

TDS 11 · PE / PP CORROSION PROTECTION AND WRAPPING SYSTEM

PP Fibre-Reinforced Anti-Corrosion Tape

Polypropylene mesh-reinforced anti-corrosion tape



SYSTEM ROLE · PRIMARY WRAP · OUTER WRAP

Heavy-duty reinforced wrap for buried steel assets exposed to mechanical risk and soil stress.

Product description

A mechanically reinforced tape using a modified polypropylene mesh-reinforced woven fibre backing and a high-tack butyl rubber / polyisobutylene-modified bitumen adhesive, combined by hot lamination. The mesh skeleton resists soil-stress creep, indentation, abrasion and impact, while the thick adhesive layer conforms around spiral weld profiles without voids.

Typical system configuration



Zhuohuang systems are modular. The configuration above is typical for this product; components are added or omitted according to substrate condition, geometry, operating environment and project specification.

ALSO USED AS A PROTECTIVE OUTER WRAP

PP fibre-reinforced tape is used both as a primary wrap and as a mechanically reinforced protective outer wrap. The mesh skeleton carries handling, backfill and soil-stress loads, so the primary corrosion barrier underneath is not required to resist mechanical damage. Select it for rocky backfill, road and rail crossings and directional drilling pull-in.

KEY CHARACTERISTICS

- Mesh reinforcement — tensile, indentation and creep resistance
- Thick adhesive seals spiral weld seams
- Single-pass application to full thickness
- Excellent ageing, chemical and dielectric performance

TYPICAL APPLICATIONS

- New buried steel pipelines and storage tank shells
- Natural gas and town gas distribution mains
- Repair of aged corrosion protection coatings
- Projects with high soil stress or rocky backfill

WHY IT MATTERS

Feature	What it means on site
Mesh-reinforced construction	Carries handling, backfill and soil-stress loads, which is why it also works as an outer wrap over another corrosion system.
Single-pass to full thickness	Fewer passes per joint on a production spread — the cost that matters on a pipeline is labour, not tape.
Thick adhesive over weld seams	Conforms around the spiral weld with no channel left for water to track along.

TYPICAL APPLICATIONS — FIELD PHOTOGRAPHS



Buried steel pipeline



Storage tank shell



High soil-stress sections

Technical properties

Property	Typical / standard value	Test method
Backing	PP mesh-reinforced woven fibre	—
Adhesive	Butyl rubber / PIB-modified bitumen	—
Thickness range	1.0–2.0 mm	—
Widths	50–300 mm	—
Roll lengths	15 / 20 m	—
Primer	Modified bitumen primer	—
Application	Single-pass where specified; hand or machine wrapping	—

Values are typical or standard configurations for the grade described and are not universal acceptance limits. Where a property is not listed, it is not declared for this grade in the source technical documentation. Confirm the applicable grade and project acceptance criteria before order.

Sizes and packaging

Size	Reference	Packing
300 / 150 / 100 / 75 / 50 mm	carton 510×260×320	15–24 m ² / carton by gauge
200 mm	carton 510×260×420	20–32 m ² / carton by gauge
230 mm	carton 510×260×260	11.5–18.4 m ² / carton
250 mm	carton 510×260×260	12.5–20 m ² / carton

Carton content depends on the ordered thickness and roll length combination.

Third-party verification

INDEPENDENT LABORATORY TEST	
Report number	CTG2410221378A_SR176AC
Laboratory	Shenzhen Third-Party Testing Technology Co., Ltd. (CTG)
Accreditation	CMA / CNAS accredited laboratory
Sample tested	PP Anti-Corrosion Tape and Primer
Test basis	GB/T 6672-2001, GB/T 1040.3-2006, GB/T 1408.1-2016, GB/T 1037-1988, GB/T 1725-2007, SY/T 0414-2017
Date of issue	11 October 2024
Conclusion	All tested items assessed as Pass.
This report was issued on this product.	

The full report is available on request. A faithful English transcription is issued as a separate single-product file and in the compilation Zhuohuang Test Reports – English Compilation. A test report records the properties measured on the sample submitted; it is a test result, not a system certification.

Application

Step	Procedure
01	Remove oil, dirt and unstable corrosion products. Prepare the steel to the project-specified cleanliness.
02	Apply the compatible modified bitumen primer uniformly and allow it to reach the specified condition.
03	Spiral wrap the tape under controlled tension with the specified overlap, keeping the adhesive in continuous contact with the steel.
04	Press the tape around weld profiles and at overlaps so that no channel remains.
05	Inspect (visual and holiday detection where specified) before lowering-in and backfilling; protect the completed wrap during handling.

STORAGE

Store sealed in the original packaging in a cool, dry, ventilated place, away from direct sunlight, open flame, strong heat, strong oxidising agents and sources of ignition. Keep clear of contamination. Unopened material can be stored long-term at ambient temperature.

HEALTH AND SAFETY

The products in this range are not classified as dangerous goods for supply. Wear grease-resistant gloves and avoid contact with the eyes. Wash hands with soap and water after handling. Combustion releases carbon monoxide and hydrocarbon by-products. Consult the product safety data sheet before use; it is supplied on request.

WASTE

Avoid or minimise waste wherever possible. Do not discard waste material, including packaging, in the surrounding environment. Follow all applicable disposal legislation.

DISCLAIMER

The information in this document is based on Zhuohuang product records, manufacturer data and third-party test reports available at the date of issue. Values are typical or standard configurations and are not universal acceptance limits. Product performance depends on substrate condition, surface preparation, geometry, operating temperature and exposure. Confirm the applicable grade, current packaging, project acceptance criteria and the relevant safety data sheet before order and application.

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