

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Composite Repair Systems**

with type designation(s)
Loctite 7210 / Loctite 5085

Issued to

Henkel AG & Co. KGaA
Garching, Germany

is found to comply with
ISO 24817:2018 "Petroleum, petrochemical and natural gas industries – Composite repairs for pipework – Qualification and design, installation, testing and inspection"

Application :

Repair of carbon (manganese) and stainless steel pipes with through wall and non-through wall defects by the means of full encompassing and patch repairs

Issued at **Hamburg** on **2018-11-16**

This Certificate is valid until **2023-11-15**.

DNV GL local station: **Hamburg Pressure & Underwater Technology**

for **DNV GL**

Approval Engineer: **Henrik Derlien**

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Harald Pauli
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Job Id: **262.1-029863-1**
Certificate No: **TAK00001CD**

Product description

The composite repair system consists of

- Resin Loctite PC 7210 A / Loctite PC 7210 B
- Textile Loctite PC 5085
- Filler Loctite EA 3478 or Superior Metal
- Optional post-wrapping with Loctite PC 5090

Application/Limitation

The composite repair system can be applied to straight pipes, bends, reductions and T-pieces made either from carbon (manganese) or stainless steel for the repair of through wall and non-through wall defects by means of full encompassing or patch repairs. Mechanical surface preparation of the component under repair may either be conducted by shot-blasting or a brushing tool. The maximum design temperature of the repair reads 80°C, for details reference is made to ISO24817:2018.

Type Approval documentation

Please refer to the approval letter 262.1-029863-2.