



Advanced Acoustics 10/50 Silent Panel

Data Sheet

Individual Acoustic Panel Size	600mm x 1200mm
Quantity Of Acoustic Tiles Per Box	1
Total Area Covered Per Box	0.72m ²
Acoustic Panel Thickness	55mm
Sound Reduction Index	36dB
Noise Reduction Coefficient (NRC)	0.75
Acoustic Foam Colour	Black
Acoustic Foam Density	90 kg/m ³
Acoustic Foam Composition	Open Cell Polyurethane Acoustic Foam
Fire Classifications	Fire Propagation Index - < 12 (BS 476 pt 6) Surface Spread of Flame - Class '1' (BS 476 pt 7) Building Regs. 1991 (Fire Safety) - Class '0' (BS 467 pt 6 & pt 7) UL94 Classification – 94 V-0 Surface Burning Behaviour – Class A (ASTM E84-95)
Air Erosion Resistance (4001 – 6000 fpm)	Pass (ASTM C10711-91 12.7)
Fungus Resistance Test	Does Not Support Growth (ASTM G 21)
Mildew (Fungus) Resistance	Does Not Support Growth (ASTM D-2020)
Water Vapour Sorption	<9% (ASTM C552-92)
Thermal Conductivity	0.364 Btu-in./hr-ft ² -°F (ASTM C518-91)
Operating Temperature	-30 to 100°C
Profile Description	Plain acoustic foam panel



Description

Our latest range of acoustic panels, the Silent Panel is a sound barrier and acoustic foam composite with a self adhesive backing on the back of the sound barrier. The sound barrier is a 5kg Mass Loaded Vinyl and the acoustic foam is a 25mm thick, 90kg/m³ Class 0 fire rated open cell acoustic foam.

By having the noise barrier and sound absorber as one product it acts as a highly effective decoupler to isolate vibration. This product has many uses and applications. It is ideally suited to line equipment enclosures to reduce sound transmission. It is used to line walls and ceilings of mechanical rooms and plant rooms to absorb and contain the noise source. The Silent Panel enables you to create soundproof enclosures for machinery and noisy equipment.

If sound absorption and noise reduction are required then all you need is one product, the Silent Panel. With it being one easy to install product it reduces expensive installation time and reduces contractors work load. It can also be used in marine vessels to reduce noise transfer from the engine room.

Because the top layer of the Silent Panel Barrier Foam Composite is a Class 0 Acoustic Foam it has fireproof properties and the acoustic foam is treated against mildew. The Silent Panel is 600mm x 1200mm and is a total of 55mm thick, 5.2mm Sound Barrier and 50mm Class 0 Acoustic Foam. The Silent Panel is only available in black. The Silent Panels also come with a self adhesive backing already applied so there is no need to purchase supplementary adhesives to mount the barrier foam composite acoustic panels with, simply remove the backing and stick in place. The Silent Panels are suitable for mounting onto metal, wood and plastic to dampen noise transfer by reducing surface vibration.

Thanks to the size of the Silent Panel they are very easy to handle and install and is also easy to cut to the required size with either scissors or a utility knife. Mechanical fastening can also be used with this product.

The 2mm Soundproofing Mat used in the composition of this product is a flexible polyolefin sound barrier mat. This unique PVC free material has a proprietary polymer structure composed of a blend of polymers compounded with mineral fillers. It can be made use of as the sole sound absorption layer or as part of a multilayer composite with other materials

Silent Panel is currently available in the following options:

- 5kg barrier mat with 25mm Class 0 acoustic foam
- 5kg barrier mat with 50mm Class 0 acoustic foam
- 10kg barrier mat with 50mm Class 0 acoustic foam (this product page)



Advanced Acoustics is a registered company No. 07049694 - VAT # 980071035
Unit B Maunside, Greenlines Industrial Estate, Mansfield, Nottinghamshire, NG18 5GU

Data Sheet 5

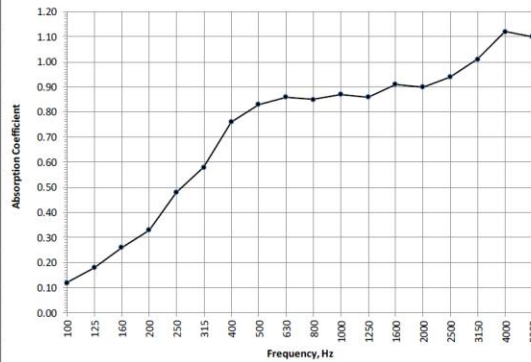
See SRL report C/23795/T02 for full details

The Laboratory Measurement of Random Incidence Sound Absorption to BS EN ISO 354:2003

