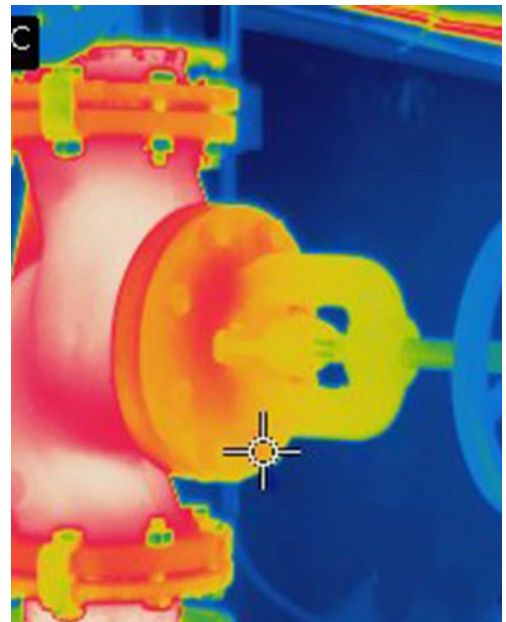


SAVE MONEY, BOOST SAFETY AND SUSTAINABILITY

Energy Assessment Services

Working with you to maximise profitability in industrial piping and contribute to sustainability through saving energy, safeguarding your team and assets and reducing greenhouse gas emissions.

www.armacell.com



 **armacell**[®]
MAKING A DIFFERENCE AROUND THE WORLD

Struggling with increased energy costs and poor insulation?

A key factor in ensuring that plants and facilities operate efficiently is the long-term performance of the **insulation systems applied on pipework**. Energy losses through poorly insulated pipes and equipment can lead to costly CO₂ emissions and high energy consumption. **Energy Assessments** are an effective way to assess the energy losses across your facility and to determine the right course of action for remediation.

Up to 10 percent of industrial pipes are known to have poor or damaged insulation¹. Upgrading these insulation systems to a more energy efficient category would reduce energy losses at these locations by about 80 percent¹.

In addition to improved **energy efficiency**, further advantages of professionally insulated industrial pipework include:

- improvement in the overall **productivity** (yield) of the facility or process
- improvement in the **process stability**, i.e. avoiding unacceptable temperature changes during fluid flow
- **protection** of personnel and asset
- **reduction in greenhouse gas emissions**

¹EiIF Study 2021, The insulation contribution to decarbonise industry.

ENERGY ASSESSMENT SERVICES

Armacell's technical team is ready to conduct onsite energy assessments of existing insulation systems installed on industrial pipework and equipment. Through detailed analysis of the plant/ process energy cycle, we provide advice and recommend solutions to help you reduce energy costs and energy losses, address process instabilities, with an attractive return on investment.

BENEFITS

Fair and unbiased approach // Energy Assessments are conducted based on the standardised rules defined in TIPCHECK, EN 16247 or ISO 50002 energy audit guidelines

Non-intrusive // Energy Assessments can be performed during normal operation of the plant and through online consultation

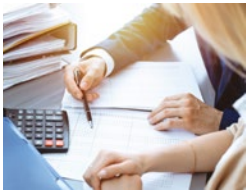
Immediate solution // Energy Assessments are highly effective at quickly identifying pipework with deficient insulation and in recommending solutions with short-term payback, typically within 3 years

CONSULT WITH US TODAY

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ENERGY ASSESSMENT METHODOLOGY



Initial
assessment



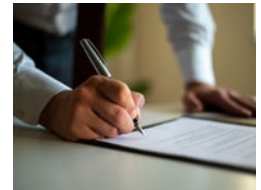
Data
acquisition



Measurement



Calculation and
analysis



Reporting and
conclusion

EXAMPLE PROJECT REFERENCE

// HIGH TEMPERATURE PIPEWORK

// **When: 2021**

// **Where: Petrochemical plant in Eastern Europe.**

// **Application: Pipework: NPS 3 - 10 inch, operating temperatures 230°C and 440°C (steam). Total pipe length +1500 m.**

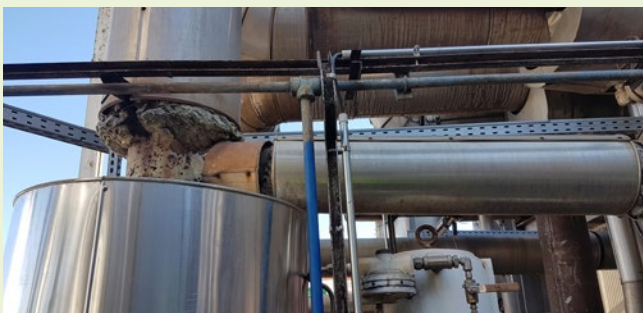
// **Methodology: Surface temperature, thickness, ambient condition etc. measured using specialist equipment. Recommendations for rectification given based upon further evaluation of the plant's operating parameters (e.g. heat generation efficiency, cost of fuel, annual operation period, expected service life and the cost of replacement).**

// **Results:**

- More than 80 percent of the pipework had insulation systems in poor condition.
- Replacing the existing insulation with a more energy efficient system was identified to deliver payback within 3 years.
- This would yield financial savings of €170k annually. This equates to €133 annually for each linear metre of the pipe.

**€170K
saving
annually**

**< 3 years
payback**



All data and technical information are based on results achieved under the specific conditions defined according to the testing standards referenced. Despite taking every precaution to ensure that said data and technical information are up to date, Armacell does not make any representation or warranty, express or implied, as to the accuracy, content or completeness of said data and technical information. Armacell also does not assume any liability towards any person resulting from the use of said data or technical information. Armacell reserves the right to revoke, modify or amend this document at any moment. It is the customer's responsibility to verify if the product is suitable for the intended application. The responsibility for professional and correct installation and compliance with relevant building regulations lies with the customer. This document does not constitute nor is part of a legal offer to sell or to contract.

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ABOUT ARMACELL

As the inventor of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency, making a difference around the world every day. With more than 3,300 employees and 25 production plants in 19 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for acoustic and lightweight applications, recycled PET products, next-generation aerogel technology and passive fire protection systems.

For more information, please visit:
www.armacell.com

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