








3X ENGINEERING

HIGH-PERFORMANCE COMPOSITE REPAIR SOLUTION FOR PIPE REINFORCEMENT

-  Any pipe diameters
-  Any pipe geometries
-  High pressure
-  -50°C to +150°C
-  Oil
-  Gas
-  Water

REINFORCEKIT® 4D

ISO 24.817
and
ASME PCC-2
compliant



OIL & GAS
ONSHORE / OFFSHORE



INNOVATIVE REPAIR SOLUTIONS FOR YOUR INSTALLATIONS

REINFORCEKIT® 4D (R4D) is a wet lay-up repair system, wrapped around the pipe to reinforce the damaged area, restore original pipe integrity and prevent further deterioration.


This composite technology, made of Kevlar® tape and bi-component epoxy resin, is a great alternative to metal clamp, welded sleeve and pipe replacement.

3X ENGINEERING (3X) developed its own software to design the repair and define the material requirements according to ISO 24.817 and ASME PCC-2 standards.

REINFORCEKIT® 4D RANGE



REINFORCEKIT® 4D MAIN FEATURES & BENEFITS

- Emergency Pipeline Repair System (EPRS)
- Online repair (no loss of production)
- Long-term performance (up to 20-year lifetime)
- Designed according to the standards (ISO 24.817 and ASME PCC-2 compliant)
- Versatile product with a large range of applications (O&G assets, plants, refineries, platforms, FPSO ...)
- Suitable for transmission and distribution pipelines, piping, pipework ...
- Suitable for any pipe geometries (straight, elbow, tee) including irregularities (welds ...), without pipe size limitation
- User-friendly (no hot work, non conductive repair, light product)
- Premium installation by trained and certified applicators only
- Traceability using smart tag 

REINFORCEKIT® 4D IMPLEMENTATION

<p>1</p>  <p>Designed as per ISO 24.817 & ASME PCC-2</p>	<p>2</p>  <p>Surface preparation Sa2½ / St3 and roughness Rz > 60µm</p>	<p>3</p>  <p>3X filler application</p>	<p>4</p>  <p>3X bi-component epoxy resin preparation</p>	<p>5</p>  <p>R4D wrapping</p>	<p>6</p>  <p>Coating protection & smart traceability tag</p>
---	--	--	---	---	--

DOC MKT 019 - B - ENG - IC - 09.2021