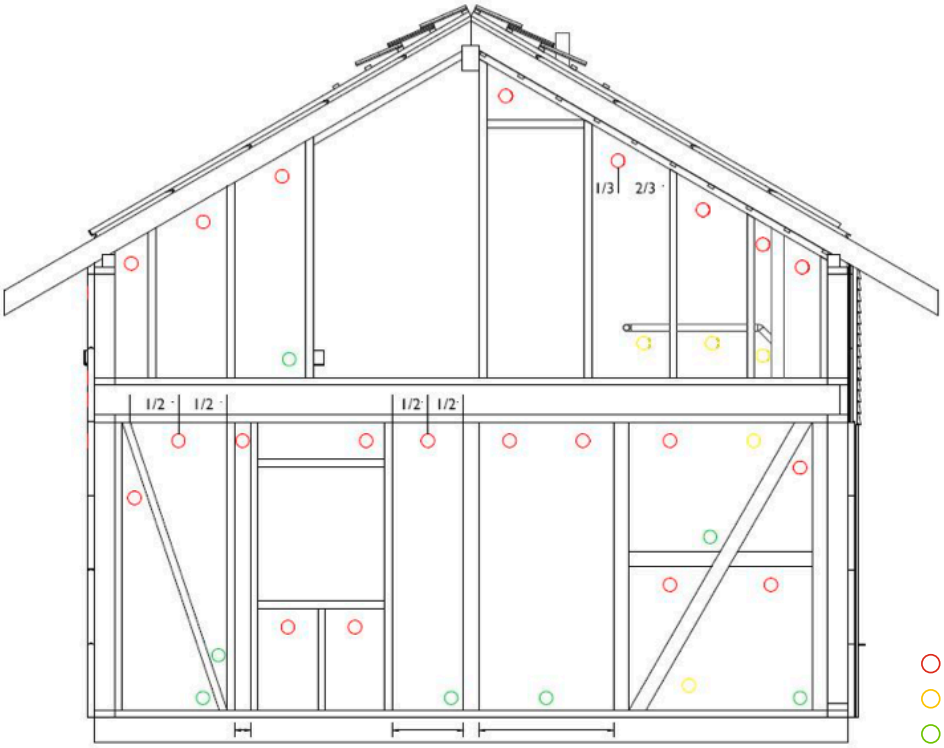
- Seal all joints less than 1 cm wide with GUTEX Thermoflex®
- Sheathing or wall boards must have the ability to withstand the force of the blown-in material; if you have questions about the boarding's strength, use GUTEX Thermoflex® instead
- Cavities receiving blow-in insulation have indications on the sides from which they are filled; any in-wall or in-cavity electrical, plumbing or other installations must be clearly indicated
- Insulate cavities greater than .25 m² as well as greater than 10 cm insulation width and thickness with GUTEX Thermoflex® before beginning
- If using a breather membrane:
  - Use only breather membranes approved by the manufacturer for use with blow-in applications; and follow the manufacturer's installation guidelines closely
  - GUTEX recommends using woven and fibre-reinforced breather membranes
  - Apply the breather membrane tightly, fastening it with adhesive or staples placed closely spaced
  - Before beginning with the blow-in operation, install counter battens (strapping) no greater than 40 cm apart
- Wait to perform any render or spackling until the blow-in insulation work is complete, otherwise cracking or other damage to the plaster may occur

NOTE

Comply with fire protection guidelines and regulations for recessed lighting and flues, chimneys etc.

2.4 Blow-in holes

Position and hole size are essential to proper, effective and quick cavity filling.



- Blow-in hole
- Additional blow-in holes
- Control holes

- The blow-in holes should have a minimum diameter of 106.5 mm, and they should be a the centre of the cavity, 15-20 cm from the top of the cavity.
- Insulate areas less than 10 cm with GUTEX Thermoflex® prior to beginning
- For narrow, horizontal cavities under 40 cm in height, cut a hole in the middle on one side
- When insulating gables and angular spaces, cut the hole 1/3 from the top of the long side
- If there are braces in the framing, position the hole as high as possible
- If the space is wider than 80 cm, cut two holes near the top

2.5 Blow-in density

Position and hole size are essential to proper, effective and quick cavity filling.

