

PHONIC

ACOUSTIC CEILING TILES

PHONIC ABSORB

High Performance Acoustic Ceiling Tile



High Absorption



Hygrothermal



Hygiene



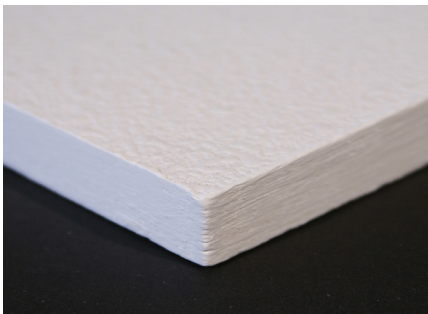
Fire Test Group-15



Lightweight Tile



Glasswool



PRODUCT SUMMARY


Phonic Absorb is a glass wool tile with a refined white painted, monolithic, pre-finished face:

- High Noise Reduction Coefficient (NRC) efficiently reduces Reverberation Time.
- Mid-range tile suitable for exhibit halls, museums, medical centres, offices, classrooms, receptions, meeting rooms and other commercial interiors.
- Phonic Absorb is also available in black. Can be matched with black CBI Grid for a sleek and sophisticated ceiling. Can also be integrated with black GridLux lights.
- Tested to the principal requirements in accordance 14644.1:2015 and ISO 14644.3:2015 and the tile meets Cleanroom ISO Class 3.
- Constructed from 90% dry felt resin bonded glass-wool, utilising longer fibres in a more compact fibre arrangement. This non-absorbent, non-water soluble design gives Phonic Absorb improved durability when compared to mineral fibre.
- The high density glass-wool tile achieves a density of 100kg/m³. This results in a light weight, high performance ceiling tile which is user friendly and ideal for use in large spaces. It won't sag or pillow.

EMISSIONS, SUSTAINABILITY AND THE ENVIRONMENT

For Green Star rated projects, Phonic meets the Greenguard Emission Certificate standard.



GENERAL TEST DESCRIPTION	RESULT	TEST METHOD
Light Reflectance	LR 87% +	ASTM E1477-98
Density	100kg/m ³	
Fire Test - ISO 5660 Part1	Group 1-S 	Cone Calorimeter NZBC C/VM2 Appendix A
Cleanroom	ISO Class 3	ISO 14644.3:2015
Moisture Rate	≤ 1 %	JC/T 670 – 2005
Thermal Resistance	≥ 0.4 (m ² -k/w)	ASTMC 423
Antimicrobial	(any result <1000 is considered low)	

Sample	Total Bacteria per 10cm ²	Total Actinomycetes per 10cm ²	Total Yeast per 10cm ²	Total Fungi per 10cm ²
Tile 1	10 Staphylococcus aureus 100%	<10	<10	30 Cladorsporium 34%, Penicillium 33%, Non- sporing fungus 33%
Tile 2	<10	<10	<10	10 Penicillium 100%

Size	<p>15mm, 20mm, 30mm and 40mm* Depth Square Edge, Reveal Edge, Direct Fix (20mm and 40mm* only) *Concealed, [600 x 600] [1200 x 600] *[2400 x 600] *[2400 x 600] *[1200 x 300] *[1500 x 300] * Available by indent order.</p> <p>To suit 24mm Grid patterns (Phonic 15mm RE available to suit 15mm grid) Other sizes available on request.</p>
Colour	Black and White

This tile comes with a 30 year lifetime system warranty to withstand conditions up to 40° and 99% relative humidity without visible sag, when used with a T&R Interior Systems branded suspension system. Tiles should be installed in accordance with NZS1170.5 and the grid manufacturer's instructions.


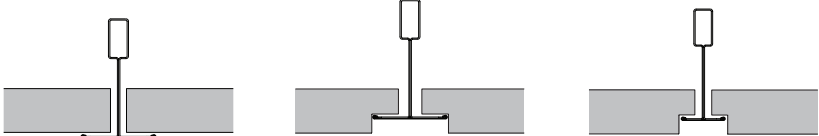
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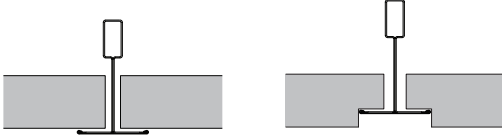
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15mm DATA	RESULT	TEST METHOD
Absorption (ISO 354)	NRC 0.85	ASTM C423
	SAA 0.94	ASTM C423
	α_W 0.80	ISO 11654: 1997
Attenuation (ASTM E1414-11A)	CAC 22	ASTM E413-10
Fire Test - ISO 5660 Part1	Group 1-S	Cone Calorimeter
		NZBC C/VM2 Appendix A
Weight	1.5kg per m ²	
Est R Value	R0.4	
Edge Detail		

