

Technical data sheet

Version: 11/2018

THERMO JUTE 100



The insulation made of jute fibres

Description	THERMO JUTE 100												
European Technical Approval	ETA-14/0479												
Reference number	130701-044-01												
Components	85-90 % jute fibres, 8-10 % biopolymer supporting fibres on PET basis, 2-5 % soda as fire proofing												
Dimensional variations													
Length and Width <div>EN 822:2013</div>	Length: ± 2 % Width: ± 1.5 %												
Thickness <div>EN 823:2013</div>	- 4 mm and + 10 mm / + 10 % <div>complies with T3 EN 13171:2012, table 1</div>												
Bulk Density <div>EN 1602:2013</div>	34 - 40 kg / m³												
Tensile strength parallel to the mat plane <div>EN 1608:2013</div>	≥ 30 kPa												
Energy saving and heat insulation													
Nominal thermal conductivity <div>$\lambda_{D(23,50)}$ EN 12667:2001</div>	0.038 W/(m•K)												
Resistance to heat admission thickness [mm] <div>$R_{D(23,50)}$ [m²•K/W]</div>	30 0.79	40 1.05	50 1.32	60 1.58	80 2.11	100 2.63	120 3.16	140 3.68	160 4.21	180 4.74	200 5.26	220 5.79	
Conversion factors for the moisture content (Conversion according to DIN EN ISO 10456:2007 + AC:2009)	<div>F_{m1} (dry to 23°C/ 50%) = 1.02</div> <div>F_{m2} (23°C / 50% to 23°C/ 80%) = 1.00</div>												
Specific thermal capacity c <div>According to EN 12667:2001</div>	2350 J/(kg•K)												
Water vapour diffusion resistance coefficientl μ <div>climate condition 23-50/93 According to EN 12086:2013</div>	1 to 2												
Water absorption <div>EN 1609:2013, process A</div>	≤ 2.0 kg/m²												
Sound insulation													
Length related flow resistance <div>EN 29053:1993</div>	3.4 kPa•s/m2												
Sound absorption (according to EN ISO 354:2003 and EN ISO 11654:1997)	Nominal thickness [mm]	Practical sound absorption coefficient α _p According to EN ISO 11654 Octave middle frequency [f/Hz]								EN ISO 11654			
										Rated sound absorption coefficient α _w	Sound absorption class		
		125	250	500	1000	2000	4000						
		40	0.2	0.5	0.7	0.85	0.9	0.95					
		80	0.45	0.95	1.0	0.95	1.0	1.0					
	160	0.9	1.0	1.0	1.0	1.0	1.0						
Fire protection													
Fire behaviour <div>EN ISO 11925-2:2010</div>	B2, Class E <div>EN 13501-1:2010</div>												
Max. processing temperature [°C]	120 °C												
Hygiene, health and environmental protection													
Resistance against mould fungus <div>EAD, Annex B 846:2013</div>	0 <div>EN ISO</div>												
Delivery form	Mats or rolls												

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Thickness and standard dimensions	<u>Mat thickness 30-220 mm:</u> 1200 x 625 mm 1200 x 580 mm (wooden construction measure) 2400 x 1000 mm	<u>Roll thickness 30-80 mm:</u> Length 6.0 – 10.0 m (depending on thickness) Width 625 mm or 580 mm
Customised manufacturing	We offer customised manufacturing for 40 mats of the same width (between 40 - 120 cm), without any surcharge. Between 20 - 40 mats there is a surcharge of 20 %.	

Description:

- Insulation with the European Technical Approval
- Construction biologically and ecologically certified
- Flexible, mats or rolls made of jute fibres, not resistant to compression
- Durable, robust upcycling product made of jute bags for food
- Second life cycle of natural fibres instead of thermal recycling
- Produced with thermo bonding process and 100 % eco electricity

Characteristics:

- Best thermal insulation due to a low thermal conductivity
- Best heat protection in the summer through high heat storage capacity
- Good sound insulation properties
- Simple processing with the THERMO NATUR insulating knife or common electric cutting tools with opposed serrated knives
- Suitable for DIY
- Humidity regulating due to high moisture absorption capacity
- No nutrient base for rodents and insects

Fields of application:

- Cavity insulation of external and internal walls in timber frame constructions and comparable constructions (WH, WTR, WAB)
- Interior insulation of external walls between a supporting structure (WI)
- Insulation between the rafters and wooden joists as well as in constructions with cavities (DZ)
- Cavity insulation between sleepers in the floor and comparable substructures (DZ)
- Insulation on accessible, not passable top floor ceilings
- Interior insulation of ceiling or roof, e.g. insulation under the supporting structure (e.g. rafters), suspended ceiling (DI)

General information:

- THERMO JUTE 100 is to be stored and processed in dry conditions
- Store upright
- To ensure the installation is achieved without gaps (joints), an oversize in length and width of each 10 – 30 mm shall be observed
- The clamping effect depends on the insulation thickness, the rafter spacing, the rafter surface and the roof pitch. If required, the mats can be fixed to the rafters with a stapler, also used for fixing the vapour barrier.
- After installing the insulation, the compartments of the thermal envelope must be closed immediately with a vapour barrier.

2

This Technical Data Sheet reflects the technical conditions at the time of going to press and loses its validity when a new edition is issued. It is valid in the context of other THERMO NATUR GmbH & Co. KG documentation.

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