

### Advantages

- Excellent sound absorption
- Light reflective
- Good thermal insulation
- Easy to handle, install, and clean.
- Cost effective sound
- High quality finish
- Fire rated.

### Applications

Wilhams Plantroom Wall Lining Panels provide an effective means of controlling reverberation time and reflected sound in plant rooms. They have an aesthetically pleasing appearance and are typically suitable for industrial applications such as engine enclosures, test cells and workshops.



### Description

Plantroom Wall Lining Panels consist of borosilicate mineral fibres impregnated with a suitable resin binder faced with Type E alkali glass cloth.

### Physical Information

Thickness (mm)	Weight (kg/m <sup>2</sup> )	Sheet Size (mm)
25	2.2	1500 x 1200
50	3.2	1500 x 1100
75	3.2	1500 x 1000
100	4.2	1500 x 950

The above sizes and weights are nominal figures

### Fire Performance

The borosilicate mineral fibres impregnated with a suitable resin binder core and its facing Type E alkali glass cloth are non combustible when tested to BS 476: Part 4.

When tested to BS 476: Part 6 & 7 the system will comply with a Class "0" Surface Spread Of Flame.

### Resistance to Vibration

When tested in accordance with BS 2972 the liner (all thickness) is free from fibre fall out and delamination.

### Toxicity and Oxygen Index

The finished liner has passed the test in NES 713 (toxic) and NES 714 (oxygen)

### Water Resistance

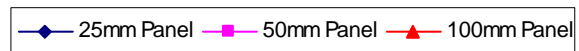
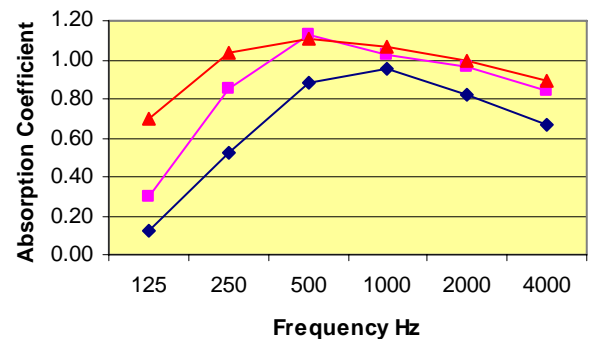
The borosilicate mineral fibres repel water due to the presence of water repellent additives. Moisture condensing from the air within the core is less than 0.02% by volume at 95% relative humidity.

### Acoustic Performance

The noise absorption co-efficient is expressed as a factor between 0 and 1.0. The more sound that a material absorbs, the higher the noise absorption co-efficient.

The noise absorption co-efficient for our Plantroom Wall Lining Panels, as tested to BS 3638:1987 is:

Frequency/ Thickness	125	250	500	1k	2k	4k
25mm	0.12	0.52	0.88	0.95	0.82	0.67
50mm	0.30	0.85	1.13	1.03	0.96	0.84
100mm	0.70	1.04	1.11	1.07	0.99	0.89



### Thermal Conductivity

When tested in accordance with BS 874

Thickness (mm)	Thermal Conductivity W/mC at 50°C
25	0.038
50	0.039
75	0.040
100	0.040

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## Installation Guidelines

Wilhams have many years experience manufacturing and supplying wall panels, and often the site limitations or restrictions require a non-standard means of supporting the panels to be developed. If you have any concerns concerning installation, please do not hesitate to discuss your requirements with our engineers.

The most common methods of installation methods are:

1. Perforated spindle pins being adhesively bonded to the existing plastered wall in the pattern shown in Diagram A, (for 25mm thick panels). Self locking or button washers are used to secure the panels.
2. For ceiling applications or where the panels are to be used in a plantroom exposed to return air, perforated spindle pins are again bonded to the existing plastered wall and adhesive is applied to 90% of the wall/ceiling surface.

In each case, the wall surface should be sound and level, and if the substrate is suspect, it is recommended that a fixed to the wall to take the panels. It is important to keep hands clean when working with the panels, or wear gloves to avoid soiling the panel.

## Installation

The pins and button washers are supplied loose with the Wall Lining panels.

1. Apply adhesive to pin and push to wall ensuring excess adhesive flows through the perforations in the pattern shown on Diagram A.
2. Allow the adhesive to cure.
3. Randomly test the bond strength of the glued pins prior to installing the Plant Room Absorption Panels.
4. Push the panels on and apply the self locking washers.
5. Where bespoke size panels are required, peel back the Type E Alkali Glass Cloth facing; cutting the acoustic insulation to the correct size and laminate the Type E Alkali Glass Cloth facing with general purpose adhesive overlapping the rear of the panel.

Diagram A

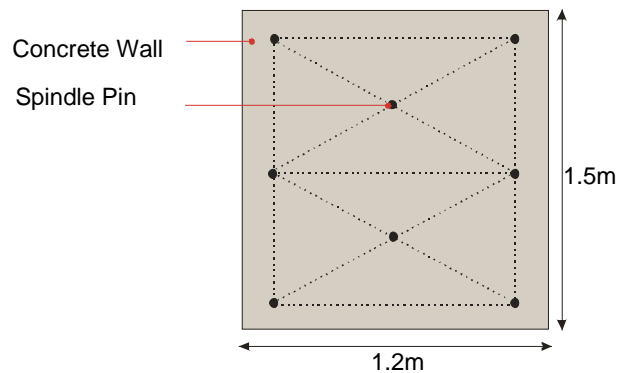
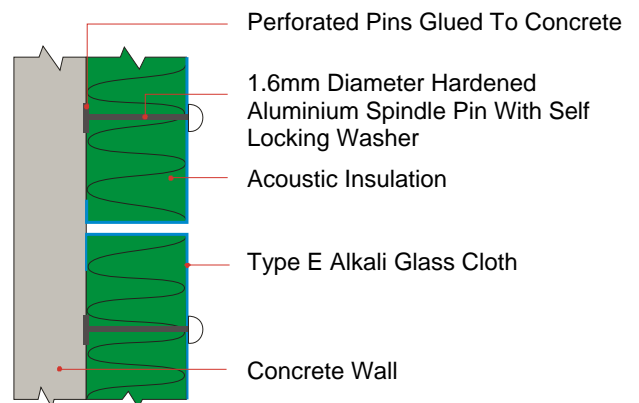


Diagram B



## Maintenance

Wilhams Plantroom Wall Lining Panels can be cleaned with a vacuum cleaner. Do not use water to clean the panels.



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