



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

Veyrins Thuellin, 16th October 2006

## PRESS RELEASE

Mermet presents Acoustis® 50.

Mermet, manufacturer of fibreglass technical textiles and inventor of the solar protection market, is launching a new decorative acoustic absorption material: Acoustis® 50.

### A major innovation

Acoustis® 50 is the first solution made of special-weave controlled-diameter coated fibreglass, and is the only material that doesn't require any additions (foam, coating, etc.). This weave has its own special patent and is the first to offer fabric such a high level of acoustic absorption. It is the first fabric that provides simultaneously:

- acoustics: it absorbs sound waves without the need to add any fibrous materials thanks to the fabric's perfect porosity,
- immediate decorative use: thanks to the range of colours and the fact that it can be printed upon.

It offers several advantages:

- the fabric is aerated: there is no thermal resistance, which guarantees a healthy atmosphere even in humid surroundings. It also provides for better ventilation when applied as a screen,
- unlike rock wool it is non fibrous, which means there is no risk of inhalation,
- it is easy to install, transport and stock, due to its thinness and light weight,
- its excellent mechanical resistance means it can withstand tension,
- the fabric can be welded together, and therefore be used for large scale projects,
- the absorbent agent used is totally visible, thus avoiding all risk of concealed deterioration and guaranteeing greater durability,
- very hygienic, as it can be washed and dusted.

Good-looking and printable, lightweight, with perfect dimensional stability, Acoustis® 50 offers real advantages on a market where acoustic solutions are often complicated to apply. It can be used as a tensile panel, frame-stretched, spinnaker or velum panel applications and has a number of functions: interior layout, solar protection, light management, etc.

Especially designed for use in noisy buildings where the sound level needs to be restricted in order to enhance communication, Acoustis® 50 significantly reduces acoustic reverberation.

Acoustic absorption\* (not to be confused with insulation) reduces the reflection of sound waves; absorbent materials let sound through but reduce its vibrations and therefore strength.

With M1 fire-resistance classification, Acoustis® 50 is particularly suitable for places open to the public such as: tertiary-sector buildings (open space offices, meeting rooms, etc.), public-sector buildings (swimming pools, sports halls, amphitheatres), hotels, restaurants, cafeterias, concert halls, theatres, museums, cinemas, etc. and transport hubs (stations, airports, etc.)

### Unique technical performance

Labelled Oekotex Standard 100, Acoustis® 50 contains no chemicals or toxic substances harmful to the health and safety of users.

Its acoustic absorption reaches up to 0.8  $\alpha_w$  when used for a tensile or frame-stretched structure.

Acoustis® 50 is available in 12 colours and can be used for both walls and ceilings. It respects criteria defined by the French HQE (high environmental quality) standard (Category 3 Target 9 Acoustic comfort) and is guaranteed for 5 years. It has already won over acousticians and has been chosen for large-scale productions in the form of tensile frame-stretched structures for the open space offices and auditorium of Crédit Suisse in Paris, flags around the headquarters of the European Commission and for skylights and roll-up blinds for the Serono laboratory in Geneva.

Press contact: Releases / Marine Armand – Karine Carlet  
Tel.: 04 37 49 02 02 – [depeches@wanadoo.fr](mailto:depeches@wanadoo.fr)

\* acoustic absorption: when sound energy reaches the wall of a building, it is converted into transmitted energy, reflected energy and absorbed energy. According to the wall coating, it is possible to influence the quantity of energy absorbed and therefore reflected, thus improving the sound quality of a place and reducing the sound level when it is noisy.

\*Alpha Sabine ( $\alpha_w$ ): The acoustic absorption capacity of a material is expressed by its acoustic absorption factor  $\alpha_w$ . This absorption factor is the relation of the acoustic strength absorbed by the surface of this material on the incident power. A high absorbing material will tend towards 1.

\* acoustic insulation: acoustic insulation corresponds to the capacity of a building's structures to prevent the transmission of sound between rooms.







## GLOSSARY

### A

**Absorption factor  $\alpha_w$ :** The absorption capacity of a material is expressed by its acoustic absorption factor  $\alpha_w$ . This absorption factor is the relation of the acoustic power absorbed by the surface of this material on the incident power. A high absorbing material will tend towards 1.

**Acoustic absorption:** sound energy reaching the wall of a building is converted into transmitted energy, reflected energy and absorbed energy. According to the type of wall, it is possible to influence the quantity of energy absorbed and therefore reflected, thus improving the sound quality of a place and reducing the sound level when it is noisy.

**Acoustic insulation:** acoustic insulation is defined by the capacity of a building's structures to prevent the transmission of sound between rooms.

**Acoustics:** Acoustics concerns the emission, transmission and reception of sound and noise within the same premises or between different premises.

### B

**Breaking strength:** the strength that has to be applied to the material to break it. The measurement, carried out on a 5cm-wide sample, is expressed in decaNewton (daN, 1 daN =  $\pm$  1 kg).

### C

**Colour fastness to light (ISO 105 B02):** tests are carried out under artificial light or natural exposure. Whatever the colour (apart from white which is not graded), after 300 hours of exposure to intense light (sample subjected to heat of 45 °C), Mermet fabrics reach grade 7 out of 8 based on a blue range reference scale: the drift of colours under the effects of light is therefore low. This test corresponds to natural ageing of 4/5 years (survey carried out at the CNEP).

### D

**daN:** decaNewton, unit of strength equivalent to  $\pm$  1kg

### F

**Fire classification:** The reaction of a construction product to fire expresses its capacity to contribute (or not) to the development of a fire. Material classified M1 (French fire classification) means that this material is non-inflammable.

**Frequency:** The number of times a specified periodic phenomenon occurs within a specified interval. It quantifies the value of sound and is expressed in Hertz (Hz). There are three types of frequency: low (20 to 400 Hz), medium (400 to 1600 Hz), and high (1600 to 20 000 Hz).

### L

**Label Oekotex standard 100:** guarantees that a textile contains no chemicals or toxic substances harmful for the health and safety of users.

### R

**Resistance to fold:** the fabric sample, folded in two, is crushed by a 5 kg cylinder. Breaking resistance is then determined on this weakened zone. It is expressed in daN.

**Reverberation:** In acoustics, this is the persistence of sound after the original sound has been removed; acousticians distinguish reverberation via tailing, coloration and enhancement. The length of reverberation is the time a sound takes to drop to 60 dB.

### T

**Tear resistance:** the strength required to break a previously-slashed sample. This test is essential for outside blinds, which are exposed to sometimes extreme weather conditions or that may come into contact with a nearby frame that may tear the edges of the material.

**Thermal resistance:** Ability of a material to resist to high temperature.