Outer Wrap PE Tape

Coating System for Pipelines - Outer Layer

Features

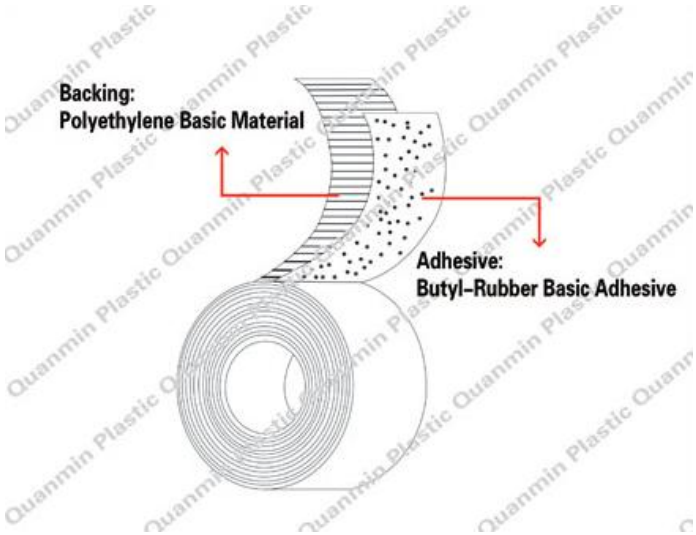
- Uniform and consistent coating thickness
- Permanent bonding and non-detachment performance
- Ultra-strong resistance to ultraviolet rays
- Outstanding mechanical strength
- Compatible with all pipe diameters and generic plant coating systems
- Convenient cold construction

A protective mechanical outer wrap for pipes featuring complete bonding, composed of a polyethylene film with butyl rubber adhesive.

Our two-layer structured OuterWrap PE Tape is a cold-applied wrapping tape with a specially treated polyethylene backing that exhibits resistance to outdoor weathering. The unique adhesive is formulated with butyl rubber, combining a tough backing with a highly viscous adhesive to enhance metal corrosion resistance while effectively blocking water and oxygen intrusion, as well as resisting soil stress.

Description

This product demonstrates excellent resistance to corrosive saltwater, soil acids, alkalis, salts, common chemicals, chemical vapors, and withstands outdoor weathering and sunlight exposure. The Outer Wrap PE Tape pipeline coating system delivers outstanding performance by providing effective mechanical protection in buried, onshore, and offshore environments. It complies with ASTM D1000 and EN12068 standards.



Project	T 2381-15	T 2508-20	T 2635-25	T 2762-30	Test Method
Total Thickness	0.381mm (15mils)	0.508mm (20mils)	0.635mm (25mils)	0.762mm (30mils)	ASTM D1000
Polyethylene Film	0.254mm (10mils)	0.381mm (15mils)	0.508mm (20mils)	0.635mm (25mils)	ASTM D1000
Butyl Rubber Adhesive	0.127mm (5mils)	0.127mm (5mils)	0.127mm (5mils)	0.127mm (5mils)	ASTM D1000
Elongation at Break @23°C (73.4°F)	400%	430%	400%	400%	ASTM D1000
Tensile Strength @23°C (73.4°F)	66.3N/cm (37.9lbs/in)	70.5N/cm (40.3lbs/in)	86.5N/cm (40.4lbs/in)	86.5N/cm (40.4lbs/in)	ASTM D1000
Peel Adhesion to Backing @23°C (73.4°F)	≥5.6N/cm (51.2oz/in)				ASTM D1000
Volume Resistivity	$2.3X10^{15}\Omega$·cm ($9.14x10^{14}$ohm·in)				ASTM D257, 07
Impact Resistance	15.5J (137.2in.lbf)				ASTM G14
Water Vapor Transmission Rate	0.15g/m^2/24h. @23°C (73.4°F)				ASTM E96
Water Absorption Rate	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	White/Black/Blue/Red/Yellow/Green				

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 Requirements: The area to be coated must remain clean and dry, free from grease, oil stains, and dust.

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.

Inspect the surface before application: Perform remedial treatment on any defects present on the work surface.

Application Instruction

Step 1

Construction shall be carried out using the spiral winding method.

Outer Wrap PE Tape should be tensioned with a typical overlap of 50%. A minimum overlap of 25mm (1 inch) is required, and the initial and termination wraps should be straight circumferential wraps. Sufficient tension must be applied throughout the entire application process to ensure continuous bonding of the tape.

Step 2

Perform holiday detection per NACE SP0274 Handling and commissioning.

Friendly Reminder

1. The entire coating system's object must not bear external force loads from supports or lifting equipment, etc. 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.

For more technical inquiries, please visit our website.

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