PUR in-situ foam - flexible, fast and reliable
KAEFER - more than good ideas

KAEFER stands for state-of-the-art technology and long-time experience combined with the latest skills of insulation technology. Our about 18,000 employees are there for customers in more than 50 countries around the world. Quality and safety are KAEFER’s highest priorities. With innovation and know-how that comes from global projects we create efficient solutions for your specific requirements and wishes.

The economical and responsible use of resources to maximise value for money drives our business and represents a commitment to our clients.

Technical insulation of pipelines, fittings and tanks must meet the highest quality standards to ensure the long-term operation of industrial facilities.

Polyurethane insulation

Polyurethane (PUR) foam is a mainly closed-cell material for the seamless insulation of objects of varied geometric shapes. Thanks to its outstanding adhesive properties the sheet metal covering provides protection against abrasion and corrosion and acts as a semi-permeable vapour barrier.

Water-propelled polyurethane foam has no ozone depletion potential (ODP = 0). Using this material helps to conserve the earth’s atmosphere and to protecting the environment.
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Procedure

PUR in-situ foam is produced manually on site for pouring or with mobile machines for spraying. It is applied as thermal insulation on industrial and HVAC equipment as well as on cold stores and cooling apparatus.

PUR poured foam is filled into the cavities of watertight sheet metal constructions. Precise sheet metal work guarantees a high-quality insulation.

For the production of PUR sprayed foam two polyurethan components are pumped through heated high-pressure hoses into a foam gun. They combine in the mixing chamber of the gun and produce the pressure necessary to spray the polyurethane foam into the space between the object and the sheet-metal jacket. Depending on humidity and ambient temperature the material cures in 20 to 30 seconds. Follow-up work can therefore be carried out without delay. The on-site systems have hoses up to 90 metres long, which makes them very flexible. Sophisticated technology and professional execution minimise the downtime of your facilities.

Advantages

> High thermal insulation capacity due to low heat conductivity
> High pressure resistance (insulated construction elements can be walked on)
> Low weight with gross density of 45 to 55 kg/m³
> Wide temperature range from -180°C to +100°C
> Building material class B2 under DIN 4102, Part 1
> Outstanding cold insulation due to ≥ 85 % closed-cell structure
> Even distribution on almost every surface
> No thermal bridges
> Great form stability
> Cured polyurethane is non-toxic and odourless
> Recyclable