

CELENIT ABE

Technical data sheet

Thermal and acoustic insulation panel, consisting of mineralized ultra-thin fir wood wool bound with white Portland cement. Wood wool is 2 mm wide.

High quality panels for design acoustic absorption systems.
It complies with EN 13168 and EN 13964.

The panels are certified by ANAB-ICEA and natureplus for eco-biocompatibility of materials and manufacturing process.

The wood used comes from sustainably managed forests (PEFC™ or FSC® Chain of Custody certification).

Also available with grey Portland cement [CELENIT AE].

Edges detail D - SC - SL - S4 - RD FR - DT - BT - RDT - RST - PS - PM
Colours standard acrylic water-based colours; liquid potassium silicate colours
Applications false ceilings and natural coverings



TECHNICAL DATA

Standard	EN 13168 - EN 13964			
Designation code CELENIT ABE	WW-EN13168-L3-W2-T2-S2-CS(10)300-CI3			
Designation code CELENIT AE	WW-EN13168-L3-W2-T2-S2-CS(10)300-CI1			
Dimensions [mm]	2400x600 - 2000x600 - 1200x600 - 600x600			
Thickness [mm]	15	25	35	
Weight [kg/m ²]	7.8	11.5	15	
Declared thermal conductivity λ_D [W/mK]	0.075			
Declared thermal resistance R_D [m ² K/W]	0.20	0.30	0.45	
Compressive stress at 10% deformation σ_{10} [kPa]	≥ 300			
Water vapour transmission μ	5			
Specific heat c_p [kJ/kgK] ¹	1.81			
Reaction to fire ²	Euroclass B-s1, d0			
Chloride content CELENIT ABE [%]	≤ 0.06			
Chloride content CELENIT AE [%]	≤ 0.35			
Sound absorption	α_w up to 1.00 - NRC up to 0.95			
Durability	Class C			
Light reflection CELENIT ABE [%]	50.7 - 74.0 (painted white 05/15)			
Light reflection CELENIT AE [%]	31.2			
Release of formaldehyde	Class E1			
Release of asbestos	it does not contain asbestos			

¹ Certified by the University of Bologna - LEBSC no. 809 | rev. 07.05.2009

² The reaction to fire does not change for painted products

LOGISTIC DATA

Dimensions	Pallet	15 mm	25 mm	35 mm
2400x600	panels per pallet	130	88	64
	m ² per pallet	187.2	126.72	92.16
2000x600	panels per pallet	130	88	64
	m ² per pallet	156	105.6	76.8
1200x600	panels per pallet	130	88	64
	m ² per pallet	93.6	63.36	46.08
600x600	panels per pallet	260	176	128
	m ² per pallet	93.6	63.36	46.08

CERTIFICATIONS

CERTIQUALITY no. 1351 | rev. 10.04.2015

ANAB no. EDIL 2009_004 Ed. 02 Rev. 00 | rev. 07.01.2015

NATUREPLUS no. 1007-1511-134-1 | rev. 12.11.2015

FSC® no. ICILA-COC-002789 | rev. 14.10.2014

PEFC™ no. ICILA-PEFCOC-000117 rev. 14.10.2014

ICEA no. LEED 2015_001 Ed. 00 Rev. 00 | rev. 19.01.2015

ICEA no. REC 2015_001 Ed. 00 Rev. 00 | rev. 19.01.2015

CONSTANCY OF PERFORMANCE no. 0407 CPR 755 Rev.3 | rev. 15.09.2014



The data of the present technical data sheet is correct at the time of release. Celenit Spa is continuously improving the products, therefore this technical data sheet can be up-dated without prior notice. Please contact our technical assistance to get the latest release.

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THERMAL AND ACOUSTIC INSULATION PANELS
FOR A SUSTAINABLE ARCHITECTURE

