

PITTSBURGH CORNING ENERGY SURVEYS

FOAMGLAS[®]

Pittsburgh Corning



REVEALING INVISIBLE PROBLEMS

Insulation failures take time to show

Insulation failures can develop concealed by cladding or jacketing and can not only have a catastrophic effect on pipework integrity, but will also lead to increased energy consumption and process-control issues.

A Pittsburgh Corning Energy Survey can help quickly identify insulation deterioration, inefficiencies and process system failures before they become serious problems.

A Pittsburgh Corning Energy Analysis can quantify the deterioration and recommend effective solutions for both existing facilities and those in the design stage.

We get to know your installations

The effectiveness of your survey relies on our experienced engineer's knowledge of your facility. We will take every step possible to become familiar with your site and processes to identify every area that would benefit from the survey.

Making connections

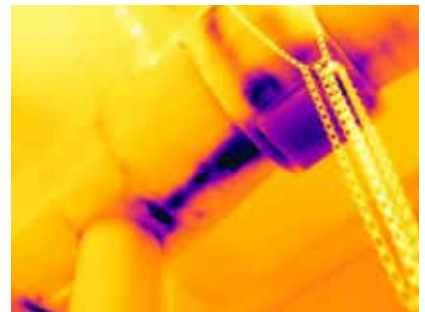
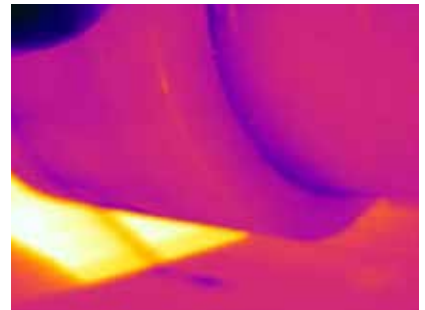
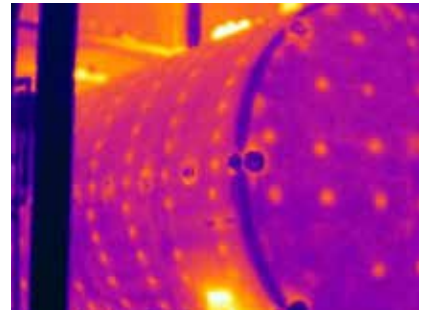
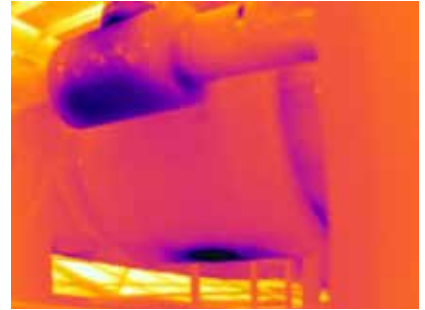
More often than not, facility issues will not come as a surprise to everyone. Our engineers will talk with your staff to understand your priorities, known issues, and what you want from your Energy Survey.

Review of design drawings

When available, design drawings and blue prints enable our engineers to prepare a time-efficient survey and establish base-line data.

Review of current insulation specifications

Knowing what kind of insulation you're currently using and its properties (thickness, purpose), along with how and when it was installed, will help us to recommend effective improvements.



HEAT FLOW MEASUREMENTS

INFRARED IMAGING

Energy Survey

Some problems are obvious to the naked eye. Others can only be detected with specialized technology. By using a combination of both, we'll help you see your facility in a new way.

Observation: Sometimes there is no better tool than our well over seventy years of insulation experience in detecting facility issues — faulty insulation jackets or deteriorated vapor retarders — issues that aren't always obvious. And when the presence of a problem is clear, an Energy Survey can reveal the exact extent of the damage, as well as the recommended path of correction.

Infrared imaging: This is an essential tool that allows for detailed surface temperature monitoring throughout your facility. These images form the foundation for your Energy Survey to quickly identify areas of concern.

Heat flow measurements: Specific measurements must be performed on pipes, vessels, tanks, and other insulated equipment in order to obtain quantifiable data to compare with the observations and infrared imaging. Measurements are made with heat-flow sensors, and provide heat-gain or heat-loss readings at specific locations, data which cannot be adequately measured using infrared imaging alone. This real-life data is then compared with theoretical data from an Energy Analysis to clearly demonstrate whether the insulation system is performing well or needs to be improved.

