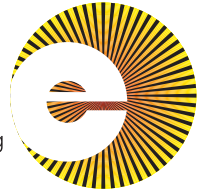


Application Report

Heated hoses - Bitumen

eltherm[®]
innovations in heat tracing



Electrical trace heating - used on heated pressure hoses

Modern electrical trace heating is playing an important role in a variety of industries, as for example in equipment manufacturing. Heated hoses with particular features are required in the production of complex ground reinforcement and heat recyclers.

Essential for lowered viscosity of Bitumen

One application of heating cable is the heating of flexible hoses. Temperatures range from subzero freeze protection up to 250°C and pressures as high as 500 bar. The engineers at eltherm can solve these problems with our high quality products. eltherm has repeatedly proved its competence in the most demanding applications for heated hoses.

Advantages of eltherm heated hoses:

- providing and maintaining product specific properties
- Flexibility
- Frost protection
- Protection against condensation

Applications:

- Bitumen processing
- Hotmelt glue systems
- Filling machine
- PUR foam machine
- Processing of heavy oil
- Dosing and spray-painting machines

The eltherm philosophy: "We are your partner in the development of trace heating systems"

eltherm's product offering for trace heating combines high quality heating cables and accessories with customized systems. eltherm manufactures a comprehensive range of resistance heating cable with PTFE-, FEP- and PFA-insulation. In addition to supplying self-regulating heating cable, monitoring and control instruments, and accessories eltherm also supports its customers during the planning stage of a project. This ensures that the heating system precisely meets the often extreme requirements of the application.

In addition to the above mentioned applications eltherm also develops and successfully markets hoses for analytical purposes in the Automobile- and Chemical industry.

One of the many applications of heated hoses

- Pressure hose



- Heat recycler application



- Application example



Source: eltherm Projekte 2005
<http://www.wirtgen.de>

Heated hoses for Bitumen at the Wirtgen GmbH in Windhagen, Germany

"Roads open up the world" is the motto of the Wirtgen GmbH. The name Wirtgen is worldwide considered synonymous with first class and marketable construction machines for the maintenance and building of roads. In order to comply with the high demands of these machines Wirtgen uses the appropriate components. For the past three years this includes heated pressure hoses from eltherm which can withstand 180°C. Wirtgen uses eltherm hoses on hot recyclers as well as on cold recyclers.

On the cold recyclers the old road surface is skimmed and simultaneously a new surface is applied. The skimmed material is thus recycled.

To achieve a homogeneous surface finish, hot Bitumen is added to the process. The feeder hoses need to be heated to maintain a low viscosity of the material. Due to the varying width of the working surface, Wirtgen GmbH

also needs a flexible hose. eltherm high pressure heated hoses are ideal for this. A number of hoses are used per system. For other machines additional pipes up to 5 m long were required - no problem for eltherm. Electrical heating is the core business of eltherm.

Wirtgen GmbH is confident to gain a clear advantage through eltherm in the performance and increased service intervals of this sensitive process. eltherm can fulfil these expectations, to the benefit of both Wirtgen GmbH and the end-user.

In eltherm's view this is the most favourable situation for a customer -supplier chain.



Cross section of a heated pressure hose



Wirtgen complete system



Heated hose for analysis in totally different applications

Summary:
eltherm is a specialist and marked leader in electrically heated hose systems!

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