20mm TEST DATA	RESULT	TEST METHOD
Absorption (ISO 354)	NRC 0.90	ASTM C423
	SAA 1.02	ASTM C423
	α_W 0.90	ISO 11654: 1997
Attenuation (ASTM E1414-11A)	CAC 23	ASTM E413-10
	D _{n,c,w} 23	ISO 717-1
Weight	2.0kg per m ²	
Est R Value	R0.5	
Edge Detail		

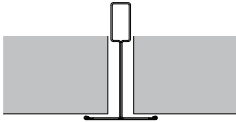
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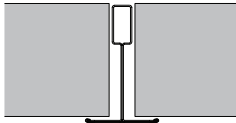
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HD (30mm) TEST DATA	RESULT	TEST METHOD
Attenuation (ASTM E1414-11A)	CAC 30	ASTM E413-10
	NRC 0.95	ISO 717-1
Weight	3.6kg per m ² (Density 120kg/m ²)	
Est R Value	R0.8	
Edge Detail		

40mm TEST DATA	RESULT	TEST METHOD
Absorption (ISO 354)	NRC 0.95	ASTM C423
	SAA 1.12	ASTM C423
	α_W 0.95	ISO 11654: 1997
Attenuation (ASTM E1414-11A)	CAC 32	ASTM E413-10
	D _{n,c,w} 32	ISO 717-1
Weight	4.0kg per m ²	
Est R Value	R1	
Edge Detail		



VOC INFORMATION

GENERAL TEST DESCRIPTION		ASTM D5116-06	
ASTM D5116-06: Standard Guide for Small-Scale Environmental Chamber Determination of Organic Emissions From Indoor Materials/Products.			
Test	Test Results (after 24 hours)	Criteria for Singapore Green Label Product	Pass
Total Volatile Organic Compounds (TVOC) Emissions Rate Test Result	0.11 mg per m ³ per hour	0.25 mg per m ³ per hour or less	YES
Test	Test Results (after 48 hours)	Criteria for Singapore Green Label Product	Pass
Formaldehyde Emission Rate Test Result	< 0.01 mg per m ³ per hour	0.02 mg per m ³ per hour or less	YES
Test	Test Results (after 48 hours)	Criteria for Singapore Green Label Product	Pass
4-Phenylcyclohexene Emission Rate Test	Not Detected*	0.0065 mg per m ³ per hour or less	YES
Test	Test Results (after 48 hours)	Criteria for Singapore Green Label Product	Pass
Total Phthalate Emission Test Result	< 0.003 mg per m ³	< 0.01 mg per m ³	YES
Test	Test Results (after 48 hours)	Criteria for Singapore Green Label Product	Pass
Total Particles Emission Test Result	0.01 mg per m ³	<0.02 mg per m ³	YES

ENVIRONMENTAL INFORMATION

Recycled product: the rate of pre-consumer recycled content in Phonic fibreglass ceiling tiles is 80%. The recycled content includes 30% industrial waste and 70% civilian used waste, all procured from reclamation depots.

The Factory has invested significant amounts into energy conservation and emission reduction and the factory runs on renewable energy sources. Professional air purification devices purify polluted air at the factory.

The Factory supplies a Gypsum Brick which utilises the scrap glasswool material created as a by-product during manufacture of the Phonic tiles. This brick is commercially available overseas.

INGREDIENTS

Fibreglass tissue face with acrylic resin (back and front of tile) 7-10% - Fibreglass (Glasswool) 80-85%, Acrylic resin 15-20%, **Acoustic board 70-80%** - Glasswool 88-89%, Phenolic resin 11-12%, **Water-based paint 20-25%** - Acrylic emulsion 10-15%, Inorganic filler (Kaolin, Calcium carbonate) 40-55%, Environmentally friendly flame retardant 15-25%, A variety of additives (Dispersant, Leveling agent; from Polycarboxylate ammonium salt, EGBE-Ethylene glycol monobutyl ether, Water) 3-5%, Ion water 15-20%, **Glue 2-4%** - Acrylic resin 50-55%, Ion water 45-50%.