

Veyrins Thuellin, 8th June 2009

PRESS RELEASE  
A Mermet Project

## **Acoustis® 50: A 3D swimming pool by Mermet**

The noise of children screaming, people diving, echos... swimming pools are normally very noisy public areas. Reducing sound resonance, without spoiling the atmosphere, is often a major requirement, but difficult to achieve because of the humidity level.

**Mermet, creator of hi-tech fabrics made of coated glass fibre, with its Acoustis®50 fabric provides a simple yet effective solution, as it once again demonstrates when installed in a tensile structure at the Chauray aquatic centre.**

Tested by an acoustician, there has been a demonstrable improvement in the acoustic correction of the "pool hall" since April 2009. Over the summer months, swimmers will really feel the benefit!

Constructed from a three-dimensional framework, both aesthetic and hi-tech, the Chauray swimming pool structure required complete refurbishment. The old solution using a fabric covered with mineral wool was successful from the acoustics point of view, but has suffered significant deterioration over time (eventually the mineral wool had to be removed).

The product sought after by the acoustician needed to be a decorative, non-fibrous and durable fabric, with acoustic properties at least equal to those of the original solution (average reaction time  $\leq 1.5$ s).

The installation of Acoustis® 50 by Mermet was always going to prove successful thanks to:

- **its coated glass fibre weave and special patented acoustic weft** which enable it to absorb sound waves without the addition of fibrous materials or foam, i.e.:
  - a light acoustic solution, very thin, which is easy to install,
  - obvious decorative advantages with 12 different colours available.
- **its rot-proof qualities and thermal resistance** which enable it to be installed indoors or outdoors, guaranteeing a healthy atmosphere in even the most humid environments,
- **its high mechanical resistance to breaking, tearing or folding and its perfect dimensional stability**, enabling it to be installed in a tensile structure,
- **its safety guarantee.** With a non-flammable fire classification, certified to Greenguard® and Oeko-tex standard 100, and bearer of the Enduris™ Glass Core quality label, Acoustis® 50 meets all the requirements for use in public areas.

In total, 108 triangles (3m x 3m x 3.90m) of Mermet® panels, that's 670m<sup>2</sup>, were used.

### **Guaranteed results**

Acoustic absorption reduces the reflection of sound waves and thereby limits the build-up of sound in a room. Absorbent materials reduce sound levels because sound loses energy each time it passes through them.

This type of public building needs to:

- limit the ambient sound level,
- help communication by improving the intelligibility of the spoken word.

By significantly reducing acoustic reverberation (absorption coefficient  $\alpha_w \geq 0.7$ ), Acoustis® 50 meets both these objectives. This is fully backed up by the before-and-after study carried out by an acoustician at the site.

Measures taken before work started, with a perforated tank and a tensile ceiling textile (minus the already-removed rock wool), showed a reverberation duration of 1.9s, i.e; a relatively good performance level for this type of building.

After work was complete, the reduction in average reaction time was significant with a **final reverberation level of just 1.4s**, way exceeding expectations!

Aesthetic and hi-tech, the Acoustis® 50 fabric, launched in 2006 and once again featuring in the new Mermet® 2009-2012 collection, is continuing to make inroads into the market where it remains a quite unique reference product.

Press Contacts:

Dépêches

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## Product data sheet Chauray Aquatic Centre Project

**Type of project:** Community project

### Description:

Aquatic centre/three-dimensional framework between 5.50m and 7.50m above floor level.

### Description of textile structures

Quantity of sheets: 108

Dimensions: 3m x 3 m x 3.90m. Total: 670m<sup>2</sup>

Casing with reinforcing bands sewn to the sides

Eyelets on the two 3m sides at regular intervals

Triangles fixed to the structure using plastic hooks

Tension at the 3 extremities, and the middle of the 3.90m length, via pool-grade elasticated cord

### Fabric type: Acoustis® 50, colour 0202 White

Acoustic absorption coefficient  $\alpha_w$ : 0.35 to 0.8; in this application  $\geq 0.7$

Fire classification: M1 (France), Euroclass B,s3,d0 (EU)

Quality labels: Oeko-tex standard 100, Greenguard®, Enduris™ Glass Core

Weight per m<sup>2</sup>: 430g      Thickness: 0.55 mm

Breaking strength:

Warp > 150 daN/5cm

Weft > 150 daN/5cm

Tear resistance:

Warp  $\geq$  5 daN

Weft  $\geq$  4 daN

Resistance to fold:

Warp and weft > 20 daN/5cm

Colour fastness to light: 7/8 (scale of 8 colours) white not rated

Construction: Welding (thermal, high frequency, ultrasound) or stitching

Marking: Digital/ Screen/ Transfer / Paint

Standard packaging: Rolls of 33m

Guaranteed 5 years

### Participants

Client: Niort District Council  
Water Sports Department

Manufacturer: Signa France /Jérôme LE QUILLIEC

Installed by: Inter lignes Déco/Christian JALLOT

Acoustician: Acoustex Ingénierie/François BONNEFOUS