

Acoustics



Acoustis® 50

New!

**Coated fibreglass fabrics with a patented special acoustic weave**  
**For "designer" acoustic comfort**  
For all acoustic absorption functions

modulight®

Collection 2006-2009



external and internal



printable



Width 250 cm

> [www.sunscreen-mermet.com](http://www.sunscreen-mermet.com)

Properties



MERMET®



## Product features

### New

- **comfort optimized by acoustic absorption, perfectly matched to the interior design**
- **A single product for 3 functions:**
  - technical function:** acoustic quality without thermal resistance to ensure a healthy atmosphere in humid surroundings
  - design:** 12 colours to give free rein to the imagination
  - comfort:** for a calm but cheerful atmosphere
- **A light, gossamer-thin acoustic solution,** easy to fit to walls and ceilings
- **A tough architectural solution** for good-looking durability



## What you need to know about acoustic absorption

### ➤ Acoustic absorption: why and where?

In buildings for services or cultural activities, or in buildings open to the public, it is required for:

- improving communication to make conversations easier to understand
- keeping down ambient noise levels.

The Acoustis® 50 fabric, which significantly reduces acoustic reverberation, helps to meet both objectives.

Limiting ambient noise is a requirement in buildings open to the public:



Tertiary sector: halls, meeting rooms, open spaces



Public sector: swimming pools, sports centers, classrooms



Cultural sector: auditoria, concert halls, night clubs, congress halls, exhibition halls, museums, cinemas



Restaurants, cafeterias



Hotels: passageways, lobbies



Stations, airports





## How acoustic absorption works

Acoustic absorption reduces the **reflection of sound waves** in a room. This should not be confused with acoustic insulation, which prevents sound being transmitted between rooms. Absorbent materials let sound through but absorb it by converting the vibration of air molecules into heat. They reduce sound levels in a room because while sound crosses them repeatedly it loses some of its energy.

The technology of its special weave gives Acoustis® 50 a **high acoustic absorption capacity**. Perfect control of the material's **porosity** helps to **absorb sound waves** without adding any fibrous or porous material.

The acoustic performance of Acoustis® 50 varies with the function. **For free-floating fabric, acoustic absorption**, expressed in  $\alpha_w$ , is around **0.35**.

For **tensile or frame-stretched structures, acoustic absorption** is about **0.8  $\alpha_w$** .

## ➤ Acoustis® 50: a powerful, healthy and good-looking acoustic solution

Acoustis® 50 is an effective response for **lower acoustic reverberation**.

This acoustic fabric, made of **controlled-diameter fibreglass**, has **no risk of inhalation**. Labeled **Oekotex Standard 100**, it contains **no chemicals harmful for the health** and safety of users.

**Rot-proof**, it is perfect for **humid environments** and is **outstandingly durable** in internal and external use.

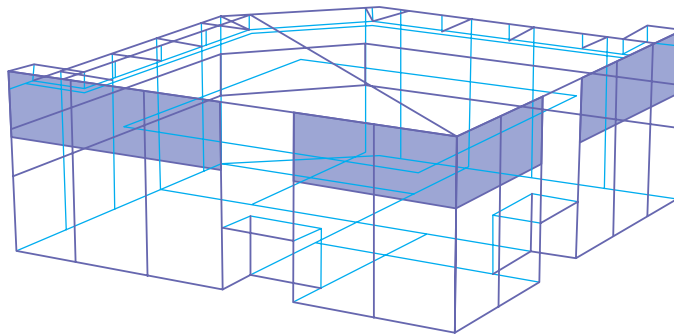
Acoustis® 50 is a designer solution to acoustic absorption needs. **The absorbent agent is completely visible**, unlike foams, panels, etc. This prevents any risk of concealed deterioration or condensation.

Acoustis® 50 can be **washed and dusted**, so it is a **perfectly hygienic acoustic solution**.

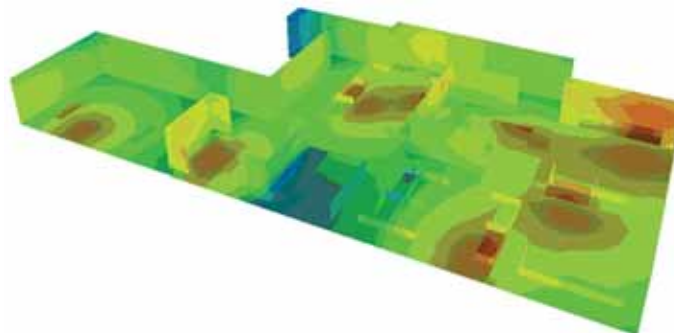
Lightweight, with **excellent mechanical resistance** and **perfect**

**dimensional stability**, Acoustis® 50 is **easy to fit**. In a range of 12 colours, it offers interior designers an almost unlimited potential for creation and use.

## ➤ Atrium equipped with blinds



## ➤ Control of ambient noise levels



# Acoustis® 50: acoustic comfort in three dimensions

Acoustis® 50 can be used for **all architectural fabric functions**. Apart from acoustic control, it fulfils many other functions: **space layout, solar protection, light control. Printable**, it can be used as a communication and graphics medium.

Acoustis® 50 can be used in several ways:

## ➤ Tensile panel

with eyelets, on a profile or by inserting a spring and ring system. Its high mechanical resistance means that Acoustis® 50 can be used on walls or ceilings. The fabric can be cut to allow for air vents and lighting systems.

