

PROJECT REPORT OPALFILM® SUN PROTECTION COATING

REWE Logistikzentrum RED 63, Neu-Isenburg

The building

The REWE group's logistics centre in Neu-Isenburg is one of the retailer's newest and most modern logistics warehouses. It is from this warehouse that REWE supplies approximately 220 markets in the region. More than 24,000 dry goods undergo sorting and storage at the RED 63 Logistics Centre. The roof of the 65,000 square-metre building has 335 glass domed windows that illuminate the interior with the highest possible level of natural daylight.



The problem

Although the roof domes do allow plenty of daylight and sunlight to penetrate into the interior, which has a positive effect on the employees while saving electricity for powering artificial lighting, there is always a risk that the continuous influx of solar radiation into the hall will cause it to heat up excessively, leading to a considerable increase in the internal temperature. As food is stored at the logistic centre, it is important to have an effective mechanism of repelling heat and protecting against temperature rise, especially in the summer months.

The management at the REWE group therefore went in search of a solution that was able to reduce the heat load while only having a minimal impact on the amount of daylight. Owing to the characteristic shape of the window domes, it was not possible to use standard flat glass films to provide protection against sun and heat. For this reason, REWE contacted the HAVERKAMP sun protection experts to help with this special problem.

The solution

After conducting an on-site assessment, accompanied by intensive tests, HAVERKAMP created a coating, developed especially for such curved windows, comprising a lacquer base that contains small reflective pearls that effectively repel sunlight. This new OPALFILM® sun protection coating was then applied to a total surface area of 625 square metres. It possesses good light dispersion, is weather-resistant, creates a good internal climate, and has good wet grip properties. Measurements confirm that the coating reduces the level of heat build-up in the building and offers good UV protection. OPALFILM® sun protection coatings are suitable for all multi-dimensional glass or polycarbonate surfaces.

The management of the REWE Group is highly satisfied with this unique solution. Since it was installed, the room conditions in the logistics hall have become significantly more pleasant. The desired heat protection effect was successfully realised.



Client:

REWE-Group,
Neu-Isenburg

Problem:

Heat and sun protection for roof domes

Solution:

OPALFILM® sun protection coating

Area:

625m²