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SOUND ABSORPTION

Type of panel ¹	Test specifications ²			Certificate ³		Sound absorption									
	Thickness [mm]	MW [mm]	TH [mm]	No.	Date	Frequencies α_p [Hz]					α_w	NRC	SAA	Class	
						125	250	500	1000	2000					4000
Application in adherence															
CELENIT ABE	15		15	324526-A	14.05.2015	0,05	0,10	0,25	0,45	0,80	0,65	0,30 (H)	0,40	0,40	D
CELENIT ABE	25		25	331334-A	11.02.2016	0,10	0,20	0,35	0,70	0,85	0,85	0,40 (M-H)	0,55	0,53	D
CELENIT ABE	35		35	331335-A	11.02.2016	0,10	0,25	0,45	0,85	0,70	0,95	0,50 (M-H)	0,55	0,56	D
Empty air gap															
CELENIT ABE	15		45	324527-A	14.05.2015	0,10	0,15	0,45	0,80	0,55	0,60	0,45 (M-H)	0,50	0,49	D
CELENIT ABE	15		215	324527-B	14.05.2015	0,25	0,55	0,55	0,45	0,60	0,70	0,55 (H)	0,55	0,54	D
CELENIT ABE	15		300	324527-C	14.05.2015	0,30	0,55	0,45	0,55	0,60	0,75	0,55 (H)	0,55	0,54	D
CELENIT ABE	25		75	331334-B	11.02.2016	0,15	0,35	0,80	0,75	0,70	0,95	0,65 (H)	0,65	0,64	C
CELENIT ABE	25		125	331334-C	11.02.2016	0,15	0,45	0,75	0,60	0,75	0,95	0,65 (H)	0,65	0,63	C
CELENIT ABE	25		225	331334-F	11.02.2016	0,25	0,65	0,65	0,60	0,80	1,00	0,65 (H)	0,65	0,66	C
CELENIT ABE	35		65	331335-B	11.02.2016	0,15	0,30	0,75	0,85	0,75	0,95	0,60 (M-H)	0,65	0,67	C
CELENIT ABE	35		85	331335-C	11.02.2016	0,15	0,35	0,75	0,65	0,75	0,95	0,65 (H)	0,65	0,62	C
CELENIT ABE	35		235	331335-D	11.02.2016	0,30	0,70	0,60	0,70	0,90	1,00	0,70 (H)	0,70	0,72	C
Background filling with rock wool															
CELENIT ABE	15	30	45	324526-B	14.05.2015	0,20	0,60	1,00	1,00	0,80	0,75	0,85	0,90	0,88	B
CELENIT ABE	15	40	300	324527-D	14.05.2015	0,50	0,85	0,95	1,00	0,85	0,80	0,90	0,90	0,91	A
CELENIT ABE	25	30	55	324528-B	14.05.2015	0,25	0,70	1,00	0,95	0,85	0,90	0,90	0,90	0,90	B
CELENIT ABE	25	30	85	324531-B	14.05.2015	0,35	0,85	1,00	0,95	0,85	0,90	0,95	0,95	0,94	A
CELENIT ABE	25	60	125	324533-A	14.05.2015	0,50	0,95	0,95	0,95	0,85	0,95	0,95	0,95	0,93	A
CELENIT ABE	25	30	200	324531-D	14.05.2015	0,50	0,85	0,95	1,00	0,90	0,90	0,95	0,95	0,93	A
CELENIT ABE	25	50	200	331334-E	11.02.2016	0,50	1,00	1,00	1,00	0,95	1,00	1,00	1,00	0,98	A
CELENIT ABE	25	60 ⁴	200	331334-D	11.02.2016	0,35	1,00	0,90	0,85	0,85	1,00	0,90 (L)	0,90	0,89	A
CELENIT ABE	25	40	225	324533-B	14.05.2015	0,50	0,90	0,95	1,00	0,85	0,95	0,95	0,95	0,93	A
CELENIT ABE	25	50	300	324531-F	14.05.2015	0,55	0,90	1,00	1,00	0,85	0,95	0,95	0,95	0,94	A
CELENIT ABE	35	30	65	324534-B	14.05.2015	0,25	0,60	1,00	0,90	0,80	0,95	0,85	0,85	0,84	B
CELENIT ABE	35	40	200	324535-B	14.05.2015	0,50	0,95	1,00	1,00	0,90	1,00	1,00	0,95	0,94	A
CELENIT ABE	35	40	300	324535-D	14.05.2015	0,55	0,90	1,00	1,00	0,90	1,00	0,95	0,95	0,93	A

¹ Paint doesn't affect sound absorption performances of CELENIT panels as described in the technical note provided by Istituto Giordano dated 16.07.2015.

Sound absorption values are also valid for products with grey cement

² Test specifications: "thickness" is relative to CELENIT panel - "MW" is the thickness of rock wool in the background - "TH" is the total construction height from the lower edge of ceiling to lower edge of panels

³ All certificate are based on tests carried out at Istituto Giordano (Bellaria - RN - Italy) according to EN ISO 354:2003

⁴ Test carried out with mineral wool with vegetable binder

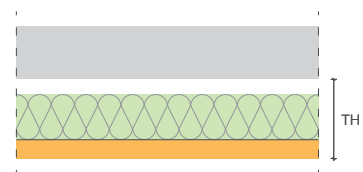
Application in adherence



Empty air gap





Background filling with rock wool



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IMPACT RESISTANCE TESTS ACCORDING TO EN 13964/Annex D - DIN 18032/Part 3

	Type of panel	Structure	Certificate ¹ No. / Date	Standard	Results
Ceiling					
	CELENIT ABE Thickness: 25 mm Dimensions: 1200x600 mm Edges: Chamfered - S4	Wooden battens size 60x30 mm Centre distance of cross joists: 600 mm Centre distance of main joists: 900 mm Number of screws per panel: 9	326533 27.07.2015	EN 13964 DIN 18032-3	Class 1A Visual examination Positive
Wall					
	CELENIT ABE Thickness: 25 mm Dimensions: 1200x600 mm Edges: Chamfered - S4	Wooden battens size 60x30 mm Centre distance of cross joists: 600 mm Centre distance of main joists: 900 mm Number of screws per panel: 9	324042 27.04.2015	DIN 18032-3	Visual examination Positive

¹ All certificate are based on tests carried out at Istituto Giordano (Bellaria - RN - Italy)

STORAGE, USE AND MAINTENANCE

The panels must be transported and laid on a flat surface in a clean and dry place, protected from direct moisture.

Pallet handling on site will be performed with the necessary care. Bumps at the corners of the pallets can cause damage to the panels.

We recommend to not remove the plastic strips and the protection cardboards during the storage of the pallets in the working site. Once opened the pallet we recommend to put a weight on top of it.

CELENIT panels are dimensionally stable (EN 13168), however, they must be installed after acclimatization in a dry room when all masonry works finished, doors and windows, heating and ventilation systems installed. It is also important to protect them from excessive moisture, the heat sources and the dust.