

speaking for us...

# BorECO™ triumphs

even in the most challenging situation

"REHAU opted for the raw material BorECO BA212E to manufacture the AWADUKT PP SN10 RAUSISTO sewer system because this PP-HM material is manufactured without the use of fillers. High modulus unfilled materials make it possible to achieve the outstanding pipe quality demanded by our customers, and therefore also meet the most stringent requirements laid down in the European standards."

**Roland Hendel, leader of the Wastewater Engineering Team, REHAU.**

Industrial waste-water from large industrial companies is, in most cases, very different to domestic waste-water. Often, temperatures of up to 95°C are reached in waste-water processes with the pH value varying from strongly alkaline, at pH = 12, to strongly acid, at pH = 1. Moreover, periodic cleaning cycles, using disinfectants or the discharge of production residues, lead not only to increased loading of the company's own treatment plant, but also to high and greatly varying demands on the entire waste-water discharge system.

## The solution

In order to meet these high demands Borealis has developed the raw material BorECO BA212E, which is used, amongst others, by the company REHAU.

REHAU supplies an innovative network of polypropylene sewers. The continuous, highly chemical resistant pipe-shaft system is also capable of handling hot industrial waste-waters. It guarantees permanent tightness through the use of a special sealing system. This is regarded as a 'permanent' system as according to the 'Landesgewerbeanstalt Nürnberg'. The high load sewer systems AWADUKT PP SN 10/16 and the shaft system for AWASCHACHT PP DN 1000, manufactured by REHAU from BorECO BA212E, have a service life of at least 100 years.

## The challenge

With the expansion of the Borealis Polymere GmbH production centre in Burghausen, there was a need for newly constructed drainage systems in order to feed the operating waste-waters produced in the manufacture of high quality Borealis polymers at the treatment plant.

During the construction period, from February to June 2006, a total of around 1,290 metres of sewage water and rainwater sewers of the type AWADUKT PP SN10 RAUSISTO, manufactured from BorECO PP, were laid on the Borealis industrial site. This is roughly equivalent to the length of 14 football pitches.



“Our solid wall AWADUKT PP high load sewer system provides safe, disturbance-free waste-water discharge under difficult laying and operating conditions, and has already proved highly satisfactory throughout Europe on a large number of construction sites”, says Guido Kania, Technical Manager of the Underground Engineering Department of REHAU.

Roland Hendel adds, “REHAU opted for the raw material Borealis BorECO BA212E to manufacture the AWADUKT PP SN10 RAUSISTO sewer system because only this PP-HM material is manufactured without the use of fillers. These materials make it possible to achieve the outstanding pipe quality demanded by our customers, and therefore also meet the most stringent requirements laid down in the European standards.”

## The performance

However, every chain is only as strong as its weakest link. As waste-water systems always require a walkable inspection and maintenance shaft it was only natural that instead of using conventional concrete shafts, subject to corrosion in the construction project in Burghausen, the most up to date REHAU AWASCHACHT systems of high quality PP were selected as the material of choice.

This highly chemically resistant and temperature resistant complete PP system was erected on the Borealis industrial site, ensuring that the Borealis waste-water will continue to run off in controlled paths without disturbance for a considerable time to come.



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**Borealis and Borouge** are leading providers of innovative, value creating plastics solutions. With more than 40 years of experience in polyolefins and using our unique Borstar® technology, we focus on the infrastructure, automotive and advanced packaging markets across Europe, the Middle East and Asia. Our production facilities, innovation centres and service centres work with customers in more than 170 countries to provide materials that make an essential contribution to society and sustainable development. We are committed to the principles of Responsible Care® and to leading the way in ‘Shaping the Future with Plastics’™.

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