

Issue 8 - Why absorption?

Why absorption? This is a question we are asked so often that we decided to dedicate the next three issues to acoustic absorption. We will cover the types of acoustic products, what each is used for, and how to best use them in your design. But first, let's answer that question: Why?

Surely the most important part of a building's design is that it can be used for the purpose it has been designed for, be that working, teaching, learning, relaxing, performing, recovering or socialising. Acoustic absorption affects this heavily, so we are pleased that more projects are starting to include it in the basic design and budget.

To see how absorption helps, let's look at the benefits of absorption through 6 common building and room uses:

1. Learning and teaching

Have you ever been in an environment where you couldn't hear or understand what someone was telling you? Frustrating wasn't it? How long before you lost interest? Good acoustics means better learning. Recent research shows that the struggling students suffer more, while the top students seem to overcome the problem.

As well as improving learning, good acoustics improves discipline. This means that teachers / trainers don't need to raise their voices or shout as often (vocal injuries!) which improves their working environment. A good working environment reduces stress and attracts better staff. Happy staff, and happy students.

2. Working

People work more effectively in good working environments. Apart from training rooms and meeting rooms, absorption best improves the workplace in open plan office environments. Suitable absorption makes open plan offices friendly, collaborative, healthy and productive, not noisy, distracting and unpleasant. Suitable and well-designed open plan offices are great for business. Make sure your office is great to work in.

3. Recovering and relaxing

People recover faster and more effectively, and use fewer drugs, in hospitals with calm and quiet acoustic environments; proven and accepted. This means that the cost of the absorption is recovered within 2–3 years through operational cost savings. Do it, everybody wins.

4. Socialising

Our hearing naturally fades as we age, so noisy spaces annoy older people more than younger as speech becomes harder to understand. This is even worse for people with hearing aids, which just amplify all noise. Most people don't relax and stay in echoic spaces. If your client relies on guests staying for any length of time to have another drink, or if the age of their client base is over (say) 40, absorption is a crucial part of the design.

5. Defining calm and bustling zones

In large spaces such as atria, it isn't possible or suitable to equally treat the entire space. Absorption helps to define areas in the atrium: use lots at the reception to make speech easy to understand, use less in the circulation areas so that they feel a bit more bustling and friendly, use a bit more in the calmer seating areas. Don't ignore the coffee shop!

“Use acoustic absorption and reflection deliberately and effectively”

6. Denoting status

Many buildings are designed to look impressive, but on entering them, they just don't feel right. The acoustic atmosphere of a space must match the feel of the design: calm and confident, luxurious, funky? Echoic spaces usually feel a bit cheap and nasty but can be fixed.

Appropriate absorption

We're not saying cover everything with panels, far from it! Rather, identify the room's use and design the acoustics accordingly. Use acoustic absorption and reflection deliberately and effectively and you will have a building that works better. Better still, include it in the initial budget and it will still be there after the final round of VE.

SRL SA: let's get it right

Let's get the acoustic design right. We work with clients and design teams to specify each room's acoustic design properly to help make excellent, usable buildings. Call us on +27 21 680 5305 or email srl@srlsa.co.za.

In the next issue, we look at the main types of acoustic products, what each type is good for, and where to use them in your design.