WASTE WATER

Relining inside buildings

Mainly experience from Sweden but there are many similarities between our countries.

Erik Lindhagen , RISE Sustainable Polymer Technology

WHAT IS RELINING?

Short video that I found on youtube,
from one system supplier.


HOUSELINER®
SYSTEM

Relining inside buildings

- Has existed at least 50 years.
- About 35 years ago a lot of things started happening and the first type approvals were issued.
- Has been heavily driven by innovative small entrepreneurs. Bottom up.
- The business has seen a lot of change, improvement and innovation. New chemistries, better methods, better tools, smaller cameras, robots.
- Many materials/products that we see today are inherently good. But craftsmanship and combinations of materials or methods can be problematic.
- Since the whole idea is to be able to renovate existing pipelines more or less all installations are hidden. This is a significant challenge.
- Thermosets are always a health issue. Care needs to be taken.
- Hard to find accurate statistics, but we estimate that between 500 and 1000 km of pipe are relined every year inside buildings, in Sweden.

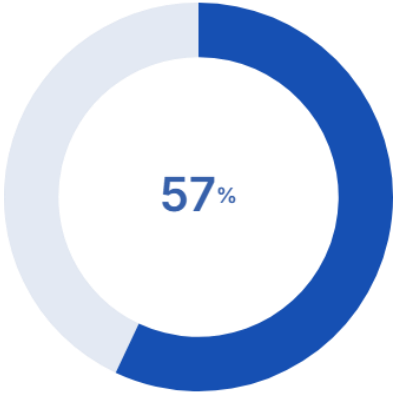
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WHERE ARE WE TODAY?

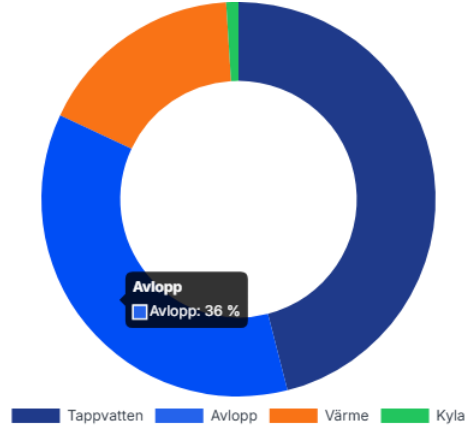
• RELINING IS HERE TO STAY!

- WE THINK THERE ARE MORE PROBLEMS WITH NOT MAINTAINING PIPES THAN WITH RELINING.

- WE COMPARED THE DATA IN VATTENSKADEUNDERSÖKNINGEN 2016 AND VATTENSKADERAPPORTEN 2025 AND FOUND THAT DAMAGED WASTE WATER PIPES SEEMS TO BE A CONSTANT OR GROWING PROBLEM (UP FROM 18% TO 20%)



Damages due to pipes



Pipe damages

There is a need to help relining companies compete with quality

- Not a new problem but there seems to be a shift from increases in quality to focus on budget, over the last years.
- Many residential houses have non professional owners. How do they know what to choose?
- Quality is not only materials and craftsmanship but also knowhow and documentation. This becomes more important over time. For example in Sweden we see a problem with continuity between tenant-owned housing association boards.

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QUALITY INITIATIVES/CERTIFICATES

Brif 3Q
RISE
Sintef
VTT/eurofins
TI

No insight into non certified companies.

WE SEE FOUR VERY DIFFERENT CAUSES FOR PROBLEMS

THEY NEED DIFFERENT HANDLING!

1. INTENTIONAL DISHONESTY.
2. INCOMPETENCE, POOR CRAFTSMANSHIP.
3. POOR PRODUCTS OR SYSTEMS.
4. POOR DOCUMENTATION.

"By the way! The WC in apartment 1103 could not be relined due to…"

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In order to further improve quality we need your help!

We are involved in updating certification rules and international standards together with the industry.

We need to make too many guesses about the causes for poor quality.

- We need reliable statistics.
- How much is related to relining? How much is related to poor maintenance?
- What are the failure rates for different solutions? What are the causes?
- Damage investigations, research and publications?

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Thank you!

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