It’s the insulation of the pipe that keeps it warm

District Heating with PU insulation made of Elastopor® H
District heating: You’ll never feel cold with pipes insulated with Elastopor H

District heating is always a challenge! But with the pipe insulating material Elastopor H it’s very simple. With Elastopor H you save big money, every minute of the day – for decades.

Lasting reliability

If we need to protect ourselves from the cold, we simply put on another layer. If, however, we want to keep the cold out, we are at a loss or we would be without properly functioning district heating.

Perfect thermal insulation inside the pipe system is key to perfect heating in cold environments. Only the best and most tested materials accomplish this difficult task on a long-term basis. One of these insulation materials is made of polyurethane by the BASF subsidiary Elastogran GmbH. Day in day out for decades to come; insulation ensures pleasantly hot water even for the most remote end-user.

Excellent insulation values

With its unbeaten thermal conductivity value of 0.022 W/(m*K), the full range of PU pipe insulation material Elastopor H has become well-known all over the world. From Greenland to Cape Horn, PU insulation made by BASF has been field tested on all continents: for district heating, district cooling and oil pipelines.

PU Solutions

Around the globe, pipe insulation manufacturers appreciate the reliability and quality associated with BASF and its products.

The solution is simple: only use the best insulation materials available; best of all, use Elastopor H.
### Rigid foam PU/PIR systems for pipe insulation

**Application** | **Foam specification** | **Blowing agent** | **Process**
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Rigid pipes | PU, max. 161°C/30 years EN 253 | Pentane Water R 141b | Disconti (P/P) Conti Spray Lance
Rigid pipes | PIR, max. 180°C/10 years and 175°C/30 years | Pentane | Spray Disconti
Rigid pipes | PU, flame retardent 120°C/30 years (EN 253) | Water | Disconti (P/P)
Flexible pipes | PU | Pentane Water R 141b | Disconti (P/P) Conti
Flexible pipes | PIR, high temperature | Pentane Water | Conti
Offshore oil pipelines | PU, density 80 to 450 kg/m³ | Water | Disconti (P/P) Spray

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### Made in Germany
- Leading supplier of high-temperature systems for pipe systems for over 30 years
- Initiator and patent owner of innovative processes, blowing agents and PU foams
- Fully-equipped technical lab for all kinds of trials
- Testing equipment for many key system properties

### Our product guarantee
30-year guarantee for PU foam with temperatures up to 161°C and 10-year guarantee for PIR foam with temperatures of up to 180°C.

BASF products do not come cheap, but quality always pays off. And one thing is for sure: BASF only supplies top quality materials.

### More benefits of PU products:
- Low reject rates
- Little down time
- Production keeps on running

### Pipe insulation: it’s all you need
- High-tech chemistry and
- Easy processing

### You can put your trust in
- Simply the best
- Reliability-tested on our own pilot plant
- Our products are fully developed and thoroughly tried and tested
- BASF: 100% delivery reliability (and if it’s urgent, we also air-freight within four days)
BASF is one of the world’s leading enterprises in the field of the specialty plastic material polyurethane (PU). Lemförde, Germany is home to the international technology centre of the BASF polyurethane world.
Spray foam is the absolute best for perfect thermal insulation manufacturing using the continuous spray process – with microcellular foam. A further advantage: the enormous flexibility during the production of different and, particularly, large pipe dimensions.

Pipes manufactured by the continuous spray process can be used in all areas of application, such as district cooling and heating, oil pipelines and industrial applications.

The systems of the Elastopor H portfolio are particularly suited for the continuous spray process. Every tonne of Elastopor H is the result of over a decade of our expertise of customised system solutions, tailor made to meet the requirements of our clients. Our maxim: ‘We keep on going until things flow smoothly’. – BASF has been successfully supplying its satisfied customers with material for their continuous spray plants for years.

Go for experience – go for Elastopor!

**The process of spray foaming (Continuous Manufacturing Process)**

1. The fluid pipe is fixed
2. The fluid pipe rotates and is coated with Elastopor H
3. Two coats for sufficient thermal insulation

**»Spiro« pipe applications in Russia**
The discontinuous manufacturing process (PiP)

The traditional PiP-One-Shot processing method is ideal for the reliable manufacture of pipes of varying dimensions. Without great changes to the production process, PiP enables the production of pipes with both very small to very large diameters to be produced. Production using the PiP method is also ideal for thermal insulation – thanks to its microcellular foam and a wide range of blowing agents.

Pipes manufactured by means of the PiP-One-Shot method can be used in all areas of applications, such as district cooling/heating, oil pipelines and industrial applications. The systems of the Elastopor H portfolio can also be used for the discontinuous PiP process. BASF has been supplying Elastopor H for over 30 years, always keeping ahead of developments by expanding its portfolio with innovative developments and new patents. This has put the materials among the product leaders of their kind.

Go for experience – go for Elastopor!

Insulation between fluid and casing pipe

The mixing head fills the cavity with PU foam

PU insulation between pipes: the finished product
Insulation of Contiflex Pipes in the Caterpillar-Process

Flexible pipes are the crème de la crème of pipe systems because they can be bent and adapted to the topography of their surroundings. This way, obstacles can easily be bypassed and targets reached without having to change anything. Not only does this look good – it also considerably reduces pipe laying costs. The jacket foam medium pipes with these advantages contain the materials: copper, steel and PEX (cross-linked polyethylene).

Pipes manufactured and pre-insulated in the caterpillar process stand out due to their highly microcellular foam and low thermal conductivity (0.023 W/(m*K)). BASF has mastered the difficult job of bringing together the two «souls» of PU foam for flexible pipes with Elastopor H.

It is rigid enough to withstand strain yet flexible enough to enable pipes to be bent.

Go for experience – go for Elastopor!

This is how the process works: the foaming machine carries the liquid foam to a foil which is drawn through the pipe-shaped caterpillar together with the medium pipe. Then a polyethylene coat is extruded onto the pipe. Finally, it is cooled and cut to size.

Coiled up Contiflex pipes in Russia
Comptence in Polyurethanes

Elastogran GmbH is one of the leading enterprises in the field of the special plastic material polyurethane (PU). For over 40 years the BASF subsidiary has been operating highly successfully in the market and has developed into a Europe-wide operating market and innovation leader for PU specialties.

The product portfolio comprises high-quality:
- PU base products
- PU systems and
- PU special elastomers

Based on the principle ‘We help our customers to be more successful’ BASF develops individual tailor-made solutions for its customers as well as creating its own product applications. In the European Economic Area Elastogran GmbH operates the PU business of BASF with a network of over a dozen close-to-the-customer operating polyurethane System Houses.