

# Project W036: Adhesion properties of short-liners



Tensile-adhesion testing of short-liners

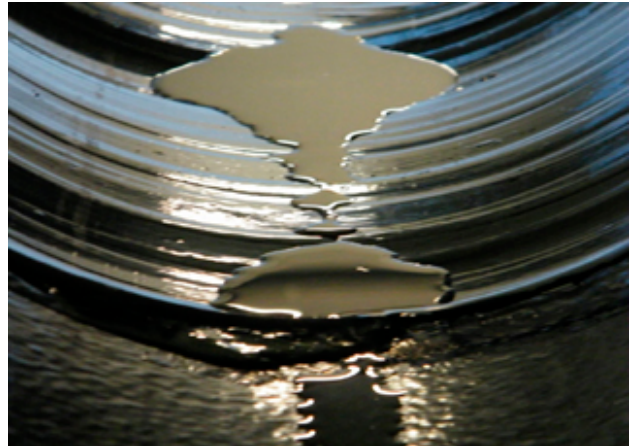
Short lengths of selected repair systems were tested under external water pressure to examine their potential for sealing pipes against groundwater pressure. Comparative tensile-adhesion tests were undertaken using four short-liner systems on eleven different surfaces in order to determine the factors influencing performance and any need for surface preparation when refurbishing using short-liners.

The systems predominantly exhibited good performance, and confirmed that repairs aimed at sealing against external water pressure are possible in principle. However, the extent to which differing results might be found in the case higher water pressures and/or larger volumetric water flows remains to be determined.

## Project title

“Validation of the adhesion properties of short-liners on variously pre-treated substrate surfaces”

# Download Report



External water-pressure test  
indicating ingress of water

Concluding report (99 pages)

## Project management

IKT - Institute for Underground Infrastructure

## Client

Ministry for Climate Protection, Environment, Agriculture,  
Nature Conservation and Consumer Protection of the German  
Federal State of North Rhine-Westphalia

## Contact

**Markus Gillar**

**Dipl.-Ing.**

T: +49 (0) 209 17806-46

E: [gillar@ikt.de](mailto:gillar@ikt.de)