TITAN WRAP

WATER-ACTIVATED COMPOSITE PIPE REPAIR BANDAGE

TITAN WRAP is presented as a water-activated polyurethane resin-impregnated composite bandage for wrapping suitable prepared substrates. The bandage cures to form a rigid composite layer. The repair design, number of layers and suitability for pressure service must be assessed for the actual application.

WATER ACTIVATED	COMPOSITE WRAP	FIELD APPLICATION
Moisture-reactive resin system	Resin-impregnated reinforcement fabric	Designed for wrapping accessible components

PRODUCT BENEFITS

Water-activated application — Moisture activation initiates curing of the impregnated resin.

Composite reinforcement — The resin and fabric form a hardened composite wrap after curing.

Adaptable bandage format — Can be wrapped around compatible pipework and shaped substrates.

Site repair potential — May support maintenance and reinforcement programmes subject to engineering approval.

TYPICAL APPLICATION AREAS

Pipe risers and pipework; concrete columns and beams; concrete and timber piles; and selected submerged repair scenarios. These examples come from historic installation material and do not establish TITAN WRAP approval for any specific duty.

APPLICATION OVERVIEW

01 ASSESS Confirm pipe condition, design pressure, operating temperature and repair requirements.
02 DEPRESSURISE Remove all pressure before preparation or installation; isolate the system safely.
03 PREPARE Remove oil, grease and contamination; abrade and clean the surface as required by the approved procedure.
04 ACTIVATE & WRAP Activate with water and apply the specified width, overlap and number of wraps.
05 CURE & VERIFY Allow adequate curing, inspect the wrap and obtain approval before returning the system to service.

TECHNICAL STATUS & SAFETY

The accompanying historic guides contain application figures for 5 bar and 10 bar repairs; these are reproduced on page 2 as reference data only. Do not use them as confirmed TITAN WRAP performance limits without product-specific validation. Refer to the current TITAN WRAP safety data sheet, use appropriate protective equipment and undertake a task-specific risk assessment.

TECHNICAL REVIEW REQUIRED | Pressure ratings, temperature resistance, cure time, application schedule, and approvals must be confirmed against current TITAN WRAP documentation before issue or use for repair design.

APPLICATION REFERENCE DATA

HISTORIC LOW- AND MEDIUM-PRESSURE APPLICATION GUIDES | NOT YET VERIFIED FOR TITAN WRAP

The supplied application guides describe a water-activated pipe repair tape with a 3-minute usable life and a 30-minute full cure at 20°C, plus a stated operating temperature of 120°C. These figures require confirmation for the current TITAN WRAP formulation.

LOW PRESSURE	5 bar / 72.5 psi	15 wraps	7.5 mm minimum cured thickness
MEDIUM PRESSURE	10 bar / 145 psi	20 wraps	12.5 mm minimum cured thickness

REFERENCE BANDAGE SCHEDULE BY PIPE DIAMETER

Pipe OD (mm)	5 bar reference	10 bar reference
12.5	50 mm × 1.8 m	50 mm × 1.8 m
25	50 mm × 1.8 m	50 mm × 1.8 m
50	50 mm × 3.6 m	2 × 50 mm × 3.6 m
75	75 mm × 3.6 m	75 mm × 3.6 m
100	100 mm × 3.6 m	2 × 100 mm × 3.6 m
125	2 × 100 mm × 3.6 m	3 × 100 mm × 3.6 m
150	2 × 100 mm × 3.6 m	3 × 100 mm × 3.6 m
200	2 × 100 mm × 3.6 m	4 × 100 mm × 3.6 m
250	2 × 100 mm × 3.6 m	6 × 100 mm × 3.6 m
300	2 × 100 mm × 9.1 m	3 × 100 mm × 9.1 m
350	3 × 100 mm × 9.1 m	3 × 100 mm × 9.1 m
400	3 × 100 mm × 9.1 m	3 × 100 mm × 9.1 m
450	3 × 100 mm × 9.1 m	3 × 100 mm × 9.1 m

SURFACE PREPARATION DIFFERENCES

5 bar reference: Hand preparation with wire brush, coarse abrasive paper or metal file. 10 bar reference: Mechanical preparation using a handheld grinder with a coarse pad. Both procedures require removal of oil and grease, followed by cleaning and degreasing. Use only cleaners approved for the substrate and current product instructions.

MANDATORY INSTALLATION CAUTION

All pressure must be removed from the pipe before work begins. The source guides are historical and may not account for defect geometry, pipe material, cyclic loads, fluid compatibility, environmental conditions or governing standards. Repairs to pressure-containing or structural components require competent engineering review and authorisation.

SOURCE NOTE: Data transcribed from supplied low-pressure guide (rev. 2, 10 May 2019) and medium-pressure guide (rev. 1, 10 May 2019). These documents were issued for a predecessor product. This draft deliberately does not assert equivalence or certification for TITAN WRAP.