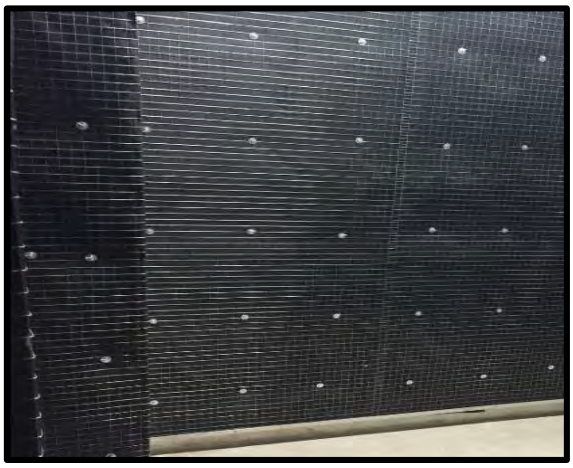
INTRUSION PROOF CO., LTD.

Description

INP Acoustic Wall Lining consists of borosilicate mineral fibres impregnated with a suitable resin binder faced with Black Glass Cloth.

Our Key Advantages

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



Applications

INP Acoustic Wall Lining provides an effective means of controlling reverberation time and reflected sound in the rooms. They have an aesthetically pleasing appearance and are typically suitable for industrial applications such as engine enclosures, test cells and workshops.

Physical Information(1)

Thickness (mm)	Type Insulation	Density (kg/m^3)	Sheet Size (mm)
50	Mineralwool	60 & 80	600 x 1200
100			
50	Glasswool	32 & 48	
100			
50	Melamine Foam	9.2	
75			
100			
50	PU Foam	25	1000 x 2000
100			

Note 1: The above sizes and density are nominal figures.

Resistance to Vibration

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

Acoustic Performance

The Noise Reduction Coefficient (NRC) is expressed as a factor between 0.0 and 1.0. The more sound that a material absorbs, the higher the NRC.

INP Acoustic Wall Lining works in two distinct ways to reduce noise; by

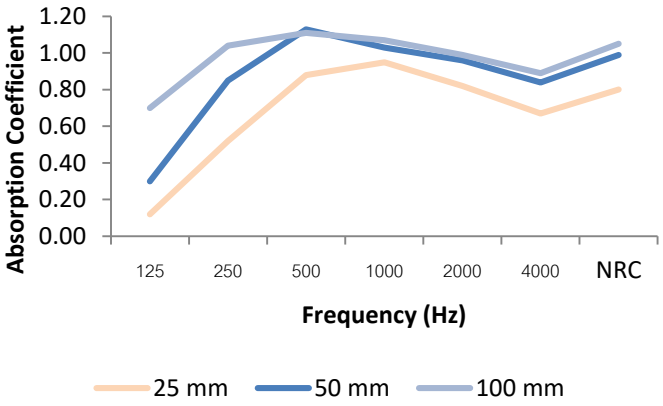
1) **Impeding the transmission of sound through an element of the structure**
2) **Absorption of sound at the surface**.

The sound absorption coefficient for INP Acoustic Wall Lining, as tested to BS 3638: 1987 is;

Thickness	Frequency (Hz)						
	125	250	500	1000	2000	4000	NRC
25 mm	0.12	0.52	0.88	0.95	0.82	0.67	0.80
50 mm	0.30	0.85	1.13	1.03	0.96	0.84	0.99
100 mm	0.70	1.04	1.11	1.07	0.99	0.89	1.05

See overleaf for performance graph.

Acoustic Performance



▪ Fire Performance

The borosilicate mineral fibres impregnated with a suitable resin binder core and its facing, Black Glass Cloth, are non-combustible when tested to BS 476: Part 4. When tested to BS 476: Part 6 & 7.

▪ Toxicity and Oxygen Index

The finished liner has passed the tests 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.

▪ Thermal Conductivity

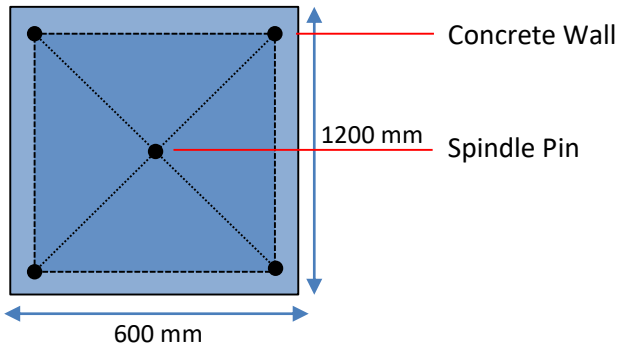
When tested in accordance with BS 874

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

▪ Installation Guidelines

1. Perforated spindle pins being adhesively bonded to the existing plastered wall in the pattern shown in Diagram A (for 50mm thick panels). Self-locking or button washers are used to secure the panels.

Diagram A



2. For celling applications or where the panels are to be used in a room exposed to return air, perforated spindle pins are again bounded to the existing plastered wall and adhesive is applied to 90% of the wall/celling surface.

3. The wall surface should be flat and of sound structure. Alternatively, timber battens can be used to level the walls or create an air gap. It is important to keep hands clean when working with the panels or wear gloves to avoid soiling them.

The pins and button washers are supplied with INP Acoustic Wall Lining.

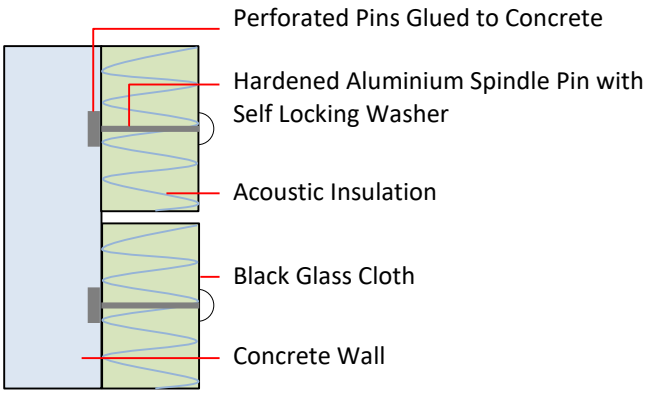
1. Apply adhesive to pin and push to wall ensuring excess adhesive flows through the perforations in the pattern shown on Diagram A above.

2. Allow the adhesive to cure.

3. Randomly test the bound strength of the glued pins prior to installing INP Acoustic Wall Lining.

4. Push the panels on and apply the self-locking washers as shown in Diagram B

Diagram B



5. Where bespoke size panels are required, peel back the insulation to the correct size and laminate the Black Glass Cloth facing; cutting the acoustic insulation to the correct size and laminate the Black Glass Cloth facing with general purpose adhesive.

▪ Maintenance

INP Acoustic Wall Lining can be cleaned with a vacuum cleaner. Do not use water to clean the panels.

▪ Our References

Intrusion Sound Proof by
Intrusion Proof Co., Ltd.
Tel: 02-0342741
Email: Intrusionproof@in-proof.com