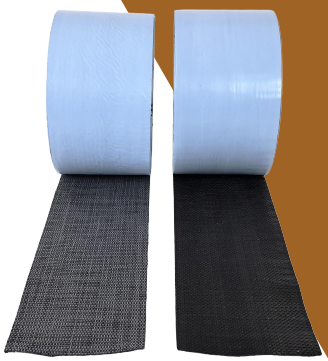
polyguard
PIPELINE



RD-6®

PRODUCT OVERVIEW

Polyguard RD-6® Coating System is a non-shielding anti-corrosion system used on buried and submerged line pipe, rehabilitation and new construction girth welds. RD-6 can also be used above ground but the coating must be protected from harmful UV rays by using RD-6 UV Overcoat. It consists of a liquid adhesive, a geotextile backed protective pipeline coating and SP-6 outerwrap. RD-6 is compatable for pipelines operating up to 145°F (63°C); for pipes operating above 145°F, RD-6 HT must be used.

Corrosion protection results from the polymer modified coating layer. Bonded to the outside surface of this coating is a strong, tightly woven, polypropylene geotextile fabric, which provides non-shielding properties plus high breaking strength and low elongation. RD-6 coating is manufactured in rolls for ease of application using a Polyguard approved machine such as the Wrapster or power operated machine. RD-6 is produced with a silione coated relese liner to prevent the layers from adhering to one another and assist in the application process.

- Non-shielding coating
- Fast & efficient no cure application
- Resistant to soil stress
- Resists disbondment from pipe even if surface is less than perfect
- Allows for immediate backfill
- Factory controlled thickness

PROPERTY		ASTM METHOD	TYPICAL RESULTS (Metric)	TYPICAL RESULTS (English)
Total Thickness - Single layer of RD-6 Coating		D 1000	1.27 mm	0.05 inches (50 mils)
Breaking Strength		D 1000	193 N/10mm width	110 Lbs.F/in. width
Elongation % at break		D 1000	< 30%	< 30%
Water Vapor Transmission Rate		E 96 Procedure B	.006 g/h•m^2	.009 grains/h•ft^2
Cathodic Disbondment	77°F (25°C), 30 days, 1.5V	G 8	< 5 mm radius	< *0.197 in.* radius
	150°F (66°C), 90 days, 3.0V	G 42	< 10 mm radius	< *0.4 in.* radius
Non-shielding properties *(Does not shield cathodic protection currents)*		Internal ***Polyguard***	Pass (non-shielding)	Pass (non-shielding)
Dielectric Strength *(breakdown voltage, KV)*		D 149	> 12 KV (9.45 V/µm)	> 12 KV (240 V/mil)
Adhesion to primed surface		D 1000 Method A	35 N/10mm width	20 lbs. F/in. width
Adhesion to polyethylene		D 1000 Method A	28 N/10mm width	16 lbs. F/in. width
Impact Resistance		G 14	2.6 g/cm	23.0 in./lb.

RD-6 meets/complies with the following standards:

- NACE SP0109-2023: Application of Tape Coatings for External Corrosion Protection of Buried Metal Pipelines.
- ANSI/AWWA C233-24: Geotextile Backed Tape Coatings for Steel Water Pipe and Fittings.
- CSA Z245.30:22: Field-applied external coatings for steel pipeline systems.
- ISO 21809-3: Petroleum and natural gas industries – External coatings for buried or submerged pipelines used in pipeline transportation systems – Part 3 Field joint coatings.

RD-6 is currently produced with a black backer: previous grey backer may continue to be supplied for up to 12 months.

REV101426

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