2-Ply Inner Wrap PE Tape

Anticorrosion inner wrapped coating system

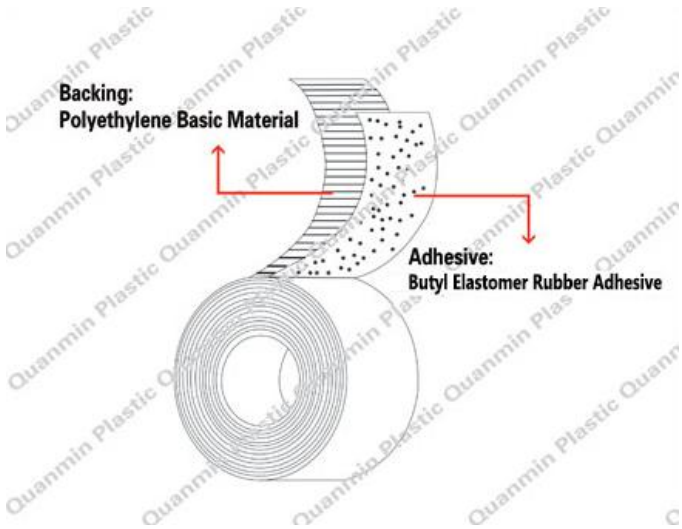
Features

- Uniform and consistent coating thickness
- Excellent adhesion to pipe and self
- Excellent resistance to cathodic disbonding
- Compatible with all pipe diameters and generic plant coating systems
- Can be applied over a wide temperature range
- Consistent quality in factory prefabrication and on-site application

Our 2-Ply Inner Wrap PE Tape is an anti-corrosion tape co-extruded and heat-laminated from polyethylene and butyl elastomer rubber adhesive. It is designed for corrosion protection of both aboveground and underground metal pipelines transporting water, oil, natural gas, and other media.

Description

This type of inner wrap should be applied after primer coating and before the outer layer installation. To ensure strong adhesionb of the coating system to the pipe surface, we recommend using solvent-based butyl rubber primers 1019 or 1027. The high solid content of these primers provides the coating system with optimal compatibility when applying PE anti-corrosion tape. Additionally, the 2-Ply Inner Wrap PE can be used on ductile cast iron pipes, in which case 1027 primer is specifically recommended.



Project	T 1508-20	T 1635-25	T 1762-30	Test Method
Total Thickness	0.508mm (20mils)	0.635mm (25mils)	0.762mm (30mils)	ASTM D1000
Polyethylene Film	0.305mm (12mils)	0.330mm (13mils)	0.254mm (10mils)	ASTM D1000
Butyl Rubber Adhesive	0.203mm (8mils)	0.305mm (12mils)	0.508mm (20mils)	ASTM D1000
Elongation at Break @23°C (73.4°F)	225%	230%	200%	ASTM D1000
Tensile Strength @23°C (73.4°F)	56N/cm (32lbs/in)	61.3N/cm (35lbs/in)	52.5N/cm (30lbs/in)	ASTM D1000
Peel adhesion to primed steel @23°C (73.4°F) 300mm/minute	26.0N/cm (237.6oz/in)	34.0N/cm (311oz/in)	35.5N/cm (324oz/in)	ASTM D1000
Peeladhesion Tobacking @23°C (73.4°F)	6.0N/cm (54.8oz/in)	8N/cm (73.1oz/in)	10N/cm (91.2oz/in)	ASTM D1000
Dielectric Strength	≥23.0KV			ASTM D149
Cathodic Disbondment	≤6.2mm (0.244in radius)			ASTM G8
Water Vapor Transmission Rate	≤0.35g/m^2/24h. @23°C (73.4°F)			ASTM E96
Water Absorption Rate	m^2≤ 0.08% 24h.@23°C (73.4°F)			ASTM D570
Application Temperature	-34°C to +80°C (-29°F to 176°F)			
Max Serve Temperature	+85°C (185°F)			
Diameter of Inner Core	41 or 76mm (1.614 or 2.992in)			
Available Roll Size (width * length)	50 to 750mm X 15 to 240m (1.97 to 29.53in X 49.29 to 787.4ft)			
Color	Black			

Equation for Pipe Coating Requirements

(Width of Coating in inches) × (Area of pipe in square feet)

---------- = Squares of Coating Required

(Width of coating in inches - overlap in inches) × 100

* Area of pipe in square feet = (Diameter in inches) / 12 × 3.1416 × (Length in feet)

* One square = One hundred square feet = 9.29 square meters

(Width of Coating in mm) × (Area of pipe in square meter)

---------- = Square meter of Coating Required

(Width of coating in mm - Overlap in mm)

* Area of pipe in square meter = (Diameter in mm) / 1000 × 3.1416 × (Length in meter)

Storage and Shelf Life

This product should be stored in a dry and ventilated place, and the same environment must be maintained during transportation. The storage temperature range should be no lower than 16°C (60°F) and no higher than 49°C (120°F). Humidity should not exceed 90%. Vertical stacking height ≤5 layers. Shelf life 12 months.

General Requirements for Applications

General: The area to be coated has to be cleandry, and free from oil, grease and dust. All contamination including mill-scale has to be removed.

Degreasing: Degrease surfaces with Toluene or Heptane and e.g. a lint-free cloth.

Preventing Condensation of Water: Before and during construction, the working surface temperature must always remain at least 3°C (37.4°F) above the dew point temperature.

Working Surface Temperature: The surface temperature of the operation should be maintained between 20°C and 40°C (68°F to 104°F) and preheating should be performed if necessary.

Special Handling: For spiral welded pipelines, filler materials should be used. Choose our butyl rubber filler tape to supplement the gaps.

Application Instruction

Step 1

Clean substrate to SSPC-SP6/NACE3 or SA2 (Commercial Blast) with a 25–76μm (1–3mils) anchor profile.

Step 2

The primer should be uniformly applied to achieve a wet film thickness of 50.8 to 76.2micrometers (2 to 3mils). Before applying the 2-layer structure PE inner tape, the primer must reach a "touch-dry" state.

Step 3

The spiral coating is selected from T1520-20/T1635-25/T1762-30 inner layer (anti-corrosion layer), with a closing rate of 1% to 2%, and the overlap width is not less than 25.4mm (1 in).

Step 4

Helical winding, with optional T2520-20/T2635-25/T2762-30 outer layer (mechanical protection layer), maintaining a necking rate of 1% to 2%, and the overlap shall not be less than 25.4mm (1 inch).

Step 5

Perform holiday detection per NACE SP0274 Handling and commissioning.

Friendly Reminder

1. Objects coated with polyethylene anti-corrosion tape shall not bear external loads from supports or lifting equipment. Unbonded outerwrap materials can be selected for enhanced protection, such as: Non-woven polypropylene blanket, Non-woven polypropylene blanket, etc.

2. The backfill should be kept clean and should not contain any foreign matter that could damage the coating system.

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