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fermacell Project & Solution

Philharmonie de Paris, France

- Project completed in 2014
- 2,901 m² of 15 mm **fermacell** Gypsum Fibreboards and
3,402 m² of 18 mm **fermacell** Gypsum Fibreboards

Philharmonie de Paris, France

The Project

Situated at the heart of the Parc de la Villette, between the Cité de la Musique, the Grande Hall, the Zenith Concert Hall and the Conservatoire National Supérieur de Musique et de Danse de Paris, the Philharmonie de Paris is a joint project of the Ministry of Culture and the City of Paris and marks a significant step in the construction of Greater Paris. Equipped with a concert hall designed for 21st century audiences, the Philharmonie de Paris aims to develop a new relationship with a broad spectrum of the public with its large 2,400 seat auditorium, a complex of six rehearsal rooms and an important educational wing. Designed by the architect Jean Nouvel, the exterior of the building makes a strong visual statement.



© Philharmonie de Paris - Ateliers Jean Nouvel

According to its architect, it is a « geographical building », a raised metal structure forming a hill. As for the concert hall, its wrap-around design means the audience is seated around the stage. This arrangement can accommodate a large audience while reducing the distance between the furthest member of the audience and the conductor to 32 metres at most.

Project Requirement

The acoustic volume of the 30,500 m³ hall gives a reverberation time of between 2 and 3 seconds. The intensity of the induced sound is optimum, particularly owing to the diffusing acoustic reliefs mounted on part of the walls, on reflectors and on the ceiling which enhance reflection and « soften » the mirror effect of extensive smooth surfaces.

fermacell Gypsum Fibreboards play a significant role in improving the acoustics. Used in the large hall as lining with decorative elements in solid timber, the panels contribute to the acoustic performance.

fermacell Gypsum Fibreboards also contribute to the acoustic quality and sound insulation of the rehearsal rooms and lecture rooms.

Solution

In this building where the acoustic quality is of prime importance, particular attention was paid to the application of partition wall and ceiling panels as an integral part of this High Environmental Quality project. All the products and materials used in the building comply with environmental standards and / or Ecolabels. **fermacell** Gypsum Fibreboards 15 and 18 mm thick and mounted on a metal framework were selected owing to the different technical characteristics combined in the one product: high acoustic performance due to the increased density of the material, shock resistance and fireproof. The properties of fermacell also enabled the final lining to be affixed directly to the partition core. In addition, **fermacell** Gypsum Fibreboards are made of plaster and cellulose fibre with only water as a binder. These specific characteristics make the panels extremely adaptable for use in an environmentally friendly building.

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Overview	
Client	Contracting authorities : Ministry of Culture, City of Paris
Builder	Architect : Jean Nouvel
Design Engineer	Contractor : Bouygues Construction
Project Management	Layout : Sodifra and Lindner (partition walls, ceilings)
Dry Construction	Building usable area : 20,000 m ² Height of the construction : building 37 m, 9 floors Concert hall area : 2,200 m ²

Fermacell GmbH
Düsseldorfer Landstraße 395
D-47259 Duisburg

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