



Hot-applied tape coating for the corrosion protection of pipelines operating at elevated temperatures.

Product description

Rayclad 80/120 pipe coating tape

Construction: two layer system:

First layer: High shear strength copolymer adhesive

Second layer: Radiation cross-linked, high density polyethylene.

Rayclad 80/120 hot-applied products are designed to provide a continuous, holiday-free, permanent barrier, which affords long-term protection for high-temperature pipelines operating both on - and offshore. Rayclad is available in formulations for pipelines operating up to 120°C (248°F), and is supplied in various widths to accommodate different pipe diameters.

The installation is carried out either by professional pipe coaters in their coatings plants, or near the pipeline construction site using mobile pipe coating equipment. When wrapped around a properly blast-cleaned and preheated pipe, the adhesive melts. Simultaneously, the thermal recovery of the backing forces the molten adhesive to flow, fill and completely coat the pipe surface, thereby forming a tight and uniform bond.

Product features/benefits

- **Supplied as a complete coating ready to install**
Ease of installation.
- **Wide handling and operation temperature range**
Allows installation at temperatures as low as -40°C (-40°F)
Formulations available for pipelines operating to 80°C (176°F) and 120°C (248°F).
- **Can be stored indefinitely without shelf-life or gel-time problems**
Versatile.
- **Has a high resistance to ultraviolet light, fungus, bacteria and cathodic disbondment**
Long-lasting performance.
- **Compatible with varying pipe diameters**
Minimizes inventory, thus saving money
- **High shear and impact resistance - no rock-shield required**
Strong and tough.
Highly resistant to transport and backfill damage.

Product selection guide

	RAYCLAD 80	RAYCLAD 120
Max operating temperature	80°C (176°F)	120°C (248°F)
Compatible line coatings	N.A. (bare steel)	N.A. (bare steel)
Min preheat temperature	170°C (338°F)	190°C (374°F)
Recommended pipe preparation	SA 2 1/2	SA 2 1/2
Soil stress restrictions	None	None

Product thickness

	RAYCLAD/A	RAYCLAD/B	RAYCLAD /9-9
Backing (as supplied)	0.024 in. (0.61 mm)	0.030 in. (0.76 mm)	0.027 in. (0.69 mm)
Backing (as recovered)	0.030 in. (0.76 mm)	0.039 in. (1.00 mm)	0.035 in. (0.90 mm)
Adhesive (as supplied)	0.026 in. (0.66 mm)	0.045 in. (1.14 mm)	0.035 in. (0.90 mm)

Product properties: RAYCLAD

Property	Test method	RAYCLAD 80	RAYCLAD 120
		Typical Value	
Backing			
Tensile strength	ASTM D-638	3300 psi	2700 psi @ 23°C (73°F) 660 psi @ 120°C (248°F)
Elongation	ASTM D-638	600	580% @ 23°C (73°F) 560% @ 120°C (248°F)
Hardness, Shore D	ASTM D-2240	55	57
Shrink Force	ASTM D-638	40 psi	40 psi
Dielectric strength	ASTM D-149	900 volts/mil	800 volts/mil
		35 kV/mm	31.5 kV/mm
Moisture absorption	ASTM D-570	0.05%	0.06%

Property	Test method	RAYCLAD 80	RAYCLAD 120
		Typical Value	
Adhesive			
Softening point	ASTM E-28	120°C (248°F)	175°C (347°F)
Lap Shear	ASTM D-1002	750 psi @ 23°C (73°F)	1300 psi @ 23°C (73°F)
		65 psi @ 80°C (176°F)	100 psi @ 120°C (248°F)
Sleeve			
Peel to Steel	ASTM D-1000	21 lbs/in. width	30 lbs/in. width
Cathodic disbondment	ASTM G-42 30 days	18 mm radius	10 mm radius
		@ 60°C (140°F)	@ 120°C (248°F)
Hot water immersion	ASTM D-870 120 days	@ 80°C (176°F)	@ 90°C (194°F)
		no delamination, no blisters or water under sleeves	no delamination, no blisters or water under sleeves
Soil stress creep resistance	TP-206 24 hrs	@ 80°C (176°F)	@ 120°C (248°F)
		0.003 inches (0.051 mm)	0.002 inches (0.051 mm)
Impact Resistance*	ASTM G-14	34 in-lb	75 in-lb
Penetration Resistance*	ASTM G-17	Pass @ 80°C (176°F)	Pass @ 120°C (248°F)

* on Rayclad /B construction

Ordering information

RAYCLAD type products are available:

- as a roll
minimum order quantity: 2000 SQM

Example: RAYCLAD 80-6x500/A

		Standard Ordering options
80	Product type	RAYCLAD 80, RAYCLAD 120
6	Roll width in inches (Sw)	3" (75 mm), 4" (100 mm), 6" (150 mm), 9" (225 mm), 11" (285 mm)
500	Roll length in feet (Sl)	500 feet (150 m) for /A, 400 feet (120 m) for /B, 450 feet (137 m) for /9-9
A	Thickness code	/A, /B, /9-9

Application table

Product width	Pipe diameter (inches)	Pipe diameter (DN)
3" (75 mm)	< 4.500	< DN100
4" (100 mm)	4.500 to 5.563	DN100 to DN125
6" (150 mm)	6.625 to 8.625	DN150 to DN200
9" (225 mm)	10.750 to 14.000	DN250 to DN350
11" (285 mm)	> 20.000	> DN350

Tape lengths depend on the pipe size and product width, see application table AT-RAYCLAD

For proper product installation, contact Berry Plastics representative.



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