Insulation thickness/cavity	Up to 18 cm	19 to 24 cm	25 to 30 cm	31 to 40 cm
Roof/ceiling up to 45°	32-35 kg/m³			
Roof/ceiling 45° to 60° max. length*	32-35 kg/m³ 6.00 m			
Roof/wall 60° to 90° max. length*	32-35 kg/m³ 3.5 m		3 m	
Prefabrication and transport	38 kg/m³			
Loose fill**	25 kg/m³			

To achieve your targeted insulation performance:

- Fill the cavity uniformly with GUTEX Thermofibre®
- Do not exceed the maximum space width of 80 cm; however, if the space is larger, use two hoses or a blow-in needle (a special attachment)
- Be sure you have a minimum density of 29 kg/m² in the weakest insulated spot

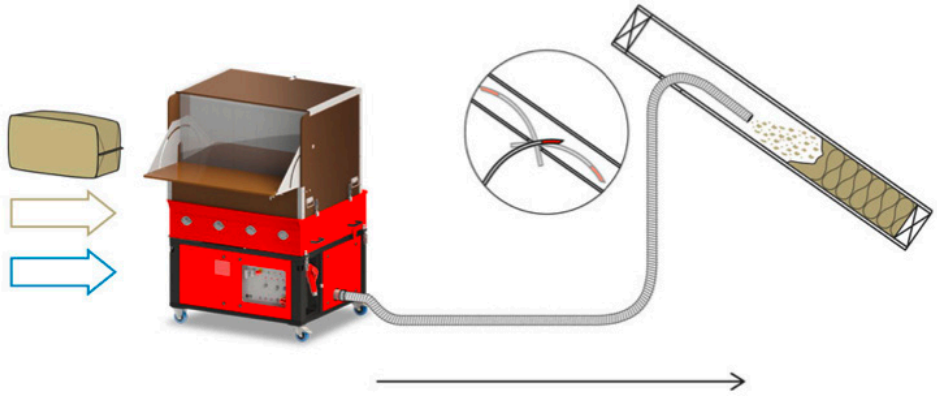
Check the density by:

- Using a suitable test device
- Accurately calculating the necessary quantity of fibre as per volume and with a follow-up check of the actual blown-in amount

3. BLOW-IN PROCEDURE

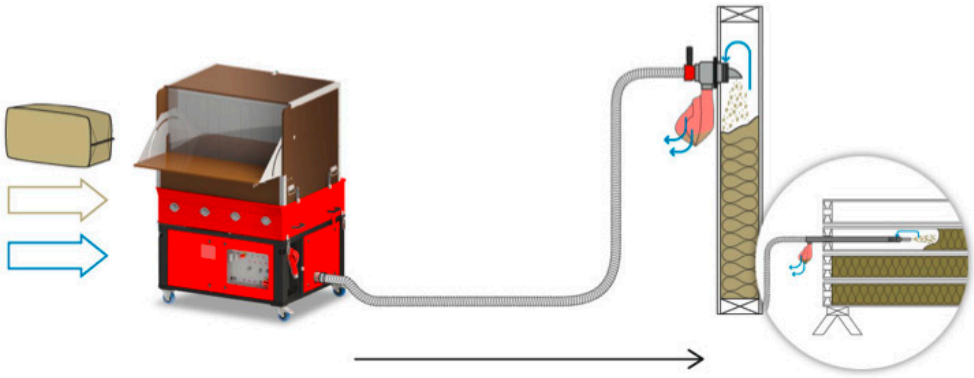
3.1 Enclosed blow-in

This technique involves blowing GUTEX Thermofibre® via hose, blow-in needle through a hole into an enclosed space, completely filling it.



3.2 Enclosed blow-in with air release for air-tight cavities

For walls and similar structural elements, you have the choice of using either a blower nozzle with pressure release or a wand with (air) pressure release. Pressurized air transports, distributes and densifies the fibre. Pressure is controlled via its release from the enclosed space.

