

The title of the report, "Network Innovation Allowance Annual Summary 2017/2018", displayed in white and green text against a dark blue background.

Network Innovation Allowance
Annual Summary
2017/2018

The text "Gas Transmission" in white, bold font, positioned in the bottom left corner of the cover.

Gas Transmission



Simplifying epoxy grout

Project Engineer Gordon Platts explains how an innovative epoxy grout is set to simplify high-temperature pipe repairs.

What problem is this project aiming to solve?

We use epoxy grout, an extremely durable material, for pipe repairs such as corrosion damage, cracked welds and laminations. However, it does have limitations. Winter grade has a maximum working temperature of 50°C and summer grade has a maximum working temperature of 60°C which can delay repairs. In windy or extreme conditions we need to mix the three elements – resin, powder and hardener – on site and this can be difficult.

What was your solution?

We assessed and proved the effectiveness of a new grade of epoxy grout. We explored its short-term strength and adhesiveness as well as its long-term performance through exposing it to extreme temperatures. Tests proved that it can keep its strength up to 70°C for the winter grout and 100°C for the summer grout. Another benefit is that

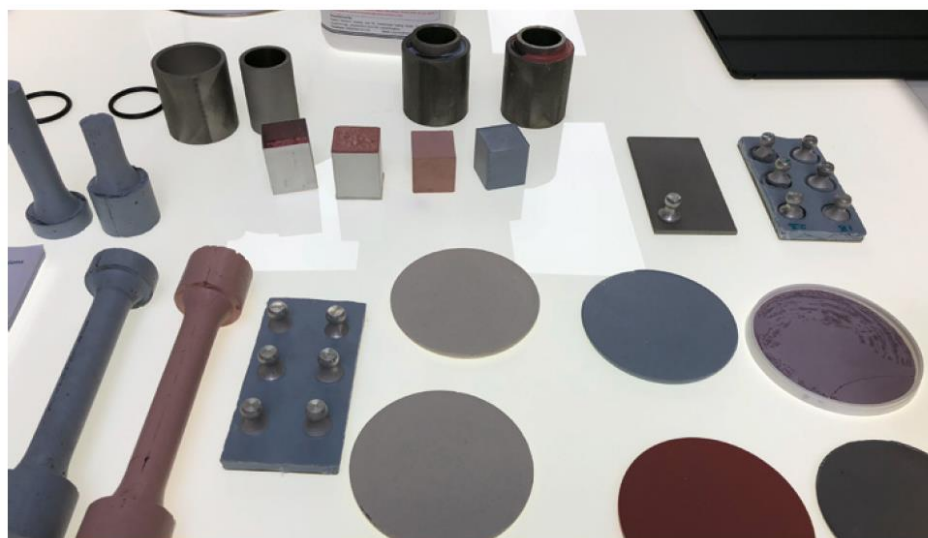
it comes ready mixed, so technicians only add separate bottles of hardener.

What are the main benefits of this new grout?

Because it stays strong at higher temperatures, we can use it on high-pressure pipelines, where the working temperature is more than 60°C i.e. oil lines. Previously, more complex and expensive repairs would have been needed. Currently we have a single source of the existing grout, so this will reduce potential supply risks by using a second grout supplier.

Where are you now – and what's next?

The new solution has been tested in different installation conditions and has proven to be suitable for pipeline repairs. We're hoping to have it on the network by midsummer, where we'll use it to support our existing grout, particularly on jobs where pipes run at higher temperatures.



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