

AUDIOTRENDS

L E A R N I N G C E N T R E

Why Soundproof?

You're working with a client who wants a listening room or theatre room quotation. You likely have a checklist of questions to determine their needs, desires and budget. After all, part of your expertise is identifying project components that the customer never would have thought of. Part of your checklist should be incorporating sound isolation.

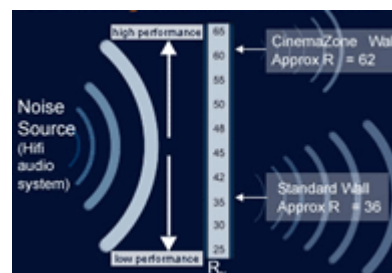
Keep The Sound Out

Modern sound systems and movie soundtracks offer dynamic range of 90dB or more. In other words, the sound levels generated by a system might range from 20dB (the faintest whisper) to 110dB (modern rock concert, if not quite as loud as The Who's record show, which reached 126dB).

The more background noise there is in the cinema room, the more this remarkable dynamic range is compressed. A 10dB reduction in noise level expands the effective dynamic range of a cinema system by 10dB. A quieter room will allow you to take in more of what you are paying for – more of the modern movie experience.

A room filled with outside distractions of kids playing, cars driving by, and appliances running just isn't the ideal movie watching environment.

A quality sound system can have a range from 20dB to approximately 110dB. Now 20dB is awfully quiet, and you'd ideally have a noise floor of 20dB in a listening room or cinema. Most houses, however, have a much higher ambient noise level of 30dB to 40dB. Sound isolation efforts will lower the room's noise floor to increase the effective dynamic range of your finished product.

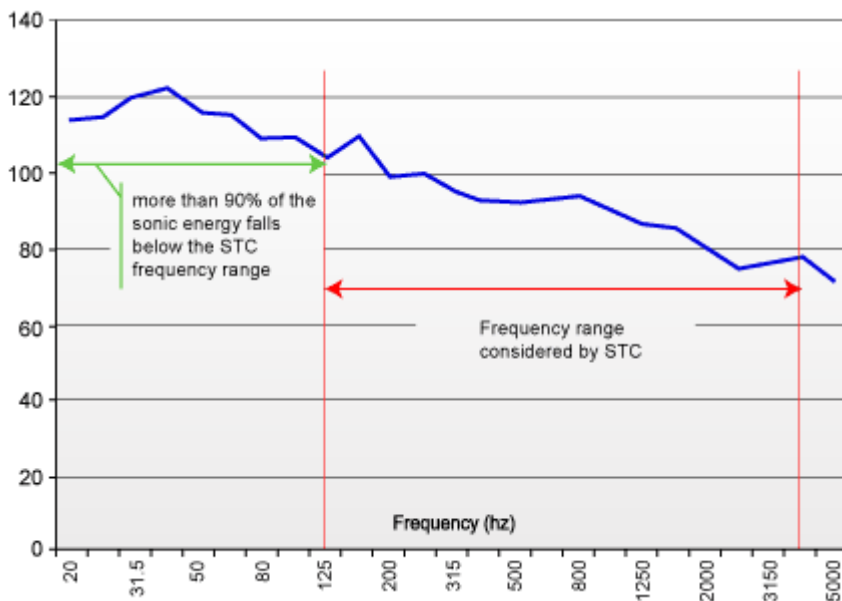


Sound Isolation improves the quality and also your perception of the quality of your installation.

Keep The Sound In

On the other end of the spectrum, the raw power of modern cinemas is impressive, and the ability to turn it up, let 'er rip, and demonstrate these marvels of modern technology is part of the fun of the cinema experience.

And in situations where people might be disturbed by cinema noise, a 10dB improvement in sound isolation is 10dB more that you can turn up the volume or the equivalent of going from a 20 watt amp to a 200 watt amp.



Spectra and level observed in a home cinema during playback of a scene from "War of the Worlds"

This chart shows the prodigious low frequency output that extreme modern cinema's are capable of. This was measured in a cinema during the infamous "tripod" scene from War of the Worlds. Most cinemas are not this loud during normal use.

Sound isolation is a definable science

Soundproofing isn't a black art. There's a great deal of solid data and science available that makes a high performance room easy to achieve. Standard labour, building materials and prudent attention to detail are needed.

While no room will ever be truly sound "proof", considerable improvements are easily attained and extraordinary levels of isolation can be had in those situations where it is necessary. These tips and resources can help you navigate to whatever isolation destin-

ation you desire. Green Glue and many other products are available to assist. Technical consultation is always available from Audio Trends and our team of professional associates.

Sound isolation is just plain good practice for dedicated home cinema customers and designers like us. Improving your room is typically only an incremental expense and for this reasonably modest outlay, you will receive a better room and we will deliver a better result!

Reference: www.audioalloy.com

E&OE

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Hours: Mon - Thurs 10am to 5.30pm
 Fri 10am to 7pm, Sat 10am to 4pm

