

Certificate

Composite Repair System – Pipe Repair Loctite SF 7515 / EA 3478 / PC 7210 / PC 5085 / PC 5090

certificate no. cert-TIS-641-268197816-Henkel-Loctite-2025-11-e1

name and address
of the applicant:

Henkel AG & Co. KGaA
Henkelstraße 67 in 40589 Düsseldorf, Germany

scope:

This is to certify that the repair system named above - incl. repair calculation tool version 2.1.3b - meets the technical requirements as a **permanent method of repair** laid down in the scope listed below. The application of the method is carried out in the responsibility of contractors trained by the applicant. The qualification process itself is not part of the certification process. The contractors are responsible for compliance with the present procedures and work instructions.

The repair system named above is used for the repair of defects (**type A / B**) in pipes and piping components within the following **application limits**:

- metal loss up to 80% WT with pipe diameters from 63 mm and arc radii from 1D using the underlying calculation tool according to ISO 24817 including defects (pinholes, corrosion) in joint welds
- temperature range between 80 °C (Type A) or 70 °C (Type B) and -50 °C
- dents and sloping laminations after prior consultation with an expert or master trainer
- repair of crack-like and sharp-edged type A defects subject to high dynamic internal pressure load (> 10,000 full load changes) only after prior consultation with an expert or master trainer
- live repair of type A defects subject to strongly elevated working pressures (> 40% p_{design}) only after prior consultation with an expert or master trainer
- repair of Type B defects subject to high dynamic internal pressure loading (> 5000 full load cycles) only after consultation with an expert or master trainer
- repair of flaws with concave surface contours (eg necked Tees) only after prior consultation with an expert or master trainer

The assessment of the above named repair system has been made in consideration of the requirements of the following standards (test specifications):

- EN ISO 24817:2018 (petroleum, petrochemical and natural gas industries - composite repairs for pipework – qualification and design, installation, testing and inspection)
- BetrSichV: 2015 (ordinance on industrial safety / regulation on safety and health in the use of work equipment) in connection with the Pressure Equipment Directive 2014/68/EU
- VdTÜV-guideline R1070:2009 (pipelines - directive on the qualification of rehabilitation methods for pipelines) in connection with the TRFL: 2017 (technical rules for long-distance pipelines) and RohrFLtgV: 2017 (regulation for long-distance pipelines)
- GasHDrLtgV:2011/2013 (regulation for high pressure gas pipelines) in connection with DVGW code of practice GW 301: 2021 (companies for the construction, repair and tie-in of pipelines - requirements and approval procedure)


At the repair of plants requiring supervision within the scope of the BetrSichV an acceptance inspection by the competent local expert is required according to § 15 before recommissioning. At the repair within the scope of RohrFLtgV and GasHDrLtgV the executing specialist company requires an additional qualification in accordance with DVGW code of practice GW 301: 2021.

validity:

until November 30, 2025 provided that no changes occur in the meantime.

Cologne, Feb. 22, 2021
TÜV Rheinland
Industrie Service GmbH
Am Grauen Stein
D-51105 Köln

The authorised expert


Dipl.-Ing. Wolfgang Schmidt
Tel.: +49(0)221-806-2922

