

3X ENGINEERING

REINFORCEKIT® STRUCTURE

FINITE
ELEMENT
ANALYSIS
(F.E.A)
DESIGN

COMPOSITE SOLUTION FOR STRUCTURAL REPAIR



STRUCTURAL

HL [] [] [] [] [] Any structure designs



Any structure materials



Any structure sizes



Any weather conditions



Any environments



Any industries

REINFORCEKit® STRUCTURE is a tailor-made composite repair system to renovate any kind of corroded structure and restore original integrity, making it even stronger than the original one.

Depending on the structure design to be reinforced, the solution will be wrapping or patching. This technology is a combination of fiber tape (Kevlar®, carbon or glass fiber) and bi-component epoxy resin. Sometimes metal inserts can be added to specific

designs to distribute the efforts. This product is resistant to any climatic conditions and temperature variations. A protective version, made of a combination of several high-performance coatings, is also available to prevent corrosion issues.

REINFORCEKit® STRUCTURE APPLICATIONS

REINFORCEMENT or PROTECTION

OIL AND GAS



(conductor supported platforms, caissons, splash zones, pressure vessels, tanks ...)

CONSTRUCTION



(bridges, shed structures, beams, columns, roof, walls, decks, sheet piles, jetty piles ...)

ENERGY



(windfarms, electrical pylons ...)

TRANSPORTATION



(catenary supports, beams, poles ...)

Suitable for many others industries ...



FOCUS ON RAILWAY SECTOR

Specific solutions were co-developed and are commonly used by the French National Railway Company to reinforce their catenary supports. Since 2010, thousands of structures have been protected and repaired successfully thanks to DKIT® and REINFORCEKit® BEAM patented products.

REINFORCEKit® STRUCTURE MAIN FEATURES & BENEFITS

- › Repair solution for corroded structures
- › Suitable for steel, concrete, composite and many others material structures
- › Protection against impact, UV and climatic aggression
- › Versatile solution adaptable to any industries/sectors, any structure designs (even complex geometries), any environments (onshore, offshore including underwater) and any structure sizes (no limitation)
- › Live repair, no impact on production or traffic
- › Tailor-made for your structure design using Finite Element Analysis
- › Compliant with international standards:
 - ASME PCC-2, ISO 24817, ABS rules, DNV guidances ... (steel)
 - ACI 440, AFGC guidelines ... (concrete)
- › Long-term repair (20 years minimum)
- › Cost-effective (structure replacement avoided)
- › Installation by trained and certified applicators

REINFORCEKit® STRUCTURE - CASE STUDIES

(non-exhaustive list)



SUBSEA CAISSON REPAIR



CATENARY SUPPORT REPAIR



DECK REPAIR



WALL TANK REPAIR



HANDRAIL REPAIR



JETTY PILE REPAIR



WIND TURBINE REPAIR



SHEET PILE REPAIR



CONDUCTOR SUPPORTED PLATFORM REPAIR



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