

SUPERFAST **STEEL STICK** Case Study

400mm GRP Pipeline Surface Damage Repair

Areas of external surface damage on a 400mm GRP line at an oil refinery are repaired to restore the integrity of the pipe and help prevent future leaks



The external surface of the GRP pipe was suffering from heavy scoring which had the potential to lead to future breaches of the line

Defect

Construction work led to the excavation of an underground section of 400mm GRP pipe. The surface of the line was found to be damaged, with two areas suffering from heavy scoring.

Whilst the pipe remained accessible, the refinery decided to strengthen the line and restore its integrity by repairing the weakened areas.



Superfast Steel was pushed onto the pipe to fill the imperfections and rebuild the thickness of the outer line where it had weakened

This would lessen the chance of future leaks, helping the refinery avoid having to excavate the line for costly leak repair or pipe replacement.

Solution

Multiple **Superfast Steel Epoxy Putty Sticks** were used for the application. Superfast Steel was chosen because of its fast work time and the relatively small areas requiring repair.



The putty cured to form a material hard as steel over the weakened areas

Chunks of putty were cut from the sticks and kneaded by hand. Once the putty had turned a uniform colour to indicate successful mixing, it was pushed down onto the pipe and smoothed over the scored areas.

Within 10 minutes, the putty began to harden. When cured, it permanently embedded into imperfections in the line, creating a new outer surface as hard as steel which increased the pipe wall thickness of the weakened areas.

Result

The entire repair took under two hours to complete. Once the construction work was completed, the line was again buried.



The completed repair with all damaged areas filled in. After completion, the pipe was buried again

Several years later and the pipe had not been breached. Superfast Steel had done its job.