5 ENGINEERING

REINFORCEKIT® PATCH



LONG-TERM COMPOSITE REPAIR SOLUTION FOR TANK AND PRESSURE VESSEL REINFORCEMENT



- Any designs
- Any diameters
- Any defect sizes
- Storage and pressure
- -50°C to +150°C
- **F** -58°F to +302°F
- Oil Gas Water

This composite technology, made of several Kevlar® patches and bi-component epoxy resin, is a great alternative to welded metal plate and equipment replacement.

3X ENGINEERING (3X) developed its own software to design the repair and define the material requirements according to ISO 24.817, ASME PCC-2 and API 653 standards.

REINFORCEKIT® PATCH RANGE









ONSHORE / OFFSHORE TOPSIDE



EXTERNAL CORROSION



INTERNAL CORROSION



THROUGH WALL DEFECT, LEAK. HOLE



MECHANICAL DAMAGE, DENT. CRACK ...

REINFORCEKIT® PATCH MAIN FEATURES & BENEFITS

- > Tailor-made for each repair
- Online repair (no loss of production)
- Long-term performance (up to 20-year lifetime)
- Designed according to the standards (ISO 24.817, ASME PCC-2 and API 653 compliant)
- Versatile product with a large range of applications (storage and GRP tanks, pressure vessels, separators, columns ...)
- Suitable for any tank (wall, roof and bottom plate) and pressure vessel designs and diameters
- > No limitation in pressure and defect size
- User-friendly (no hot work, non conductive repair, light product)
- Installation by trained and certified applicators only
- > Traceability using smart tag

REINFORCEKIT® PATCH IMPLEMENTATION



Designed as per ISO 24.817 and ASME PCC-2



Surface preparation Sa2½ / St3 & roughness $Rz > 60 \mu m (2.4 mil)$



3X filler application



3X bi-component epoxy resin preparation



Kevlar® patching with 3X resin application



Final protection and traceability tag





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