



# INDUSTRIAL BUILDING IN LORSCH, GERMANY

MAPEPLAN MEMBRANES USED TO WATERPROOF THE SAW-TOOTH ROOF

Highly specialised mechanical equipment is required to assemble automobiles. The German company Expert-Tünkers – which produces conveyor belts and automated production lines – is involved in exactly this sector, supplying the type of equipment that enables car manufacturers to mass-produce automobiles.

Expert-Tünkers, whose head office is in Lorsch, in Hessen, operates at an international level in the field of materials handling and the production of complex production equipment. The manufacturing facility in Lorsch is where all the components used to build high-precision conveyor belts are made and tested, and the finished conveyor belts are then sold to companies such as BMW, Audi, Mercedes Benz, Volkswagen, Ford, Vauxhall, Jaguar, Porsche and Maserati.

## **CUTTING-EDGE LOGISTICS UNDER JUST ONE ROOF**

In 2015 the management of Expert-Tünkers took the decision to completely refurbish the roof of the works, which has a total surface area of 6,000 m<sup>2</sup>. The works has a saw-tooth roof, a special type of roof typically used for industrial buildings, which allows the interior to be illuminated with an even light during the day. Saw-tooth roofs are made up of a series of ridges – 12 in this case – each with two distinct pitches. The first pitch is usually solid, that is, covered with brick, reinforced cement or other roofing material, while the other pitch, which is often vertical as in this case, is glazed.

This German company has a reputation of being one of the most reliable suppliers to international car manufac-

turers, and this reliability is also based on its capacity to provide an uninterrupted service of technical assistance, logistics support and equipment for production lines. And for this very reason the company working on the roof was required to carry out the intervention on a round-the-clock basis between May and December, and without causing any disruption to the activities in the production areas. The roofing company also had to ensure that all necessary measures were taken to prevent rain or snow disrupting the work below, and have the skill and capacity to work on such a large roof with such steeply sloping ridges.

### COUNTING ON HIGH TECHNOLOGY PRODUCTS

Mapei Technical Services was on hand to help the roofing company choose the most suitable materials for this particularly complex intervention. Mapei engineers proposed using waterproofing membranes made by Polyglass, a company belonging to Mapei Group, which is particularly renowned for its MAPEPLAN line of synthetic waterproofing membranes.

For this particular intervention MAPEPLAN ALU SK 1500 was proposed, a special vapour barrier manufactured and distributed exclusively in Germany. Ideal for roofs according to DIN 18234 with more than 2,500 m<sup>2</sup>, this membrane has excellent workability on site, is resistant to tears, self-adhesive and crack-bridging, may be applied at temperatures from +5 °C to +40 °C and, once applied, it forms an excellent vapour barrier and is immediately resistant to rain. To get sure results MAPEPLAN T I was installed, a particularly strong waterproofing membrane with excellent solar reflectance which is resistant to atmospheric agents, low temperatures, UV rays and ageing. The facility and its new roof was handed back to the client within the agreed deadline and work was completed in line with all the client's requests and specifications.

## MAPEPLAN

### Synthetic waterproofing membranes.

Thanks to the use of our exclusive "multi-extrusion coating" technology, MAPEPLAN PVC-P and FPO membranes stand out for their impressive performance characteristics and durability and excellent workability and weldability, which combine to guarantee that the MAPEPLAN system forms a seamless, watertight waterproofing system. A Smart White version is also available: in this case, the top layer is in a special white colour which guarantees excellent solar reflectance and reduces the surface temperature of roofs by more than 50%.



### IN THESE PICTURES.

MAPEPLAN synthetic membranes have been chosen to waterproof the roof.

### TECHNICAL DATA

**Expert-Tünkers Works**, Lorsch (Germany)

**Period of Intervention:** 2015

**Intervention by Mapei:** supply of products to refurbish the saw-tooth roof of the main building of the production department

**Client:** Expert Tünkers GmbH

**Roofing contractor:** aTmos Industrielle Lüftungstechnik GmbH

**Mapei Co-Ordinator:** Jörg Gehring (Mapei GmbH)

### POLYGLASS PRODUCTS

**Saw-tooth roof:** Mapeplan Alu SK 1500\* and Mapeplan T I\*

\* Manufactured and distributed on the German market by Mapei GmbH

For further information visit our websites at [www.mapei.de](http://www.mapei.de), [www.polyglass.com](http://www.polyglass.com) and [www.mapei.com](http://www.mapei.com)

