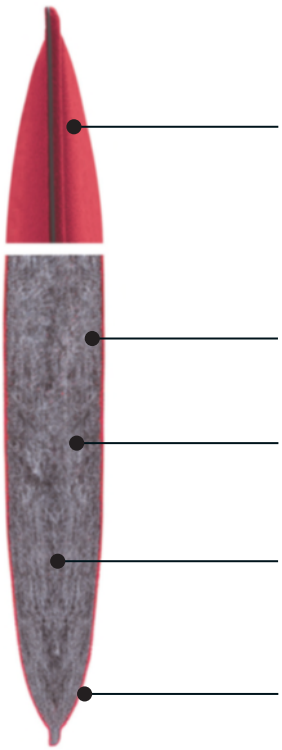
Mitesco Acoustic Panels

The Sound

Sound is formed by waves that tend to be reflected from solid surfaces having limited absorption capacity such as, for example, concrete, marble or glass. In rooms made with these types of materials, often very annoying echoes can be created, making it difficult to listen and converse in comfort. Sound absorbing materials are created from the need to improve acoustics in these environments.
The sound absorbing characteristics of traditional products tend to demonstrate less capacity to absorb low frequencies (below 500Hz), progressively more with regard to the midrange (between 500 and 2,000Hz) and to a greater extent with regard to the high frequencies (above 2,000Hz).

Snowsound® Technology

The brilliant intuition at the heart of Snowsound®'s patented technology is based on the use of panels composed of material with variable densities, which functions to achieve selective absorption at different frequencies and thus to optimise the acoustical environment notwithstanding the pronounced thinness of the panels. The absence of frames and seams and the unusual characteristics of the material in the fabrication of the panels, render them extremely light, unobtrusive and adaptable to any environment.



The surfaces of the panel are coated with Trevira CS® polyester fabric firmly bonded to the inner wadding with which it forms a single body without a break. This property makes it possible to obtain a surface which, while visually appearing very soft, actually is resistant, difficult to tear or perforate.

High density polyester

Medium density polyester

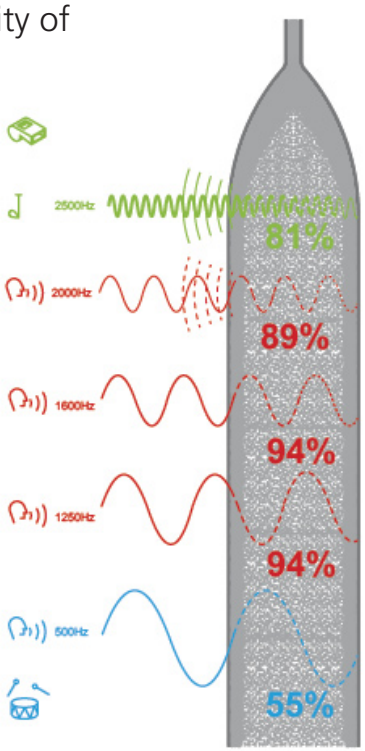
Low density polyester

Rigid border

Acoustics

The sound absorption coefficient for normal incidence was calculated in Kundt's tube prepared according to the standard UNI EN ISO 10534-2, test executed by Materiacustica, a spin-off company of the University of Ferrara.

The graphics and image show how the Mitesco panels, using Snowsound® technology, affect the acoustics of a room: notwithstanding the reduced thickness they do relatively well in absorbing the low frequencies (below 500Hz), those that characterise deep sounds that are normally more difficult to dampen; they absorb very well the midrange frequencies (between 500 and 2,000Hz), those typical of the human voice and generally in all workplaces; they tend to reflect, gradually absorbing less of the high frequencies (above 2,000Hz), those which by their nature are already in large part absorbed by the walls, the furnishings and by the very presence of people. The result thus obtained is a comprehensive, natural balance of sounds in the environment.



