Retractable Roof Tecklenburg for Form and Force 2019

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Abstract
Membrane structures are often used as an interim measure and rarely survive for more than 20 years. In particular, textile constructions are characterized in this context by their special aesthetics and by the demolition are often lost real engineering artworks.

An exception is the roof of the open-air theatre in Tecklenburg – it is a fine example of how durable lightweight constructions can be and what their potentials are. formTL, which emerged from the IPL in 2004, was involved in inspections of the roof and supported Cenotec in its 2017 modernization.

Topics of the lecture:
We show previously unknown original design ideas from our IPL archive. Based on original 3D CAD data and photos of the inspections, the original design is shown and explained, with a focus on the special nature of the reface. Emphasis will be put on the "weak spots", the aging of which necessitated an exchange of the membrane envelope and our corrections and "soft" optimizations for the next period of use.

References