

## **SIKA AT WORK** KING FAHD NATIONAL LIBRARY, RIYADH, SAUDI ARABIA

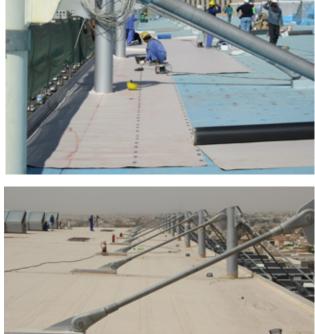
ROOFING: Sarnafil®, Sikalastic®



**BUILDING TRUST** 

### KING FAHD NATIONAL LIBRARY, RIYADH, SAUDI ARABIA





#### PROJECT DESCRIPTION

The new National Library in Riyadh, Saudi Arabia completely encapsulates the original library building which was built in the 1980's. The new contemporary structure features a stunning PTFE façade with a mechanically fastened exposed Sika Sarnafil<sup>®</sup> TPO roof and has become another of Riyadh's landmark buildings alongside the iconic Kingdom and Faisaliah Towers. It was completed and went into use for its intended purpose in November 2013.

#### **PROJECT REQUIREMENTS**

The new construction included 18,000m<sup>2</sup> exposed single ply roofs on a lightweight steel structure, which is a rare form of roof construction in Saudi Arabia. However the great co-operation between the roofing applicator BMC, the main contractor Saudi Bin Laden, and following trades ensured that the roof was fully protected at all times and installed far quicker than a traditional concrete construction process. In addition, Sika was able to utilize its high performance MTC liquid polyurethane membrane, Sikalastic<sup>®</sup> 621 to waterproof the 56 cantilevered steel trusses that penetrate the roof and would have been impossible to detail using a sheet material.

#### SIKA SOLUTION

Sika supplied its Sarnafil® TS77-15 TPO membrane as the main roof covering, also supplying Sarnafast® fasteners to secure the 110mm thick extruded polystyrene insulation boards. The single ply membrane was also mechanically fastened using the fast-track Sarnafast® in seam fixing method. Sarnatred® walkway pads were then installed on top to create maintenance access. The roofs cantilevered trusses were coated with Sikalastic® 621.

Sika Sarnafil® roofing system was specified for the project because of the membrane's proven track record of operating in extreme climates, and the architect's experience of using exposed Sarnafil® membranes in Germany convinced Thomas Lucking of Gerber Architekten that a Sarnafil® TPO roof was the right solution for the library.

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#### PROJECT PARTICIPANTS

Contractor: Saudi Bin Laden Architect: Gerber Architekten, Dortmond, Germany Engineer: Bollinger & Grohmann Ingenieure Sika organisation: Sika U.A.E. L.L.C.

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