

QUOTATIONS FOR ACCOUSTICS.

**Class A Sound Absorption Products**

Our most popular sound absorption products for use within village, community, and church halls are as follows:

**Sonata Aurio** - 50mm thick directly bonded foam absorber finished in high quality ‘Trilogy’ display fabric. Sonata Aurio can be bonded to walls and ceilings using our high-grab Sonatac Adhesive

- <http://www.soundreduction.co.uk/Products/Sound-Absorption-Solutions/Sonata-Aurio/>.

**Sonata Vario** - 50mm thick suspended foam absorber finished in high quality ‘Trilogy’ display fabric. Sonata Vario is suspended from ceilings using our proprietary fixing kits or secured to walls via specially designed brackets. Suspending the Vario panels increases low-frequency acoustic performance and, because no adhesive is used, the Vario panels can be easily removed, should you wish to relocate them or redecorate the

walls. <http://www.soundreduction.co.uk/Products/Sound-Absorption-Solutions/Sonata-Vario/>.

Colour information can be viewed here: [Sonata Aurio/Vario Colours](#),

All of the above Sonata products are rated as Class A acoustic absorbers to BS EN ISO 11654:1997. All Sonata products are completely free from mineral fibre and glass-wool. Datasheets are attached.

**Reverberation Time Calculations**

Reverberation time is the most common way of expressing a room’s basic acoustic character. It is the time taken for a steady noise to decay by 60dB after its source has been abruptly cut off. Using information on the dimensions of the room and the surface finishes present, my calculations estimate that the mid-frequency reverberation time (average of 500Hz, 1000Hz, and 2000Hz) of the room is approximately 2.7s, which is too high for a room of this kind and intended use. The excessive reverberation will certainly detrimentally affect the users of the space. To reduce the reverberation time, we need to add Class A acoustic absorption.

In terms of a design target, given the starting point, I would recommend that we include sufficient Sonata Class A absorption within the room reduce the modelled mid-frequency reverberation time to around 1s, ensuring that acoustics are well balanced across all frequencies. Generally speaking, this should give you a very clear subjectively noticeable improvement compared with the acoustics of the room at the moment and make it much better for both speech and music.

In order to achieve this design target, the calculations suggest that approximately 28m<sup>2</sup> of our class A Sonata absorption is required. Calculations of reverberation time are attached based on the use of 28.8m<sup>2</sup> of Sonata absorption (24no 1200x600x50mm and 12no Sonata 1200x800x50mm Aurio or Vario panels installed to the ceiling). A recommended panel layout is also attached.

**Attachment Key**

Red data/graph - Untreated room

Blue data/graph – Room after treatment with Sonata Aurio Panels (bonded)

Green data/graph – Room after treatment with Sonata Vario panels (suspended)

As you can see, there has been a significant reduction in the overall level of reverberation, shown by lower reverberation time, and a much flatter frequency response. This indicates that there should be a much-improved balance to the acoustics post-treatment.

**Supply and Installation Quotation**

**Option 1 - Sonata Aurio Panels (Bonded)**

Sonata Product	Cost	Unit	No.	Total
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Aurio Absorber (1200 x 800 x 50mm)	£96.00	each	12	£1,152.00
Aurio Absorber (1200 x 600 x 50mm)	£64.00	each	24	£1,536.00
Sonatac Adhesive (300ml)	£9.80	each	29	£284.20
Installation	£1,500.00	each	1	£1,500.00
VAT @ 20%				£894.44
Total				£5,366.64

Option 2 – Sonata Vario Panels (Suspended)

Sonata Product	Cost	Unit	No.	Total
Vario Absorber (1200 x 800 x 50mm)	£125.00	each	12	£1,500.00
Vario Absorber (1200 x 600 x 50mm)	£112.00	each	24	£2,688.00
Ceiling Suspension Kit	£11.00	each	36	£396.00
Installation	£1,500.00	each	1	£1,500.00
VAT @ 20%				£1,216.80
Total				£7,300.80

Notes:

- The installation prices shown include all labour, access towers, delivery of materials, loading materials to work area, protection to existing finishes, particularly floors, and removal of all waste (packaging) from the site.
- The price allows for the standard trilogy fabric wrap on the panels.
- Lead time for the panels is usually 3 weeks max depending on the colour you require and stock levels.
- At the moment we are running a promotion for village/community halls which I would like to extend to you – 10% discount on order placed by the end of April 2022 if you use the discount code VILLHALL-10 when placing the order.
- A full gallery of our sound absorption work can be viewed here: <http://www.flickr.com/photos/soundreduction/>.
- Case studies and project profiles can be found here: <https://www.soundreduction.co.uk/about-us/news/>.
- A promotional video, including performance demonstration can be viewed on Youtube here: [https://youtu.be/ZL5kdFh\\_8BA](https://youtu.be/ZL5kdFh_8BA)
- The specification put forward represents the ideal. Should you have a budget to work, within please let me know and I will gladly advise the best way to utilise the funds.

I hope the above is of interest and I look forward to your feedback.

Best regards,

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**Richard Sherwood BSc (Hons.) MIOA**  
 Director