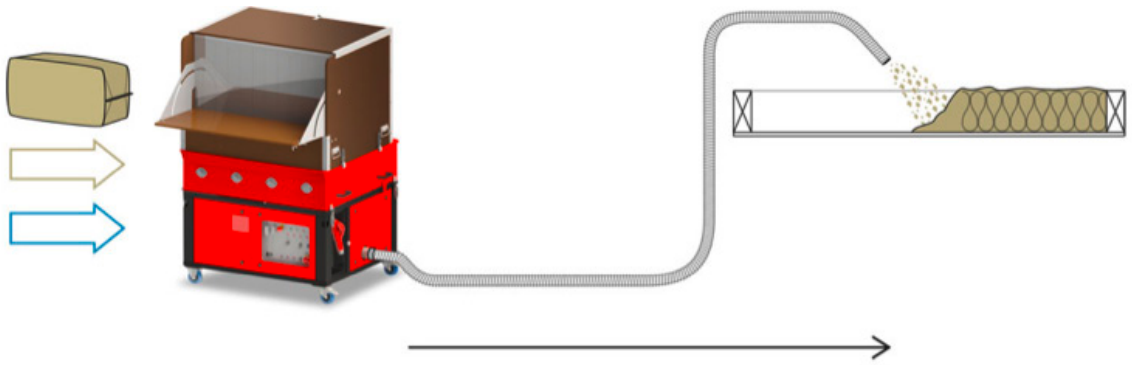


3.3 Loose fill

Loose fill installation involves the filling of a space that is open on the top with GUTEX Thermofibre®, e.g. top storey ceiling in attics.

Please note:

- You may install GUTEX Thermofibre® in open spaces that have pitches not exceeding 10°; if the pitch is greater than 10°, you will have to take measures to prevent slippage due to gravitational force
- Installation loft (thickness) = nominal + 20%
- Use a GUTEX Thermofibre® Lineal to achieve uniform loft height
- To keep dust at a minimum, reduce air pressure and keep the hose end in the insulation while filling the spaces



NOTE

The degree of densification is relative to the air pressure and material volume:

- Increased fibre volume at the same air pressure = lower density
- Increased air pressure with same fibre volume = higher density
- Lower air pressure with same fibre volume = lower density
- Less fibre volume at the same air pressure = higher density
- Increased conveyance distance and/or increased height (during installation) = less density

Note the following guidelines, which are given assuming the machine position is constant:

- The less airtight the space, the lower the density
- The smaller the space, the higher the density
- As the space fills, added fibre increases the density
- Density is always lowest furthest from the opening
- Density is always highest near the blow-in hole

4. BOARDING

Make sure the boarding is suitable otherwise it could become damaged when you blow in the fibre.

4.1 Boarding table

Roof products	Max. On-Centre (cm)	Wall products	Max. On-Centre (cm)
GUTEX Multiplex top® 22 mm	62.5	GUTEX Multitherm® 40 mm	62.5
GUTEX Multiplex Top® 28 mm	62.5	GUTEX Multitherm® 60 mm	83.3
GUTEX Multiplex Top® 35 mm	85	GUTEX Multitherm® 80 mm	83.3
		GUTEX Multitherm® 100 mm	83.3
GUTEX Ultratherm® 50 mm	110	GUTEX Multitherm® 120 mm	83.3
GUTEX Ultratherm® 60 mm	110	GUTEX Multitherm® 140 mm	83.3
GUTEX Ultratherm® 80 mm	125	GUTEX Multitherm® 180 mm	83.3
GUTEX Ultratherm® 100 mm	125	GUTEX Multitherm® 200 mm	83.3
GUTEX Ultratherm® 120 mm	125		
GUTEX Ultratherm® 140 mm	125	GUTEX Thermowall®-gf 40 mm	62.5
GUTEX Ultratherm® 160 mm	125	GUTEX Thermowall®-gf 60 mm	83.3
GUTEX Multitherm® 60 mm	90	GUTEX Thermowall® 80mm N+F	83.3
GUTEX Multitherm® 80 mm	90	GUTEX Thermowall® 100 mm N+F	83.3
GUTEX Multitherm® 100 mm	90	GUTEX Thermowall® 120 mm N+F	83.3
GUTEX Multitherm® 120 mm	90	GUTEX Thermowall® 140 mm n+F	83.3
GUTEX Multitherm® 140 mm	90	GUTEX Thermowall® 160 mm N+F	83.3
GUTEX Multitherm® 160 mm	90	GUTEX Thermowall® 180 mm N+F	83.3
GUTEX Multitherm® 180 mm	90		
GUTEX Multitherm® 200 mm	90	GUTEX Thermowall®-NF 60 mm	62.5

The suitability of the products for individual, unique applications is not guaranteed. Although all of the information presented in the table was current at the time of its publication (12/2018), the publication of superseding information renders the old information invalid.

