Case Study: Office building, Munich

FACADE CONSULTANT:  
DS-Plan, Stuttgart

FACADE COMPANY:  
Dobler Metallbau, Munich


LOCATION:  
Arnulfpark, München

BRIEF DESCRIPTION:  
Insulation of element facade

SCOPE OF SERVICES:  
The new building is equipped with a new integrated solar protection system, an external blind. To ensure separation of the thermal and fire-protection functions, 20 mm CALOSTAT® was fitted laterally into each of the blind boxes, amounting to about 750 square meters in all.

DESCRIPTION OF OBJECT:  
The office complex is located in Arnulfpark, the new residential and commercial district of Munich between the Hackerbrücke and the Donnersbergerbrücke.

The new building is fitted with facade elements of a total area of about 13,000 square meters and the novel external-blind solar protection system. The external blind is a facade-integrated solar protection system with high wind stability and adjustable slats. This external solar protection system also matches the shading system used in the mullion and transom facade of the Munich office building.

The blind box of the system is raised during start-up into the facade-integrated installation space, which is concealed in front of the floor slab. When open, the solar protection is not visible, so that the facade image is not visually broken up. The characteristic golden-bronze aluminum frames of the building carry forward the three-dimensional structure of the facade elements in the overall architectural ensemble.
In 2015 Dobler Metallbau modified the installation space of the external blind by replacing the conventional 120 mm insulating-material packs with 20 mm CALOSTAT® with comparable thermal-insulation and fire-protection performance, and thus obtained the necessary extra space. In this area, therefore, the facade fulfils in equal measure, and without significant loss of space for the external blind, the highest requirements on thermal separation and fire protection between the facade elements.

The explanation for the excellent fire protection of CALOSTAT® is its almost temperature-independent conductivity. It shows no significant increase in thermal conductivity over the customary range (10 °C – 80 °C) of real surface temperature at the facade, and even beyond this range. CALOSTAT® satisfies all the fire protection requirements here, without the need for any special fire-protection paneling.

In addition, CALOSTAT® allows the use of slim and light construction elements and a high degree of design freedom in building planning.