



WORLD WIDE WEAVE

## **Metal mesh: Façade cladding as illuminated focal point**

**For the new Kunsthalle Mannheim building, gmp architects from Gerkan, Marg and Partners selected stainless steel mesh from GKD – GEBR. KUFFERATH AG. As a façade cladding with varying transparency, the bronze-colored shell translates the scale of the building, creating a balanced sense of near and far.**

Following two-and-a-half years of construction work, the new Kunsthalle Mannheim building (museum of modern and contemporary art) has replaced the rather dilapidated Mitzlaff building, blending in harmoniously with the existing surroundings on Friedrichsplatz as a monolithic, seamless concrete structure. A total of 13 offset cubes of differing widths and heights gave rise to a city within the city, which reinterprets classic museum architecture while honoring Mannheim's historical city layout. Seven of these cubes are grouped around the 700-square-meter, 22-meter-high atrium of the Kunsthalle. The woven façade cladding of the atrium made of a special mesh from GKD offers passers-by inviting insights into what goes on inside the museum, which underscores the sense of togetherness between the city and the museum. The fabric skin has a much higher degree of transparency in front of the large-format glazed surfaces than in front of the fiber cement panels that clad the cubes. This varying transparency allows the façade cladding to retain its textile effect even from a distance. For the specially developed mesh design, GKD wove stainless steel wires and tubes of two different diameters – three and 25 mm – into four-wire warp wire groups made of untreated stainless steel. The varying stress ratios in the fabric, due to the differences in wire thickness, had to be completely balanced out using weaving techniques. This allows the façade to meet the strict static requirements needed to withstand exposure to wind and snow. In view of the



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different fabric components and coating procedures, the bronze color shade specified by the building owner posed an additional challenge for GKD. Thanks to intelligent coating technologies though, GKD was able to guarantee the desired homogeneity of color for all components. The soft shine of the warm bronze shade complements the color of the sandstone in the adjacent buildings. During daylight hours, the metal mesh diffusely reflects the sunlight and urban life of the city. In the evening, the Kunsthalle is transformed into the illuminated focal point of Mannheim's most elegant square.



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## **GKD – WORLD WIDE WEAVE**

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