

Technical data sheet

Version: December 2014

THERMO HEMP PREMIUM

The insulation made of hemp fibres



Description		THERMO HEMP PREMIUM												
European Technical Approval		ETA-05/0037												
Reference number		130701-040-01												
Components		85 – 90 % hemp fibres, 8 – 10 % bi-component fibres PE-based, 2 – 5 % soda ash fire proofing												
Dimensional variations														
Length and Width		EN 822:1994	Length= ± 2 % Width: ± 1.5 %											
Thickness		EN 823:1994	- 5 % / - 5 mm and + 20 mm / + 20 % complies with EN13162:2008, table 1											
Bulk Density		EN 1602:1996	28 – 46 kg/m³											
Dimensional stability (48h, 70°C, 50 rel. humidity)		EN 1604:1996	Length and width max. ± 1 % Thickness max. - 5 / +10 %											
Tensile strength parallel to the mat plane		EN 1608:1996	> 2 x net weight											
Energy saving and heat insulation														
Thermal conductivity		EN 12667:2001												
Metered Value of thermal conductivity $\lambda_{10, dry}$		0.0396 W/(m·K) category II												
Nominal thermal conductivity $\lambda_D (23,50)$		0.04 W/(m·K) category II												
Resistance to heat admission R [m²·K/W] with thickness [mm]		0.75 30	1.00 40	1.25 50	1.50 60	2.00 80	2.50 100	3.00 120	3.50 140	4.00 160	4.50 180	5.00 200	5.50 220	
Specific thermal capacity c		2300 J/(kg·K)												
Water vapour diffusion resistance coefficient μ EN 12086:1997		1 to 2												
Water absorption		EN 1609:1996, process A	≤ 4.2 kg/m²											
Sound insulation														
Length related flow resistance		EN 29053 :1993	3.0 kPa·s/m²											
Sound absorption	Nominal thickness [mm]	Practical sound absorption coefficient α_p calculated by EN ISO 11654						EN ISO 11654						
		Octave middle frequency						Rated sound absorption coefficient α_w		Sound absorption class				
		125	250	500	1000	2000	4000							
	40	0.20	0.45	0.70	0.85	0.90	0.95	0.70 (H)		C				
	EN ISO 354:2003 and EN ISO 11654:1997	160	0.85	1.00	1.00	1.00	1.00	1.00	1.00		A			
Fire protection														
Fire behaviour		EN ISO 11925-2:2002	B2, class E EN 13501-1:2007											
Max. processing temperature [°C]		120 °C												
Hygiene, health and environmental protection														
Resistance against mold fungus		EAD	0 EN ISO 846:1997											
Delivery form		Mats or rolls												
Thickness		30 – 220 mm												
Standard dimensions		<u>Mats:</u> 1200 x 625 mm 1200 x 580 mm (wooden construction measure) 2400 x 1000 mm									<u>Rolls :</u> Length 6.0 – 10.0 m (depending on thickness) Width 625 mm or 580 mm			
Customised manufacturing		As of an amount of 40 mats, same width (between 40 cm and 120 cm) we offer customized manufacturing without any surcharge												

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The insulation made of hemp fibres



Description:

- Insulation with the European Technical Approval
- Construction biologically and ecologically certified
- Flexible, mats or rolls made of durable, robust hemp fibres, not resistant to compression
- Produced with thermo bonding process and 100 % eco electricity

Characteristics:

- Best thermal insulation through 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 popular electric cutting tools with opposed serrated knives
- Suitable for DIY
- Humidity regulating due to its high moisture absorption capacity
- No nutrient base for rodents and insects

Fields of application:

- Insulation between the rafters
- Insulation on the rafters and between supporting rafters
- Insulation under the rafters
- Insulation of wooden joists in ceilings
- Insulation of the internal and external walls in timber frame, and post and beam constructions
- Insulation of metal studded constructions or partitions
- Internal dry-lining insulation in the refurbishment of masonry / solid constructions
- Exterior insulation behind cladding

General information:

- THERMO HEMP PREMIUM is to be stored and processed in dry conditions
- Store upright
- To ensure the installation is achieved without gaps (joints) please oversize the insulation with an extra 10 – 30 mm relative to the void to be insulated
- Ensure a suitable sealed vapour check is applied and that the construction is sealed air tightly immediately after the insulation is installed



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