

Case Study: Santiago Bernabéu Stadium

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ABSTRACT

On the one hand the Bernabéu Stadium project is a show piece of how long project lead times in Textile Architecture can extend. On the other hand it is a case study of textile materials competing with other materials like stainless steel. In Madrid this competition could only be partly decided for membranes.

In a first step the presentation will explore the design of German architects von Gerkan, Marg and partners, gmp. They designed a new envelope for the stadium building which already got a couple of extensions and refurbishments within the last decades. gmp architects found a way to reshape this iconic stadium giving it a totally new appeal. Not to disturb too much of the surroundings was an important issue because the stadium is quite central in the city of Madrid. The necessary exchange and negotiation processes with the surrounding neighbourhoods was one reason that the project was delayed enormously.

In a second step the presentation will show how soon the material choice proofed a focal point in the planning process – mainly for the stadium roof. Starting in 2015 there were various discussions between material supplier and architects how to best solve the needs – the specification contained seemingly contradicting quality requirements for highest translucency on the one hand and silver colour on the other. The metallic appeal was an important design parameter. There was a strong competition between shiny, seemingly forever durable stainless steel and lightweight fabrics with an obviously much smaller carbon footprint.

The presenter is optimistic that by the time of the Membranes Conference in Valencia, the installation of the lower roof side will be finished – at best even the rest of the roof will be completed.

Keywords: lightweight building envelope, membrane mesh, material competition between fabric and metal claddings