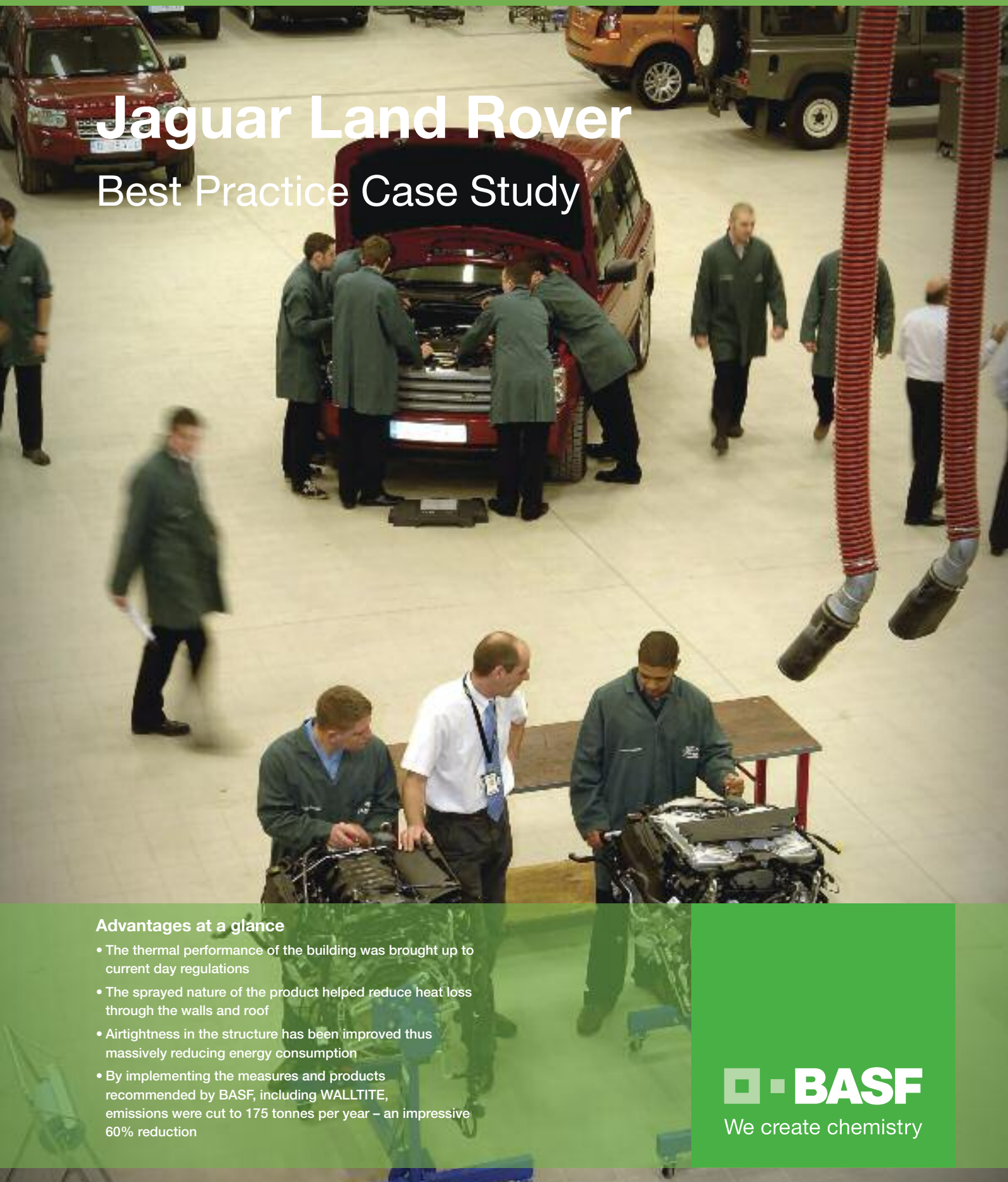
WALLTITE®

The airtight insulation solution

Jaguar Land Rover

Best Practice Case Study



Advantages at a glance

- The thermal performance of the building was brought up to current day regulations
- The sprayed nature of the product helped reduce heat loss through the walls and roof
- Airtightness in the structure has been improved thus massively reducing energy consumption
- By implementing the measures and products recommended by BASF, including WALLTITE, emissions were cut to 175 tonnes per year – an impressive 60% reduction

BASF

We create chemistry

Jaguar Land Rover
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Project data

Project: New Technical Academy
Client: Jaguar Land Rover, Leamington Spa
Scope of Project: 4000m²
Consultants: Jaguar Land Rover
Products Used: WALLTITE spray foam insulation

Project Description

The new Jaguar Land Rover Technical Academy occupies a floor area of over 4,000 m² including a 60 metre workshop and training zone equipped with vehicles, components and systems for hands-on training.
The facility also has 16 classrooms, including four that can accommodate vehicles.

The installation of WALLTITE spray foam insulation to the roof and walls of this prestigious new training academy provided dual benefits. That of increasing the insulation value and at the same time reducing ventilation losses by sealing air gaps to bring about a 60% emissions reduction.

Challenges

The client was faced with executing the total refurbishment of a dated, leaky and poorly insulated building into a state of the art training centre under significant time constraints.

Luwoge Consult, an energy consultancy team of BASF, carried out a thermal assessment of the building which revealed that, without improvement it would emit 418 tonnes of carbon dioxide per year. The building in its existing state had an estimated U-value of 1.87W/m²K.

The challenge was therefore to source products that would provide for a sustainable, energy efficient building that satisfied all local planning laws and the needs of the client's insurance company.

Solution

Together with BASF plc, Jaguar Land Rover looked at a vast range of energy efficient and sustainable construction products. One vital aspect of the project was to upgrade the insulation on the roof and walls and make the building airtight. For this aspect they chose a seamless, airtight insulation, Class 1 fire-rated solution – WALLTITE.

WALLTITE is a spray foam insulation system which enables it to be applied directly onto the existing laminate board insulation, with very little preparation. The in-situ application meant the foam expanded as soon as it hit the substrate, sealing it completely and preventing air leakage.

WALLTITE comprises a closed cell structure which helps control the movement of vapour and moisture throughout the building thus reducing the risk of condensation and mould. The self adhesive properties of the system also meant that no extra costs were incurred for fixings which could also potentially; increase the number of thermal bridges in the building.

The spray foam insulation ranged from 75mm thickness on the roof to 35mm on the walls. The insulation foam was applied at a rate of 1,000m² per week and this part of the project took four to five weeks to complete.

Customer satisfaction

The use of solutions such as WALLTITE ensures sustainability over the life span of the building ensuring that Jaguar Land Rover will be able to take advantage of the improved insulation for many years to come.

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