

A simple system for class A performance with Quietstone Light

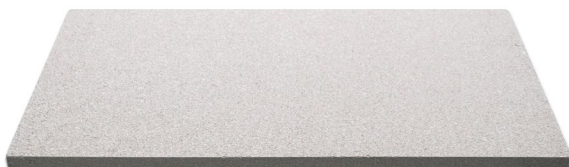
## Sound absorption in sports halls.

Speech intelligibility is of high importance in sports halls, particularly when teaching children. As is now stated in the BB93 'Acoustics in Schools' legal requirements, reverberation times need to be controlled to support this.

The difficulty here is finding a material with the durability to withstand impact from balls. Traditional fibrous absorbers will be damaged easily. The system pictured uses Quietstone Light mounted on timber battens with a mineral fiber backing. This gives Class A absorption with high impact resistance and easy installation at a very competitive price.

### Advantages

• high sound absorption	Class A. Sure to improve speech intelligibility
• non toxic	Completely inert
• Cost effective	highly competitive price
• durable	high impact resistance, long life span
• ease of installation	Can be cut with standard wood working tools
• non combustible	BS476: Part 6: 1989 - Class 1, Part 7: 2007 - Class 0



### Installation

**Timber Battens** - Tanalised timber at 75mm width and 50mm depth is battened out horizontally and vertically to meet the edges of 1200 x 600mm panels ensuring all edges meet with the edges of the panels. Exposed edges are painted to match the color of the panels.

**Mineral Fiber** - 50mm Rockwool 80kg/m<sup>2</sup> is inserted to fill the cavities between the battens.

### Attaching panels -

1. working horizontally from one side to another, adhesive such as 'Gripfill' is applied in a zigzag motion to the battens. A notched trowel is used to ensure an even coating with at least 10mm raised.
2. A panel is firmly applied to the batten and held by one person.
3. Another person fires a headless brad nail into each corner of the panel to fix it while the adhesive sets. This brad nail should not be visible.
4. These steps are repeated until all battens are covered.

**Finishing** - We can supply L brackets to further protect the edge of the panels if necessary. Usually though, the painted timber is sufficient.

### Acoustic performance - Tested by the UKAS approved, University of Salford to BS EN ISO 354: 2003

Mounting Parameters	Sound absorption coefficients, $\alpha_p$						EN-ISO 11654 $\alpha_w$	Comments relating to EN ISO 11654:1997 reference curve
	125 Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz		
25 mm, 50 mm Rockwool 80Kg/m <sup>2</sup>	0.55	1.05	1.10	0.90	0.80	0.90	0.90 (L): class A	Higher by at least 0.25 in 1 frequency band

### SOUND ABSORPTION UK LTD.

Unit 8, Langley Business Park, Langley, Macclesfield, Cheshire, SK11 0DG

Tel : +44 (0)1260 253 253 Fax : +44 (0)1260 253 337 Email : [info@quietstone.co.uk](mailto:info@quietstone.co.uk)

[www.quietstone.co.uk](http://www.quietstone.co.uk)