Client: Advanced Acoustics
 Test Date: 19/07/2017
 Empty Room: Temperature: 21.2 °C Humidity: 70 %RH Pressure: 998 mbar
 Room with Sample: Temperature: 21.6 °C Humidity: 76 %RH Pressure: 998 mbar
 Sample Description: Silent Panel 50/10
 Mounting Method: A
 Sample Area: 10.59 m²
 Chamber Volume: 300 m³

Test 6				
Freq Hz	T1 sec	T2 sec	Absorp Coeff α_p	Practical Absorp Coeff #
50*	5.05	4.73	0.06	
63*	5.73	5.24	0.07	n/a
80*	7.33	5.97	0.14	
100	8.84	7.12	0.12	
125	7.89	6.02	0.18	0.20
160	7.23	5.12	0.26	
200	7.03	4.64	0.33	
250	7.41	4.17	0.48	0.45
315	7.58	3.86	0.58	
400	6.89	3.21	0.76	
500	6.02	2.87	0.83	0.80
630	5.47	2.68	0.86	
800	5.63	2.74	0.85	
1000	5.96	2.78	0.87	0.85
1250	5.79	2.75	0.86	
1600	5.28	2.56	0.91	
2000	4.92	2.49	0.90	0.90
2500	4.53	2.34	0.94	
3150	3.91	2.10	1.01	
4000	3.29	1.84	1.12	1.00
5000	2.75	1.68	1.10	
6300*	2.06	1.43	1.06	
8000*	1.66	1.21	1.16	n/a
10000*	1.22	0.97	1.19	

Sound Absorption Coefficient



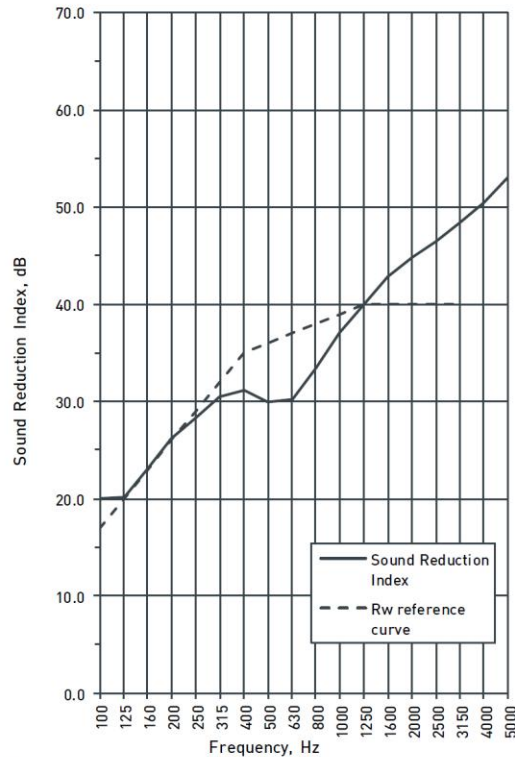
α_w 0.75(H)
 Class C
 Calculated to EN ISO 11654:1997
 NRC 0.75
 Calculated to ASTM C 423-01
 * Denotes frequencies outside the range covered by BS EN ISO 354:2003
 T1, empty room reverberation time
 T2, room reverberation time with sample

Data Sheet 2

Test Number:	11	Test Room:	Source	Receiving
Client:	Advanced Acoustics	Air Temperature:	21.9 °C	21.8 °C
Test Date:	19/07/2017	Air Humidity:	76 %	76 %
Sample Height:	2.2 m	Volume:	115 m ³	300 m ³
Sample Width:	0.62 m			
Sample Weight:	15.1 kg/m ²	Air Pressure:	998 mbar	

Product Identification: Silent Panel 50/10

Freq. f Hz	Sound Reduction Index, dB	
	1/3 Oct	Octave
50+	24.0	19.6
63+	22.5	
80+	16.3	
100	20.0	20.9
125	20.1	
160	23.1	
200	26.2	28.0
250	28.4	
315	30.5	
400	31.2	30.4
500	29.9	
630	30.2	
800	33.5	36.1
1000	37.0	
1250	40.0	
1600	42.8	44.4
2000	44.8	
2500	46.4	
3150	48.4	50.2
4000	50.5	
5000	53.0	
6300+	54.6	50.5
8000+	52.8 *	
10000+	47.4 *	
Average 100-3150	33.3	Version v3.0



Rating according to BS EN ISO 717-1:2013

R_w(C;C_{tr})= 36 (-1 ; -4) dB

* shows measurement corrected for background

> shows measurement limited by background

+ shows Frequency beyond standard and not UKAS accredited