



Negative Carbon Footprint







+ 50 years







Efficiency against cold/ Efficiency against heat



Humidity regulator / persistent insulation



Noise absorption / confort-calm

Sustainable thermal insulation made with grass for a natural confort

Building, renovation, constructive system Internal Thermal Insulation **External Thermal Insulation**







Gramitherm Europe SA

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TECHNICAL DATA

(European Technical Agreement N.ETA-21/0260)



Product composition	$70\%~\mbox{(*-5\%)}$ grass fibers, $20\%~\mbox{(*-5\%)}$ recycled $~\mbox{jute fibers}, 10\%~\mbox{(*-2\%)}$ synthetic binder					
Density	40kg (+/-5) kg/m³					
Thermal conductivity $\boldsymbol{\lambda}$	0.041 W/m.K					
Phase shift time	8h (240mm thickness)					
Specific heat capacity	1560J/kg.K					
Vapor diffusion resistance $\boldsymbol{\mu}$	2					
Moisture behaviour	Absorbs and desorbs moisture					
Tensile strength parallel to faces	>20kPa					
Dimensional stability	Length change +/-2% and maximum T2 class for the thickness					
Resistance against fungal attack	Resistant to fungal contamination at 28°C & 85% RH					
Fire behaviour	Euroclass E					
VOC emission	A+					
Biobased label	88% biobased mass (sourcing <300km manufacturer) (EN16785-2:2018)					
Sound absorption property	99% at 1000 Hertz (HEIG-VD-2015)					
Hygroscopic absorption property	EN ISO 12571:2013 (ECOLABOR : N° ECO-P21007-20021) At 23°C					
	7A1440110					

Environmental balance



FDES available on INIES/AFNOR database

on our website www.gramitherm.eu totem B-EPD available on totem database and on our website www.gramitherm.eu

TECHNICAL INSULATION Batts dimension: 1200 x 600mm) Option: 1200 x 450mm

Thickness mm	45	60	70	80	90	100	120	140	150	160	180	200	220	240
R (Thermal resistance)	1,11	1,48	1,71	1,98	2,20	2,47	2,96	3,46	3,70	3,95	4,44	4,94	5,43	5,93
U (Heat transmission)	0,90	0,67	0,59	0,50	0,46	0,40	0,34	0,29	0,27	0,25	0,22	0,20	0,18	0,17

For over 20 years, Ecological Building Systems has been at the forefront of environmental and sustainable building products supplying a range of innovative airtightness solutions and natural insulations backed up with expert technical support.

As product suppliers in the UK and Ireland, we're happy to assist you with your projects and have expert technical and sales advice on hand.



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