Project. The National Library in Riyadh, Saudi Arabia, has undergone an energy-saving conversion. The square new-build with 68 500 m² of floor space encases the original 1970s library with a vibrant, geometrical arrangement causing it to rise noticeably above the heterogeneous city skyline. Set in the midst of urban parkland, the new library is open and transparent, and despite its size blends gracefully into the immediate surroundings. The new construction forms a cubic „ring“ around the old building – under a permanent protection order – to create a unique architectural entity.

Concept/Design. Beneath the roof, a tensioned 15 000 m² textile membrane ceiling filters the intense daylight flooding in through elongated skylights, ensuring even and diffuse illumination of the space below. During the hours of darkness, the same effect is created by means of lamps installed above the light ceiling. In the middle of the roof is an atrium, below which is an open-plan reading area. Located on the ground floor surrounding the original building is the main entrance hall, exhibition areas, a restaurant, and a book store. Access to the women’s library is separate.

Construction. In collaboration with Art Engineering, Sefar developed a new system for covering these large, flat areas. Aesthetics were very important (wafer-thin joints and seam profiles) as were an uncomplicated manufacturing process and assembly using specially developed tools.

The innovative Lightceiling system is ideal for large, flat, backlit ceilings – whether with artificial or natural light. In this case, the pre-assembled fabric sections were set into specially developed aluminium profiles and successively tensioned.

Manufacture and assembly was undertaken by local contractors who had been fully briefed.