Energy Analysis

It would be of little value to perform an energy survey without being able to compare the findings with how the insulation performed when installed and how it could perform if upgraded.

Our experienced engineers will prepare energy performance analyses using our unique and specially developed in-house calculation programs complying with ASTM, EN, VDI or ISO standards.

Energy Analysis reports can be prepared for many different scenarios including:

- Heat gain / heat loss above or below ground
- Condensation prevention
- Personnel protection (surface temperature)

These reports will enable you to be confident about the quantity of insulation required to maximize your facility's process system performance, energy efficiency and safety. They will give you the benchmark of how your system should, or could, be performing.

The Energy Survey Report

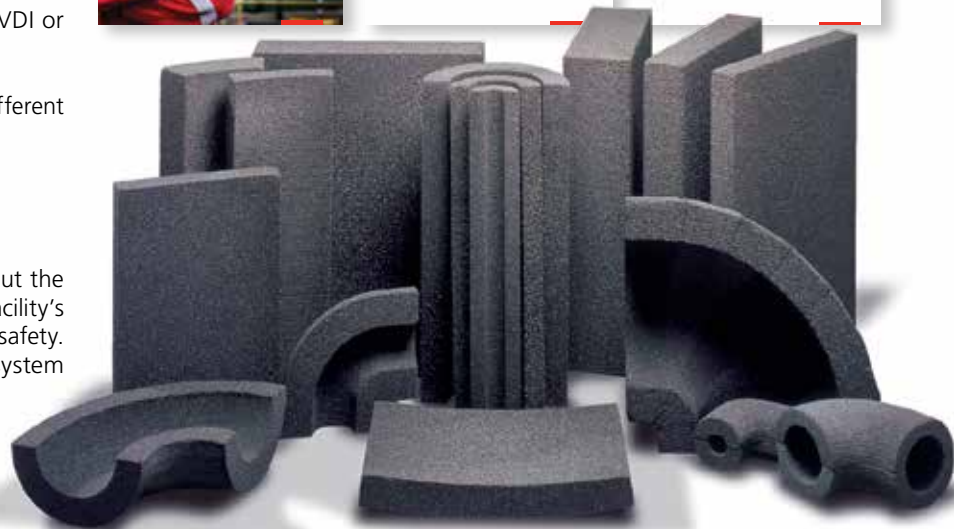
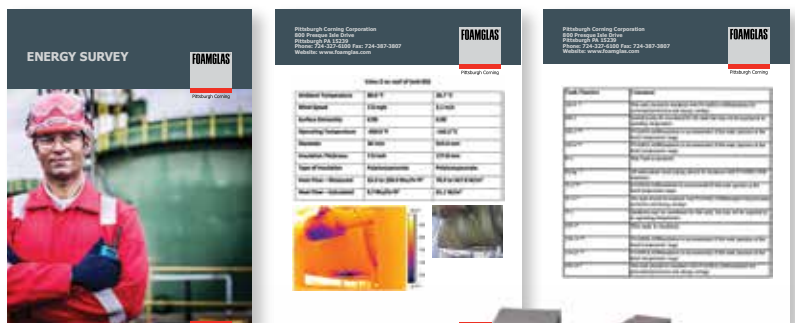
The Energy Survey Report brings together the infrared imaging, heat-flow measurements, and visual observations from the Energy Survey and compares them with the results of the Energy Analysis to provide you with a health report on your process pipework and equipment insulation. We will clearly indicate areas where action can be taken to reduce energy consumption and to protect insulation integrity and also identify areas which may be at higher risk of corrosion under insulation. We will help you to produce a prioritized maintenance plan, targeting the areas which are in the worst condition and helping you identify the areas which have less immediate risk.

Included in this report are

- Infrared images
- Heat flow measurement results
- Energy Analysis calculations
- A summary of observations
- Detailed advice on how to improve the condition and efficiency of your facility.

You will receive a detailed set of recommendations to enable you to make the right insulation choices.

The Energy Survey Report will enable you to prioritize the efficient, safe, and economic maintenance and operation of your facility.



The logo for FOAMGLAS, featuring the word "FOAMGLAS" in a bold, black, sans-serif font with a registered trademark symbol (®) to the upper right. The text is set against a white rectangular background that is part of a larger graphic element consisting of a white square above a red horizontal bar.

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