



## SIMONA® PE-EL pipes at Boehringer Ingelheim



*The pipes are securely supported on a network of pipe bridges. Numerous special components enable individual adaptation to the local conditions.*

**Pharmaceutical research company Boehringer Ingelheim is responding to increasing waste water contamination with its expanded Central Waste Water Treatment Plant. This investment supports the establishment of the company's headquarters as a "product launch site" for the global group. As part of the conceptual redesign of the waste water purification process, the company also decided to expand its exhaust air collection system. A new, two-line exhaust air treatment system was installed for purification of the increased exhaust air volume.**

### The project at a glance

#### Project

Construction of an exhaust air treatment system with electrically conductive SIMONA® PE-EL pipes and fittings.

#### Client

Boehringer Ingelheim GmbH & Co. KG, Ingelheim

#### General planner

peters engineering ag,  
Ludwigshafen-Edigheim

#### Plastics engineer/Assembly

IKS Kunststoff- und Stahlverarbeitung GmbH, Ingelheim

#### Technical support

- Technisches Büro Ingelheim, peters engineering ag, Ingelheim
- Civil Engineering Project Group, SIMONA AG, Kirn

#### Products used

- SIMONA® PE-EL pressure pipes  
d = 400 to 1.000 mm SDR 33  
d = 110 to 315 mm SDR 17,6
- SIMONA® PE-EL fittings

#### Project duration

2007



Fig. from left to right: A250-ton mobile crane with a maximum radius of 70 metres effortlessly lifts the individual elements. Pre-welded pipe elements help to reduce the overall assembly time.

## SIMONA® PE-EL dissipates electrostatic charges and prevents sparking

### Initial situation

The accumulating production waste water is purified in several stages in a complex process. Complete enclosure of the first treatment stage, including buffering and sludge treatment, captures potential solvent and odour emissions and conveys them to a controlled treatment plant. The exhaust air undergoes chemical/physical and biological purification. A total volume of 30,000 m<sup>3</sup> per hour is treated and released into the environment as purified exhaust air.

### Task

The general planner, peters engineering ag, was looking for a material with the following properties for the construction of the pipeline system:

- electrical conductivity
- usable outdoors thanks to excellent UV resistance
- good temperature resistance up to +80 °C
- high cost efficiency thanks to long service life
- reliable chemical resistance
- high corrosion resistance

### Solution

The technical preliminary notes for this project expressly required pipes and fittings with universally homogeneous conductivity. peters engineering ag and SIMONA AG therefore designed an aboveground pipeline system comprising SIMONA® PE-EL (electrically conductive polyethylene). So-called conductive particulates are added to this polyethylene. This decreases the electrical resistance, allowing dissipation of the occurring electrostatic charges and preventing sparking. The low weight of plastic pipes is a significant advantage during assembly. Plastics processor IKS GmbH, Ingelheim, was able to lay a total of 700 m SIMONA® PE-EL pipes in a very short time.

### SIMONA® PE-EL

#### Properties

- electrically conductive
- high resistance to UV radiation
- Temperature range –20 to +80 °C
- good impact resistance
- excellent weldability
- good chemical resistance
- high abrasion resistance
- high corrosion resistance

#### Product range

- Pipes
- Fittings
- Sheets
- Welding rods

### Further information

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