## ➤ Velum panel

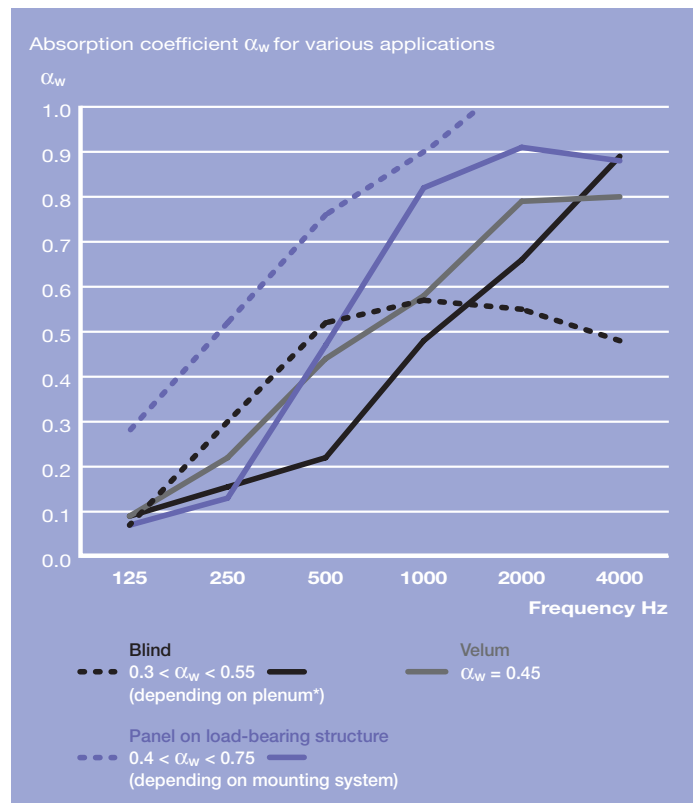
the panel is mounted with springs and tensioners or with adjustable fastenings. With this system, Acoustis® 50 can be used for solar protection or light control, or as a drape, where it adds to the acoustic absorption of the ceiling, notably in renovation work.

## ➤ Frame-stretched

Acoustis® 50 can be stretched on a frame as a complete panel or as an architectural feature.

## ➤ Spinnakers

Fixed or rolled up, the acoustic fabric, more particularly used in tertiary sectors, can improve the acoustic comfort in offices and open spaces. This application can provide an acoustic control and thus replace a ceiling that would require the addition of a fibrous material.



The acoustic absorption capacity of the material is expressed by its acoustic absorption factor  $\alpha_w$ . A high absorbing material will tend towards 1, a high reflecting material will tend towards 0.

\*Space behind the application.



Panel stretched by elastic or cord



Panel stretched on frame



Panel stretched by springs

Acoustic absorption factor $\alpha_w$	<b>0,35 to 0,8</b>	
Fire-resistance classification	<b>M1 (F)</b>	NFP 92 503
Composition	<b>Coated fibreglass fabric</b>	
Weight per m <sup>2</sup>	<b>410 g 12.1 oz/yd<sup>2</sup> ± 5 %</b>	ISO 2286 - 2
Thickness	<b>0.70 mm 27 mil ± 5 %</b>	ISO 2286 - 3
Breaking strength	Warp <b>&gt; 150 daN/5 cm &gt; 200 lbs/in</b> Weft <b>&gt; 150 daN/5 cm &gt; 200 lbs/in</b>	ISO 1421
Tear resistance	Warp and weft <b>6=&gt;10 daN</b>	Internal procedure
Resistance to fold	Warp and weft <b>≥ 20 daN/5 cm</b>	Internal procedure
Colour fastness to light	scale of 8 <b>7/8</b> White not graded	ISO 105 B02
Width	<b>250 cm 98.4"</b>	
Making-up	<b>Welding (thermal, high frequency, ultrasonic) or sewing</b>	
Marking	<b>Digital printing / Screen printing Transfer / Paint</b>	
Standard packaging	<b>Rolls of 27 lm</b>	

The data in this document is for information only and may not be considered as binding.



Colours in the prints may be slightly different from the actual ones.



➤ **Special orders on request**

# Acoustis® 50

## Advice

### **Storage conditions**

The rolls of fabric should be stored horizontally, but not piled up, in a place where the temperature and level of humidity is as constant as possible.

The fabric should never be folded. For long-term storage, it is not advisable to leave rolled or folded panels on top of each other.

### **Advice for blind making**

The panels of fabric are cut by blade or ultrasonically. They can be welded (thermal, high frequency or ultrasonic) or sewn together.

The fabric must be properly squared before it is made up, especially for large blinds or structures.

The blinds can be manufactured normally (vertical warp) or railroaded (vertical weft).

It is advisable to add a strengthening strip of translucent coated fibreglass to welded seams and sleeves. Horizontal seams give the best result. For tensile structures, it is better make a pocket to fit all the way round the panel.

### **Care instructions**

Remove dust with vacuum cleaner or compressed air.

Do not scrub.

Do not use solvents or any abrasive substance that might damage the coating of fabric.

Clean with a sponge or soft brush dipped in soapy water.

Rinse with clear water.

Leave the panel down until completely dry.

