



WORLD WIDE WEAVE

Woven solar protection for sustainable architecture

Sustainability is one of the central challenges in modern architecture. Ecological CO₂ footprints are often considered just as important as functional criteria, particularly when it comes to public facilities. As the outward projection of buildings and their interface to the environment, strict design requirements are placed on facades. Facade solutions that combine attractive design and sustainable functionality are therefore particularly in great demand. The metallic mesh produced by GKD – GEBR. KUFFERATH AG has proven itself in countless applications and its many different designs offer effective solar protection as a facade cladding solution.

When planning a new building complex for the Research & Academic Center at the University of Florida in Lake Nona, certification to LEED Platinum (Leadership in Energy and Environmental Design) was one of the key goals. For the glass facade of the modern building, the architects from HOK in Tampa, USA, selected a solar protection solution that also lends the building its recognition value as a design statement. Like a protective shield, the facade cladding made of around 750 square metres of GKD stainless steel mesh wraps around the sickle-shaped front of the building. The Escale 7x1 mesh repels a large proportion of the solar radiation striking the building, yet still allows enough daylight into the laboratories and offices behind the facade.

The transparent look of the metallic mesh from GKD was also one of the key factors why the architects from NBBJ in San Francisco chose to go with the GKD solar protection solution for the *City of Hope* research hospital in California. With an inviting glass structure, the hospital is keen to create a



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visual reference to the outside world for patients. This made effective solar protection absolutely indispensable for the facade, as one of the objectives was to minimise the costs associated with air conditioning the rooms. An approximately 500 square metre facade cladding made of Futura 3110 metallic mesh now grants patients and employees at the *City of Hope* unrestricted views of the green world outside and at the same time supports the sustainable and economic overall balance of the building.

Around 900 square metres of Omega 1510 stainless steel mesh encapsulate the Mark Jefferson Science Complex at Eastern Michigan University. For architects Lord Aeck & Sargent, the sun protection facade was one of the key factors contributing towards LEED Gold certification. For this, a total of 89 rectangular, building-high mesh panels were given a matte finish to offer even greater solar protection. The robust nature of the mesh reduces follow-up costs to a minimum, and the fact that the stainless steel can be fully recycled at the end of its useful life makes an important contribution to the sustainable character of the building.

GKD – WORLD WIDE WEAVE

As a privately owned technical weaver, GKD - Gebr. Kufferath AG is the world market leader in metal, synthetic and spiral mesh solutions. Four independent business divisions bundle their expertise under one roof: Industrial Mesh (woven metal mesh and filter solutions), Process Belts (belts made of mesh and spirals), Architectural meshes (façades, safety and interior design made of metal fabrics) and Mediamesh® (Transparent media façades). With its headquarter in Germany and five other facilities in the US, South Africa, China, India and Chile – as well as its branches in France,



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Spain, Dubai and worldwide representatives, GKD is close to markets anywhere in the world.

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