

Press Release

2015/12/04

TÜV Rheinland and Lloyd's Register certify Loctite Composite Repair System for steel pipes and pipelines

Certified safety for steel pipeline repairs

The operational safety of the newly developed Loctite Composite Repair System, which is used to repair and maintain steel pipelines, has now also been certified in accordance with ISO 24817 and the US standard ASME PCC-2 by the global inspection agencies TÜV Rheinland and Lloyd's Register. That makes the Loctite Composite Repair System from Henkel the only such system on the market to carry certifications from three leading inspection bodies at once: DNV GL, Lloyd's Register and TÜV Rheinland.

Steel pipelines are extremely capital intensive – no matter whether they are used to transport gas, water, crude oil, wastewater or any other medium. For operators of such networks it is essential to avoid any interruptions and keep stoppages to a minimum. A repair system that offers a fast and economical solution, allowing operations to continue uninterrupted while assuring top quality and safety, is needed in the market to ensure profitability.

Tested and proven technology

Previously certified by DNV GL in accordance with ISO TS 24817 and now tested by TÜV Rheinland (ISO 24817, Pipeline Regulation, High Pressure Gas Pipeline Ordinance, Industrial Safety Regulation, Pressure Equipment Directive) and Lloyd's Register (ASME PCC-2 and ISO 24817), the repair system can be used for all repair classes and all defect types, whether through wall or non-through wall. In complex test procedures spanning a period of three years, performance of the system was tested under the supervision of the certification bodies for scenarios covering various defect types, pipeline components, materials, load cases and application methods, and its use was approved for industrial, marine and offshore applications.

The Loctite Composite Repair System comprises materials for surface preparation, reinforcement, sealing, and a topcoat. The heart of the repair system is a composite material made of a glass-carbon fiber tape and epoxy resin that was purpose-



developed for these applications. In steel pipelines the composite repair system reinforces damaged pipe sections and seals them while also protecting them against recurring corrosion. In addition to certified safety, the system offers real economic benefits, since it eliminates the need to replace piping components. Corroded pipes can be repaired in situ, without any interruption in operations. This bridges the time until the next planned overhaul, but can also extend the overall lifetime of the steel pipeline by up to 20 years.

Certified calculation software and applicator training

To ensure that the repair system will be properly applied in practice and will comply with the certification standards of the inspection agencies, users must undergo training by Henkel. A tailor-made training program has already been developed. It consists of two successive training blocks. In addition to having their staff trained, applicators can also have their full operations validated by Henkel to become a “Henkel Certified Applicator Center”.

Since no single repair case resembles another, Henkel also offers project-specific repair calculation and costing services. Parameters that have to be considered include the forces acting on the pipeline, the temperature and the extent of damage. The software tool used to perform these calculations has also been certified.

LOCTITE is a registered trademark of Henkel and/or its affiliates in Germany and elsewhere.

Henkel operates worldwide with leading brands and technologies in three business units: Laundry & Home Care, Beauty Care and Adhesive Technologies. Founded in 1876, Henkel holds globally leading market positions, both in the consumer and in the industrial businesses, with well-known brands such as Persil, Schwarzkopf and Loctite. Henkel employs about 50,000 people and reported sales of 16.4 billion euros and adjusted operating profit of 2.6 billion euros in fiscal 2014. Henkel’s preferred shares are listed in the German stock index DAX.

Photo material is available at <http://www.henkel.com/press>

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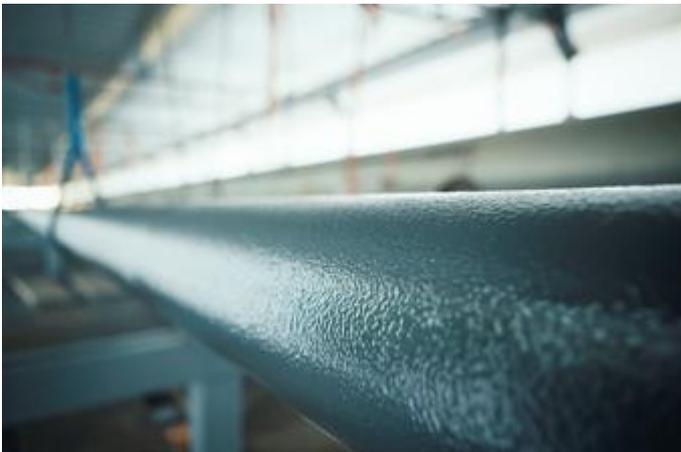
The following material is available:



LOCTITE Composite Repair System



A steel pipe after coating with LOCTITE PC 7255 sprayable ceramic topcoat as the protective finishing layer



A steel pipe after coating with LOCTITE PC 7255 sprayable ceramic topcoat as the protective finishing layer



Applying LOCTITE PC 7210 to the glass-carbon fiber tape



The repair system reinforces and seals steel pipes that have been designed to withstand high pressures, elevated temperatures and be highly resistant to chemicals.



Protective topcoat with LOCTITE PC 7255