Fire

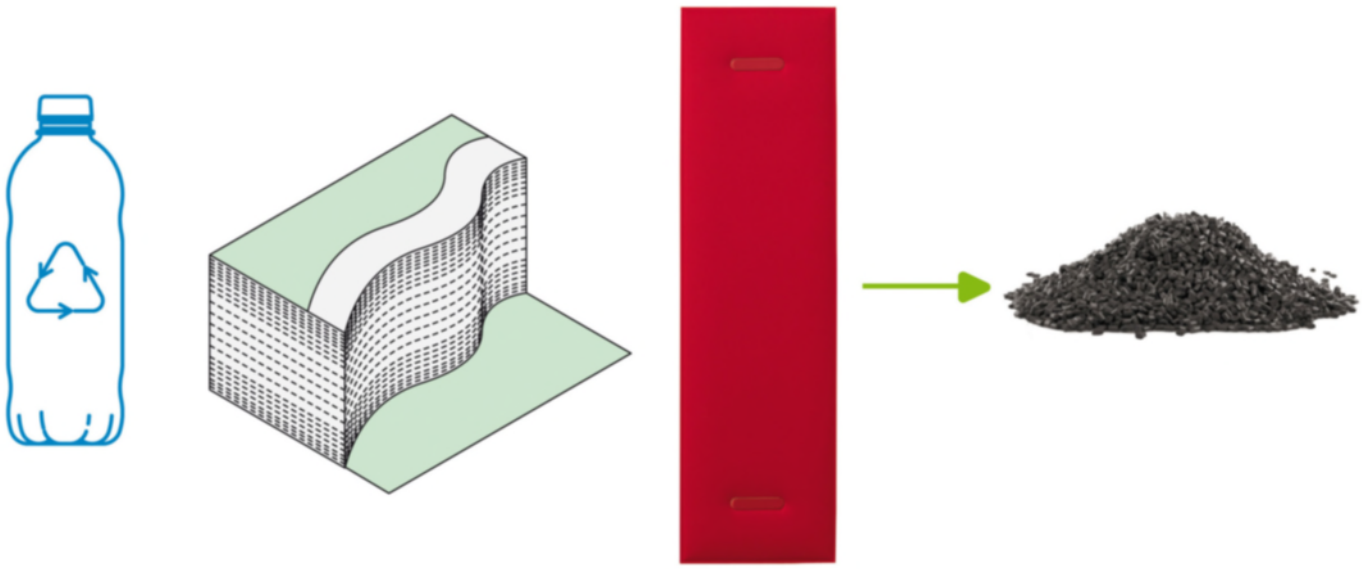
The single material panel in its entirety, external fabric and soundabsorbing interior material, has Italian Class 1 and Euroclass B-s2-d0 classification as to reaction to fire.

Double Faced

The panel is double-faced; therefore it has the same functional characteristics on both sides. The aesthetic uniformity is functional; besides having ease of assembly and disassembly, it allows for use with either side visible or reversed and reapplied to a surface whenever one side might inadvertently be damaged.

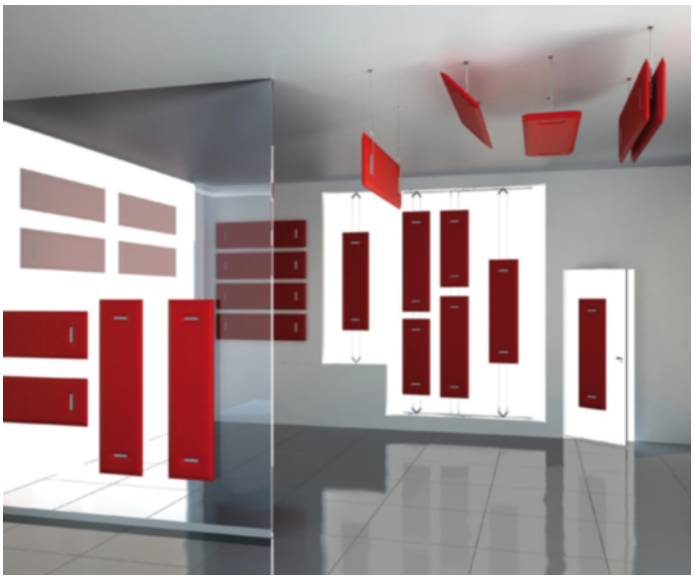
Eco-Friendly

In the designing of the panel the objective set was to obtain the entire recyclability of the product at the end of its useful life, in a manner both simple and rapid. For this reason, the panels have been made entirely of polyester; therefore they are “single material” and 100% recyclable without the need of having to separate the outer fabric from the sound-absorbing inner material. Also, all components are made of single materials, plastic or metal and easily disassembled, thus permitting recycling the whole product at 100%. The use of high quality materials and processing, moreover, make it possible to obtain longer product usage life, resulting in reduced consumption of materials and energy.



Layout

The number and variety of attachment systems make it possible to meet various acoustic exigencies, designing and architectural. The application of the panels can be: to walls, ceilings, wiring, with magnetic fittings or on self-supporting structures.



Office

Education & Libraries