

sound absorbers: ceilings



Fabric Covered Sound Absorbent Ceiling Treatment

A high performance acoustic ceiling treatment comprising decorative absorber panels that can be bonded directly to the ceiling substrate or suspended on lightweight frames. Typically used to minimise the effects of undesirable sound reflections and hence lower reverberation time (RT) in various environments such as music practice rooms, recording and broadcast studios, sports and community halls, schools, conference facilities, as well as many other applications throughout commerce and industry. The absorbers offer an effective and economic alternative to the installation of a complete suspended ceiling system.

Description

The absorber panels are nominally 50mm thick, manufactured from melamine foam with a fabric covering, which provides a decorative, high quality finish. A wide range of colours can be provided with samples available on request.

Installation

Where ceilings are generally clear of fixtures and fittings, the panels are directly bonded to the substrate with special adhesive. Dependent upon the area covered, this can improve thermal insulation. The panel thermal conductivity is 0.035W/mK @ 10°C. For those instances where there are surface mounted services or light fittings, the absorbers can be suspended, to avoid disturbing these features, on a lightweight metal frame bonded to the rear surface of the panel. This can facilitate hanging at different heights to create a feature, enhancing the interior design.

Fire Resistance

The melamine foam core meets the requirements of BS476:Part 6:1981 and Part 7:1987 Class 0, whilst the standard fabric achieves BS476:Part 7:1987 Class 1.

Acoustic Performance

Frequency (Hz)	125	250	500	1k	2k	4k
Coefficient	0.23	0.50	1.0	1.0	1.0	1.0

In rooms that typically display high RT's, the selection of the correct number of panels for the room size and characteristics, can mean that the above sound absorption coefficients can dramatically reduce the incidence of sound reflections, bringing the RT down to a much more acceptable level.

Alternative Treatments

We can also offer a range of flat panel absorbers that can be fitted within conventional suspended ceiling grids or applied directly to the ceiling substrate. These are manufactured from high density mineral fibre with a white glass cloth fabric facing. For hygienic applications or instances where high humidity is present, such as hospitals, food processing industries or swimming pools, we can supply a similar product that is manufactured from moisture resistant mineral fibre with a washable, anti-bacterial facing.

Dimensions and Weight

A maximum size panel, 1250mm x 1250mm x 50mm thick weighs 1.22kg, which equates to 0.78kg/m². Although larger panels can be produced, we recommend the use of the maximum size stated, or smaller, for most applications, as this usually eases installation and often results in improved aesthetics. As the melamine foam core can change dimensionally, dependent on the relative humidity of the surrounding air, we always install panels with shadow gaps between.

Product Maintenance

Under no circumstances should water be used to high pressure clean or saturate/soak the absorbers. Periodic use of a vacuum cleaner, or careful use of a soft brush, is recommended for removal of light dust. Stains can sometimes be treated with a non-solvent based cleaning solution but care should be exercised and if possible tested on a small area first.