Systems for insulation and airtightness
Editorial

Over the last fifteen years, PAVATEX has developed from being a manufacturer of hard fibre-board products oriented toward the Swiss market to become a leading Europe-wide supplier of multifunctional, tailor-made wood fibre-based insulating systems offering perfectly harmonized components to meet a huge range of requirements in the new build and renovation sectors. This makes PAVATEX the only manufacturer dedicated to the production of top quality wood fibre insulating materials for building shells. In addition, we can point to the successful market launch of a range of innovations which have matured into well-established products. These include, for example, our DIFFUTHERM composite thermal insulation system or PAVADENTRO, a solution developed by us featuring an integrated mineral functional layer for the internal insulation of outside walls.

In the future, we shall continue to press hard to build on our market leadership, for example with our new system solutions for permeable and yet simultaneously airtight construction projects. These fully-featured, guaranteed, single-supplier solutions are our core strength and, most importantly, offer our partners in the construction industry significant market opportunities.

Martin Brettenthaler,  
CEO PAVATEX SA
PAVATEX’s intelligent, multifunctional insulating and airtightness systems guarantee not only the safety and reliability of the construction itself but also create a healthy, comfortable living environment. These exceptionally ecological, healthy solutions ensure an outstanding level of home comfort.

Every fibre in a PAVATEX product ensures natural protection, healthy living and total comfort in every part of the building. The permeable structure of PAVATEX fibreboard insulating materials results in a well-balanced indoor climate, while their insulating properties ensure a permanent improvement in any building’s energy consumption. PAVATEX provides more than just high-performance fibreboard insulating materials. It is also able to offer fully-featured, highly efficient airtightness systems which perfectly complement PAVATEX wood fibre insulating materials. Whether roof, wall or floor, whether new construction or renovation, PAVATEX fibreboard insulating materials and airtightness systems provide all-round protection for your house.
Unique all-round protection

The insulation and airtightness solutions provided by PAVATEX offer all-round protection against both cold and heat, as well as against noise and fire hazards. In addition, the permeable wood fibre insulating systems ensure a balanced, healthy indoor climate.

Winter thermal insulation
Thanks to the low thermal conductivity, heat losses can be reduced – a feeling of wellbeing at a comfortable room temperature.

Acoustic insulation
Thanks to their high density and porous surface, the materials provide efficient protection against noise – for comfortable, quiet living.

Airtight
Thanks to our harmonized, tested systems outstanding protection against heat loss and reduced structural damage.

Fire protection
Thanks to excellent burnout characteristics and the high level of fire resistance offered by the components the construction can resist fire for longer.
PAVATEX wood fibreboard insulating materials and PAVATEX airtightness systems – long-lasting, ecological materials offering the reliability expected of Swiss Made quality products – guarantee protection and an outstanding living environment throughout the entire building.

**Summer heat protection**
Thanks to the material’s high heat storage capacity, summer is a welcome visitor: Not hot and sticky, just great home comfort!

**Permeable structure**
Thanks to the low diffusion resistance – the breathable building shell creates a noticeably more comfortable and balanced indoor climate.

**Excellent indoor climate**
Thanks to the use of selected, natural raw materials outstanding comfort and a pleasant indoor climate.

**Sustainable and environmentally friendly**
Thanks to the use of a natural raw material: wood – responsible use of natural resources, low energy requirements, positive CO₂ balance and recyclable.
Systems for insulation and airtightness

Roof
In any building, it is the roof that is exposed to the greatest stress. When insulated and sealed with PAVATEX, it fulfils a number of different functions:
Protection against rain, cold, heat and intrusive noise.

System for roof renovation from outside:
1. PAVAFLEX, the flexible system for insulating between rafters, combined with
2. PAVATEX LDB 0.02, porous airtight membrane, and
3. ISOROOF / ISOLAIR L or PAVATHERM-PLUS, sarking boards for the roof
Above-rafter insulation system:
4. PAVATEX DSB 2, permeable roof sheathing membrane sealed with PAVAFIX, combined with
5. PAVATHERM / PAVATHERM-FORTE, insulating fibreboards for roofs, walls and floors, and
6. ISOROOF / ISOLAIR, sarking boards for the roof, or
7. PAVATEX ADB, permeable membrane insulating system with below-rafter insulating boards:
8. PAVATEX DB 3.5, the permeable, functional vapour barrier for roof and wall use
9. PAVAFLEX, flexible between-rafter insulation, combined with
10. PAVATHERM-PROFIL
Other roof products:
10. PAVATHERM-PLUS+, insulating board for roofs
11. PAVATAPE 75/150, water, weather and UV-resistant sealing material

External walls
The external walls must protect occupants against outside conditions. Whether the walls are rendered or clad, PAVATEX’s insulating and airtightness systems always provide a protective shell ensuring comfort throughout the house.

Insulating system for external walls:
12. PAVATEX DB 28, the porous vapour barrier sealed with PAVAFIX 60 for roof and wall use, combined with
13. PAVAFLEX, flexible wood fibre insulating system, and
14. PAVATEX-DIFFUTHERM, wood fibre insulating board for composite thermal insulation systems

PAVATEX wood fibre insulating materials are tested, certified high-quality materials.
PAVATEX insulating materials and airtightness systems are top-quality products with proven characteristics which provide optimum solutions for every part of the house: roof, walls, façade and floor.

With its wood fibre insulating materials, PAVATEX is setting new standards in the market for environmentally responsible insulating materials. Acting as a multifunctional building shell, they rise to all the challenges facing an insulating material by protecting occupants against cold, heat and noise. PAVATEX products also provide peace of mind in terms of fire protection and building biology. These solutions are ideally complemented by the proven PAVATEX airtight sealing systems. These reduce structural damage, prevent the formation of mould and offer clients and builders alike the greatest possible level of confidence.