5. ACCESSORIES

GUTEX Lochsäge HF mit Auswurf/ hole saw w. ejector Ø 106.5 mm

We designed the GUTEX HF-A Hole Saw specifically for cutting holes in rigid wood fibre insulation. Its carefully configured, thin teeth significantly reduce cutting time. In addition, the GUTEX HF-A Hole Saw cuts so cleanly that the cut-out fits tightly back into the hole, allowing you to easily seal the opening once you have blown in the insulation.

Mark the position of the hole with a line to aid later resealing.

Make sure the ejector is closed. Then, press the GUTEX HF-A hole saw moderately against the board and turn the drill on.

Release ejector by turning the blade.

Pull the cutting blade back towards the drill and remove the cut-out core.

Apply wood glue to either the sides of the opening or the edges of the core.

Reinsert the core,
lining it up with the marks you made prior to cutting the hole. Tap it gently with a hammer and block of wood until it is flush with the surface.

Applications

- Cutting holes in rigid wood fibre insulation
- Not suitable for cutting holes in other materials

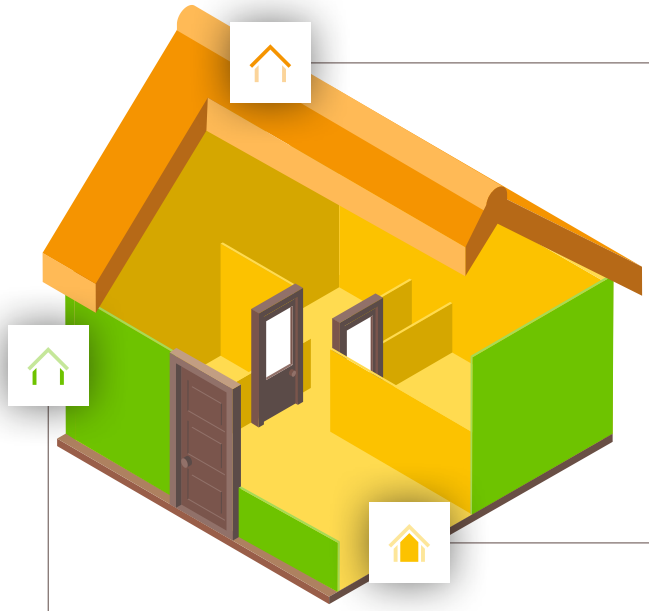
Technical information

Cut-out diameter	106.5 mm
Suggested RPM	400-600
Arbor diameter	13 mm
Max. drilling depth	85 mm

ADVANTAGES

- Faster cutting
- Less dust
- Increased precision for greater uniformity of holes
- Makes cores reusable
- Eliminates need to purchase and stock plugs
- Resharpens, even at the construction site

6. APPLICATIONS AND SOLUTIONS



Roof

- ☑ Tecadio® GUTEX roof refurbishment system
- Above-rafter insulation
- Sarking boards
- Flat roof insulation
- Cavity insulation (GUTEX Thermoflex®)
- **Cavity insulation (GUTEX Thermofibre® blow-in insulation)**

Interior

- ☑ Intevio® GUTEX interior insulation system
- Vapour permeable underlay installed between rafters from interior
- Rafter underside insulation boards
- Insulation under screed (dry / wet)
- Top storey ceiling
- Suspended ceiling
- Solid wood flooring / Solid wood plank flooring
- Service cavity insulation course
- Partition walls
- Cavity insulation (GUTEX Thermoflex®)
- **Cavity insulation (GUTEX Thermofibre® blow-in insulation)**

Exterior Wall

- ☑ Thermowall® ETICS (External Thermal Insulation Composite System)
- Render
- Rainscreen
- Brick facing
- ☑ Durio®, the GUTEX system for unique facade design
- ☑ Implio® window integration system
- Cavity insulation (GUTEX Thermoflex®)
- **Cavity insulation (GUTEX Thermofibre® blow-in insulation)**

NOTES

ADVANTAGES

- Wholesome indoor environment
- Ideal acoustic insulation
- Insulation in summer
- Insulation in winter
- Systems deliver greater dependability
- Sustainability
- Service

Certified quality

All GUTEX products are manufactured from only fir and spruce obtained from the Black Forest using sustainable forestry practices goes – truly the best basis for high quality wood fibre insulation. In addition, the natureplus® certificate indicates the product is biologically safe and manufactured using environmentally safe techniques and practices. It also verifies its suitability and usability for the specified applications.

OUR PRODUCT AND SERVICE DESIGNATIONS

Roof | Wall | Interior

GUTEX®
NATURALLY MADE FROM WOOD

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