

Civil engineering and  
tunnel construction

Under extreme time pressure

## Hall sealing with Leister GEOSTAR G7

60,000 m<sup>2</sup> of logistics halls were erected in a very short time in Jüchen, in the Lower Rhine region of Germany. TAT-Abdichtungstechnik were able to fully seal these within a narrow window of time thanks to the GEOSTAR G7 from Leister.

TAT Abdichtungstechnik Troisdorf GmbH, whose headquarters are in Troisdorf, near Bonn, has supplied and laid geosynthetics since 1993 for the civil, structural, and hydraulic engineering industries, as well as the environment protection sector – most notably focusing on sealing projects according to Section 19 I WHG (German Federal Water Act). It is an authorized specialist company according to Section 19 I WHG and has a corresponding external monitoring contract with TÜV Rheinland e.V.

Managing Director, Helmut Simon, reports more than 300,000 m<sup>2</sup> of hall seals per year, including projects in other European countries. He considers quality, perfection in execution, and timely completion to be the highest priorities – which is why the portfolio also includes projects which have been presented with awards by specialist panels, such as the FedEx logistics center at the Cologne Bonn Airport (13,000 m<sup>2</sup> total sealing area) and the DHL Health Care logistics center in Unna (120,000 m<sup>2</sup> total sealing area). The new project is proof that he has the necessary experience: 5 halls need to be sealed for a logistics company. The fact that the total sealing area comprises



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60,000 m<sup>2</sup> is an ambitious goal in itself, but the project must also be completed in just 8 weeks.

Leister Development Engineer, Adrian Wirth, Product Manager, Eddie Weiser, and the hot-air technology team are visiting a TAT-Abdichtungstechnik construction site in Jüchen.

TAT will be one of the first companies in Germany to weld with the Leister GEOSTAR G7, which they will do for the hall seals made of 3 mm HDPE film.

They had previously used an automatic welder (not from Leister), but it reached its limits when faced with a project of this magnitude. The material thickness in particular presented difficulties, which is why the device quickly failed. And when it did work, it always required two people to work the welder simultaneously. It would



otherwise have been impossible to prevent the device from causing undesirable wrinkles.

And how is it going with the Leister GEOSTAR? Helmut Simon reports: «We have had really great experiences with the GEOSTAR. It welds virtually smoothly.» He also sees the advantages in the usability and not least in the high speed: «The personnel achieve optimum welding results very quickly. Only one person is required to operate the GEOSTAR. This, of course, makes a huge difference from our previous experience. Especially when there is extreme time pressure, it is not enough to achieve the perfect seal – it must also be done very quickly. The welding speed of the GEOSTAR is impressively high. Most importantly, it always remains on its track. For our work, the GEOSTAR is a real economical success.»

When the GEOSTAR G7 is used under extremely difficult conditions, it shows its full flexibility. The Leister engineers are fully aware of this and have two tips to offer:

- 1. When working on remote construction sites, we recommend taking a replacement hot wedge. It takes only seconds to replace the hot wedge and you can continue working straight away.**
- 2. The formation of tunnels in very warm temperatures can be avoided by holding the GEOSTAR at a lower angle.**

**Leister Sales and Service Center:**

Heisslufttechnik Flocke, Germany

**Client:**

TAT-Abdichtungstechnik, Troisdorf, Germany  
www.tat-troisdorf.de

**Materials:**

Geomembrane HDPE 3 mm

**Leister products:**

GEOSTAR G7, WELDPLAST S2, and TRIAC ST

**Text / photos**

Heisslufttechnik Flocke

The GEOSTAR welded each of the films, but there were also other Leister devices that carried out important welding work:

The WELDPLAST S2, for example, which features a high welding wire throughput, welded the pillar seal. And the TRIAC ST hand welders were used when preparing the film.

**Summary: The GEOSTAR G7 is a must for anyone who cannot do without quality, reliability, and high performance when it comes to laying and welding HDPE.**



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