WORLD WIDE WEAVE

GKD at BAU 2019: Metal fabric in a new light

Focus on colors, structures, surfaces, and security

The leading international manufacturer of metal mesh systems, GKD – Gebr. Kufferath AG (GKD), will be presenting trendsetting solutions for architects, installers, and investors at BAU 2019 in Munich. The products on show will range from façade, solar protection, and security systems, all the way up to innovative solutions and metal fabrics for interior construction. The focus is not only on the unrivaled variety of colors and surfaces from a single source here, but also on general building approval (abZ), which has only been granted for GKD fabrics to date. The company will link the products, solutions, and services presented to create an overall portfolio that secures design freedom and planning reliability.

The technical weavers from GKD will once again be demonstrating how they address the requirements of modern architecture from January 14 to 19, 2019 at BAU, the world's leading trade fair for architecture, materials, and systems. Whether new construction, change of use, renovation, modernization, or individualization: metal mesh façades from GKD respond to the associated challenges. At the same time, they meet the strictest demands in terms of design, convenience, and security. Thanks to their combination of efficient shading and high transparency, they improve both the ambiance and energy efficiency of buildings. They also combine this thermal and visual comfort with virtually unlimited design options. The range of proven GKD fabrics and custom new developments then receives an additional dimension through color and surface design.

Colored and printed fabrics

A **screen printing process** is used to print complex graphics on flat and dense metal fabrics such as OMEGA 1510 – ranging from just a few centimeters up to several meters in size. The layer thickness, which is up to ten times greater than other printing processes, lends the fabrics treated in this way a lasting brilliance and also makes them weather-resistant for exterior applications. A great example of this is a medical center with daycare facilities in Freiburg, whose 750 square meter mesh façade was printed with a forest motif.

GKD processes flat or round wires made of stainless steel or aluminum, which receive **true-color coating with special paint in a continuous process** to create spiral or cable mesh. The coating, which is baked on to create a rugged finish, guarantees decades of brilliance, as well as UV and weather resistance. The special fabric used in the façade of the Kunsthalle Mannheim museum of modern and contemporary art was given its distinctive bronze color using this process, as were the crescent-shaped canopies above the travelators at Muscat International Airport.

Color-anodized aluminum meshes from GKD have been proven worldwide in both outdoor and indoor applications. Their low volume weight qualifies them for large-format ceiling elements made of CMP fabric or specific façade elements. The properties of the oxide layer are matched to the respective customer requirements through use of custom electrolyte and tank parameters. Examples of solar protection solutions with this process include the bronze-colored, movable folding shutters on the five-story Luna apartment block in Melbourne or the golden, building-high curved façades made of spiral mesh at the École d'Art de Calais. Ceilings produced from golden CMP fabric lend the representative interiors of the ParisLongchamp

racecourse a warm glow. A gold-anodized special mesh clads the three-story, open atrium in the HQ of Chinese Internet giant Tencent.

Digital printing allows high-resolution photos or complex graphics to be printed on dense metal fabrics such as OMEGA 1510 or fine metal mesh such as KIWI for indoor applications. Even images with fine color gradients can be produced in this way.

GKD offers another important way to sustainably enhance buildings with fabrics produced from **non-ferrous metals** such as bronze, brass, and copper. The bar at the Empire Riverside Hotel in Hamburg, with its canopy produced from MANDARIN bronze metal fabric, and the building shell of the synagogue in Munich, produced from bronze spiral mesh, are two great examples of this.

GKD uses an **etching** process to transfer graphic elements onto the smooth top surface of metal fabrics such as OMEGA 1510. The surface, which is modified by blasting, is then permanently weather-resistant without the need for any further processing steps. The fabric treated in this way draws its special impact from the visual merging of the motifs with the metal mesh. This creates patterns which appear either transparent or opaque, depending on the viewing direction and incidence of light. Façades in the US, such as those at the West Bank Station in Minnesota or the clinic of the Houston Area Safety Council (HASC) in Houston, are accordingly attention-grabbing.

Transparent media façades

The **MEDIAMESH®** and **ILLUMESH®** transparent media façade systems from GKD bring color and movement to the metal fabric. While MEDIAMESH® screens employ LED profiles, which are integrated into the

Tigris stainless steel mesh, ILLUMESH® excels through its LED profiles which are fitted horizontally in special brackets in front of the fabric. The different types of playback created by this – brilliant images and videos with MEDIAMESH®, colorful staging with holographic effects with ILLUMESH® – open virtually unlimited applications for advertising, entertainment, and art installations. Thanks to their transparency, the large displays still grant unrestricted outward visual connections, as well as use of natural daylight. The transparent media façade systems at the Port Authority coach station or Muscat International Airport are good examples of this.

USP: General building approval for metal fabric façades

To date, only GKD metal fabric façades, freely suspended ceilings, and vertical fall guard protection systems enjoy **general building approval** (abZ) worldwide and have been granted the status of approved construction products as per the German Construction Products Regulation (BauPVO). This approval means security from the outset for architects, installers, and investors, who then also do not require costly or time consuming approval to be issued on a case-by-case basis. Indeed, the uncertainties associated with this simply disappear altogether when using GKD systems. Beside mounting fixtures, the approval security that comes with general building approval (abZ) also qualifies the TIGRIS and OMEGA 1520 cable meshes, as well as the ESCALE 7x1 spiral mesh for façade design in both public and small construction projects. The most recent example of a public sector project is the current execution of the parking garage façade at the employment agency in Oberhausen. General building approval (abZ) also represented the indispensable basis for the entire static calculation and inspection process of the mesh façade of the Kunsthalle Mannheim museum of modern and contemporary art that was opened this year – despite the fact that the special fabric used here is not part of the general building approval.

Motor-operated roll-up mesh systems

GKD also offers reliable security with its motor-operated roll-up stainless steel mesh systems. This attractive alternative to conventional expanding lattice and roller shutters sets high standards at widths of up to eight meters and heights of up to five meters. The woven roll-up mesh systems combine a sophisticated look with technical robustness and can be used equally effectively indoors and out. With a freely selectable degree of transparency and three different types of fabric – TIGRIS, LAGO, or SAMBESI – they open up previously unknown design options. Whether in shopfitting applications, underground parking garages or for cordoning off access areas in the fields of catering, industry, and residential buildings: the perfectly matched system, comprising GKD metal fabric and proven technology from Ferdinand Braselmann for complete roll-up door systems, is what makes the innovative roller shutters a permanently secure closure solution.

Premiere for new fine fabric

GKD will also be presenting a new range of fine fabrics for the first time at the BAU fair in Munich. Produced on modern multi-shaft looms, they fascinate with their three-dimensional honeycomb structure. Significantly finer than the familiar KIWI fabric and highly transparent, they open up completely new application options. GKD will be presenting multiple versions of this innovative 3D fabric type made from non-ferrous metal and also stainless steel at the BAU fair.

Visit GKD – Gebr. Kufferath AG
at BAU 2019 in Munich
14 – 19 January
Hall B2, Stand 100

8.742 characters incl. spaces

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

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