**Internal wall**
Most people spend about 90% of their time in closed rooms. PAVATEX insulating materials ensure high-quality indoor air thanks to their permeability and natural qualities.

The most important internal wall products:
15 PAVADENTRO, insulating fibreboards with a mineral functional layer for the internal insulation of external walls
16 PAVACLAY, dry-construction boards made from wood fibre and clay

**Floor**
High load resistance PAVATEX insulating systems below floors, screed and dry flooring ensure peace and comfort. The insulating system with joint laths for heat and noise-insulating woodstrip floors round off PAVATEX’s comprehensive range of floor solutions.

Floor system for solid woodstrip floors:
17 PAVATHERM-Profil, load-resistant insulating fibreboards for floor construction (with joint laths), combined with
18 PAVABOARD, high load resistant insulating fibreboards for floor construction

Other floor products:
19 PAVAPOR, the footfall insulation board for all-round use

The entire range of PAVATEX products and services together with detailed descriptions of the products can be found at:
www.pavatex.com
For renovation and PAVATEX solutions

Whether in the new build or renovation sectors, there are countless examples of the successful use of PAVATEX fibreboard insulating materials and PAVATEX airtightness systems. The requirements placed on these materials are as varied as the applications themselves. In the case of new builds, the emphasis is on low energy consumption, comfort and environmental demands. PAVATEX products fulfil these criteria for new buildings and offer an individual solution for every dwelling.

Following the renovation of a building dating back more than 500 years in Landshut (Germany), the internal insulation of the façade using PAVATEX PAVADENTRO ensures that the structure now complies with the KfW 60 energy standards applicable to new buildings.

The challenging construction and ecological requirements imposed during the renovation of the Château d’Allaman, a protected historic monument in Lausanne (Switzerland), necessitated the use of a PAVATEX system solution consisting of PAVAFLEX, PAVATEX LDB 0.02 airtight layer and ISOLAIR / ISOROOF sarking boards.

During the energy-saving renovation of a building housing three families in Penzberg (Germany), the building’s practically uninsulated roof and wall construction were transformed by a high-performance, multifunctional PAVATEX building shell which has reduced heating costs by more than 50 percent.
In the case of renovation work, the main tasks are to protect the building shell, modernize the dwelling and ensure its long-term value. PAVATEX insulating and sealing systems make a great contribution to boosting the energy efficiency of any building, including historical monuments. PAVATEX can offer a range of products targeted to meet all requirements for the state-of-the-art renovation of old buildings.

At a newly built residential building in Zweisimmen (Switzerland), PAVATHERM-PLUS composite insulating boards together with innovative PAVACLAY clay boards ensure a unique feeling of wellbeing based on clay and wood.

The residential project “Le Toit Vosgien” in the commune of Saint Dié des Vosges (France) was awarded the low energy quality certificate “Bâtiment Basse Consommation Effinergie” thanks to the use of PAVATEX DIFFUTHERM and ISOROOF/ISOLAIR sarking boards.

Using the “Sentinel House“ concept coupled with PAVATEX insulating materials, the wooden house in Garstedt (Germany) opens up new opportunities for healthy living.

For detailed technical information on these and other structures, visit: www.pavatex.com
High performance and ecological benefits

PAVATEX has been producing its natural fibreboard insulating materials in Switzerland for more than 70 years. Using a wet process to manufacture its products, PAVATEX pursues an environmentally friendly path at all times – from the raw materials through to the fibreboard. Thanks to its innovations and extensive investments, PAVATEX has been able to extend its role as a leading supplier of high-quality insulating and airtightness systems.

Wood is a renewable raw material which grows back all by itself. The wet process, which PAVATEX has been using for decades in its manufacturing operations, is of particular environmental benefit: Regularly, numerous independent organizations confirm the high ecological quality and zero environmental impact of PAVATEX products. One of the reasons for this is that, compared to other manufacturing processes and construction materials, PAVATEX uses a particularly high proportion of renewable energies to produce its insulating materials in energy-efficient manufacturing processes. This ensures that CO2 emissions are minimized as early as the production stage.

For its products, PAVATEX uses only domestically grown coniferous wood, and in particular firs and pines. Not only is there an abundant supply of such woods, the fibre quality also ensures a high level of board rigidity compared to the raw material thickness. The wood is sourced from selected local suppliers that have been certified for their ecological, sustainable production by independent, non-profit organizations.

PAVATEX wood fibre insulating materials and the associated airtightness systems also make an important contribution to practical climate protection and improve the CO2 balance. While growing, the trees capture carbon from the atmosphere and store it in their wood. In practical terms, every PAVATEX product represents an extension to the forest’s storage capacity, thus permanently reducing the CO2 load because every cubic meter of pine wood used stores the equivalent of approximately 0.7 tonnes of CO2. At the same time, buildings sealed with PAVATEX airtightness systems ensure long-term energy savings which help save resources and reduce their carbon footprint.
Expertise and commitment

From initial development through production and on to delivery: PAVATEX provides extensive advice, fit-for-purpose products and reliable logistics. This is possible thanks to PAVATEX’s employees’ commitment and enthusiasm, expertise and experience.

Innovative, ecological, multifunctional – PAVATEX’s modern insulating wood fibreboards are a product for the future. They are the result of the years of expertise, enthusiasm for innovation and human achievements that have made PAVATEX the leading manufacturer of high-quality insulating systems in Central Europe.

From technical support through production and on to delivery, the customer is the focus of PAVATEX’s attention. Customers can rely on comprehensive service and professional support Europe-wide. Mature products, extensions to its production capacities and intensive training for builders and partners are additional facets of the company’s forward-looking philosophy.
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