

TDS 01 · PETROLATUM CORROSION PROTECTION SYSTEM

Petrolatum Anti-Corrosion Tape – Marine Grade

Marine petrolatum tape · petrolatum wrapping tape



SYSTEM ROLE · PRIMARY WRAP

Primary cold-applied wrapping layer for shipboard pipework, fittings, flanges and valves.

Product description

A polyester-reinforced synthetic fibre fabric impregnated and coated with a petrolatum compound, corrosion inhibitors and inert fillers. The tape does not cure, harden or crack, accommodates the thermal movement of the substrate and can be applied directly in damp conditions.

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.

CHOOSING THE PROTECTIVE OUTER WRAP

Three outer wrap materials are available and the choice follows the exposure, not the primary tape: **aluminium foil** for above-ground and sunlit assets, **PE tape** for buried service with normal backfill, and **PP fibre-reinforced tape** where soil stress, rocky backfill or handling damage govern. Where there is no ultraviolet or mechanical exposure, an outer wrap may not be required at all.

KEY CHARACTERISTICS

- Cold applied — no heat, no hot work
- Applied over St2-prepared steel
- Conforms to complex geometry
- Non-curing, non-hardening, non-cracking

TYPICAL APPLICATIONS

- Shipboard pipework and fittings
- Flanges, valves and couplings on board
- Regular and irregular metal shapes
- Short- to medium-term protection at low installed cost

WHY IT MATTERS

Feature	What it means on site
IMPA-coded	Orderable through normal ship-chandler channels without a special part-number exercise.
Cold applied on board	No hot work permit and no curing time in an operating engine room or on deck.

TYPICAL APPLICATIONS — FIELD PHOTOGRAPHS



Port and shipboard environment



Valves and fittings



Structural steel connections

Technical properties

Property	Typical / standard value	Test method
Product form	Impregnated synthetic fibre tape	—
Thickness	1.1 mm	GB/T 3820
Surface density	1.1 kg/m ²	—
Breaking strength	200 N/50 mm	GB/T 3923.1
Elongation at break	10 %	GB/T 3923.1
Breakdown voltage, 55 % overlap	15.2 kV	GB/T 1408.1
Breakdown voltage, single layer	12 kV	GB/T 1408.1
High-temperature resistance, non-dripping	55 °C	GB/T 30651
Water vapour transmission	2.4 g/(m ² ·24 h)	GB/T 1037
Salt-water / alkali resistance (10 % NaOH, ambient, 7 d)	No blistering, cracking or peeling	SY/T 0315
Operating temperature	−20 °C to +50 °C	—
Installation temperature	−5 °C to +45 °C	—
Surface preparation	Clean, dry; St2 or project requirement	—
Minimum overlap	55 %	—

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
50 mm × 10 m	IMPA 812471	36 rolls / carton
100 mm × 10 m	IMPA 812472	18 rolls / carton
150 mm × 10 m	IMPA 812473	12 rolls / carton
200 mm × 10 m	IMPA 812474	8 rolls / carton

Widths from 50 mm to 300 mm available; other roll lengths on request.

Third-party verification

INDEPENDENT LABORATORY TEST	
Report number	CTICAQ4512401550823164BR
Laboratory	CTIC Testing Technology (Guangdong) Group Co., Ltd.
Accreditation	CMA 202319017008 · CNAS L19533 · ILAC-MRA
Sample tested	Petrolatum (Ester) Oil-Based Anti-Corrosion Tape
Test basis	CDP-S-OGP-AC-019-2014-2 and client-specified indices
Date of issue	18 July 2024
Conclusion	All tested items comply with the requirements.
This report was issued on a sample submitted as “Petrolatum (Ester) Oil-Based Anti-Corrosion Tape”. The report does not state a product model, so the result is given here as a related reference for this product family rather than as a test of this specific 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, grease, dirt, loose rust, scale and flaking coating by scraping, wire brushing or blast cleaning. Prepare to St2 or the project-specified level. The surface must be clean; for standard grades it must also be dry.
02	Apply the compatible primer as a continuous film by stiff brush or gloved hand, working the material into pits and irregular details.
03	Fill gaps, cavities, bolt recesses and abrupt profile changes with mastic and feather the edges to a smooth profile.
04	Place the outer face of the tape roll against the substrate and wrap spirally with a minimum 55 % overlap on each turn.
05	Smooth the wrapping firmly with a gloved hand to remove air and ensure full contact, particularly at edges and terminations.
06	Install outer protection where ultraviolet, mechanical or soil-stress exposure requires it.

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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