

## Stormwater Percolation System SIROBAU-Rw of PE-HD

### Site Report Moers Municipal Pipe Percolation Unit with SIROBAU-Rw DN 600

- **Project** expansion of the car park "Moerser Benden" including restoration of the stormwater discharge system by a pipe percolation unit
- **Structure** large-scale percolation system with 20 strands of 600mm pipe
- **Client** Municipality of Moers, Department for Transport and Public Works
- **Building contractor** Fonteyne Tief- und Straßenbau GmbH, Geldern
- **Building period** January 2014 till April 2014
- **Size of unit** surface area about 35m x 60m  
installation depth about 1.20m
- **Pipe products used** SIROBAU-Rw of PE-HD  
totally perforated percolation pipe, type TP  
nominal size DN 600







### Construction of a municipal car park and restoration of the drainage system by a 600mm SIROBAU-Rw pipe percolation unit

The existing public car park near "Moerser Benden" in the city centre of Moers was to be expanded. Including all ancillary areas, the project comprised the size of three football fields. Smooth discharge of the accumulating surface water within the built-up area had to be ensured. The capacity of the combined waste water sewer system already being at its limits, it was necessary to find alternative solutions for the discharge of water.

Decentralized percolation of the surface water in a combined pipe/gravel percolation system turned out to be an operable and economic solution. Basic prerequisites were a useful infiltration value of the soil ( $k_f$  value) and a sufficiently large surface area for the percolation system. Both criteria could be met.

Initially, the project was to be implemented with porous concrete pipes of 600mm in diameter. In the course of the planning work, however, preference was given to HEGLER's PE-HD percolation pipe,

SIROBAU-Rw, of nominal size DN 600 and in totally perforated design. The main reason for this decision was the advantages the pipe offers in terms of installation and handling as well as the long-standing and positive experiences with PE-HD products as regards long-term stability in the installed condition and use under loads (SLW 60 classified roads).

Because of the size of the facility and the local conditions, the overall structure of the percolation unit was built with site-mix concrete.

The use of SIROBAU-Rw pipes allowed speedy and efficient execution of the construction work so that the area could be reopened to traffic within a very short time. An essential aspect to the Municipality of Moers, professional and economic workmanship being most important.

#### Installed pipe system SIROBAU-Rw of PE-HD

- **Totally perforated pipe SIROBAU-Rw**  
nominal size DN 600: 1,350m
- **Manhole liner of overall structure**  
nominal size DN 600: 40pcs



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