

POLYCON

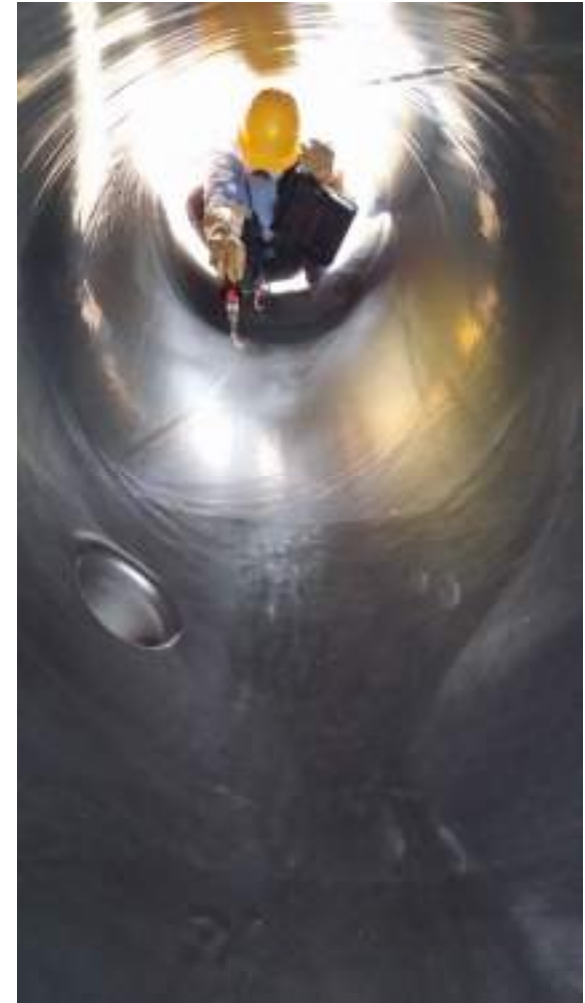
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ROTOLINING In POLYCON GULF

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ROTOLINING

What is Rotolining ?

An internal corrosion protection technique that allows thermosetting of enhanced Polyethylene, ETFE, PA11-12, PVDF and other polymer materials to form a uniform and seamless layer on the metal surface of pipes, vessels, tanks and fittings etc.

The rotational molding process allows a seamless lining of **2 - 12 mm** thick to the interior surfaces of the steel pipes, fittings and vessels, mitigating under-insulation-corrosion (UIC) and enhancing flow-rates, at the same time.



BENEFITS OF ROTOLINING

- Best-in-Class Internal Corrosion Protection Technology with design life 50 years.
- Excellent corrosion resistance against highly corrosive fluids like, sea-water, sewage water, crude oil, nuclear waste water, acids (as strong as 98%), bases and other chemicals.
- Zero failure at low to very high operating temperatures - from cryogenic temperature up to 300C).
- No UIC, Lower heat dissipation, improved flowrates, reduced deposition and overall lower pump power consumption.
- “Lowest life-cycle cost” of corrosion protection of steel assets.

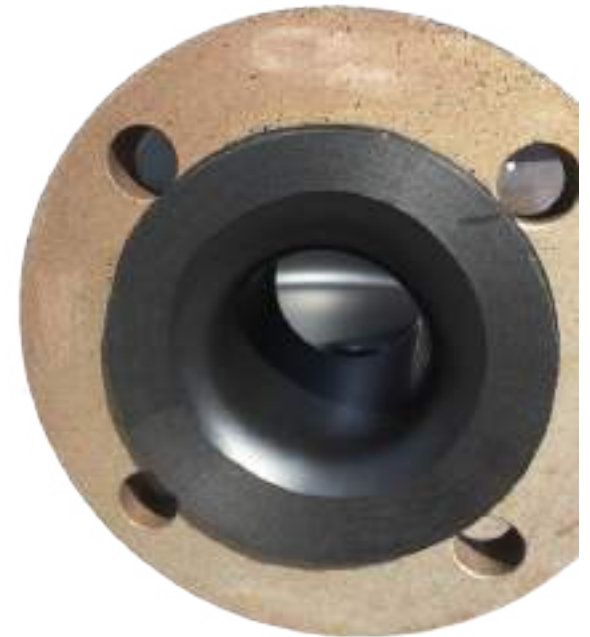
BENEFITS OF ROTOLINING

- Excellent Resistance to Corrosion from
 - ❖ Acids , Alkalies and Salts
- Seamless / Joint free Lining
- Easier to Line Complex Shapes
- Thicker Lining & Uniform wall thickness
- Practically all pipe sizes
- Fast processing time
- Process controls by sophisticated PLC



APPLICATIONS

- Steel Pipes, Spools and Fittings
- Skids, Vessels, Headers, Scrubbers, Tanks
- Water and Chemical Injection Systems
- Process Equipments
- Marine Piping Systems, BWTS
- Hydrogen Fuel Storage
- Nuclear Waste Water



INDUSTRIES

- Oil & gas
- Marine & Ship-building
- Chemicals, Petrochemicals, Fertilizers
- Power, Desal & Sewage Treatment Plants
- MEP & Water Transmission Systems
- Nuclear Power Plants
- Hydrogen Fuel



Description of Article	Internal Diameters				Maximum Length	Maximum Weight
	Minimum		Maximum			
	In mm	In inch	In mm	In inch	In mm	In Kgs
Straight Pipe - Small	50	2	600	24	6,000	2,200
Straight Pipe - Big	600	24	3,000	120	6,000	2,200
Straight, Single & Double Bend Spool - Small	50	2	600	24	1,750	2,200
Straight, Single & Double Bend Spool - Big	600	24	3,000	120	2,000	2,200
Equal Tees	50	2	600	24	2,000	2,200
Manifolds	50	2	600	24	2,000	2,200
Acid Tanker / Vessels	600	24	3,000	120	6,000	2,200



CAPABILITIES – DELIVERY TIME

DIAMETER (in inches)	NO. OF SPOOLS PER DAY
2	60
3-6	60
8-12	40
14-24	30
26+	10

ROTO LINING BENEFITS V/S ALTERNATE TECHNOLOGIES

Particulars	Rotolining (PE)	Sheet Lining	Powder Coating	FRP	Epoxy Coating	Glass Lining	Exotic Alloy
Seamless Liner	Yes	-	Yes	-	Yes	Yes	-
Mechanically-bonded Liner	Yes	-	Yes	-	Yes	Yes	-
Complex Shapes	Yes	-	-	-	-	-	Yes
Thick Liner (3 -8 mm)	Yes	-	-	-	-	-	-
Resists Abrasion	Yes	-	-	-	-	Yes	Yes
Easily Repaired	Yes	Yes	-	-	-	-	Yes
Impact-resistant	Yes	Yes	-	Yes	-	-	Yes
No direct internal access required	Yes	-	-	-	-	-	Yes
Reuse Existing Structures	Yes	Yes	Yes	-	Yes	-	-



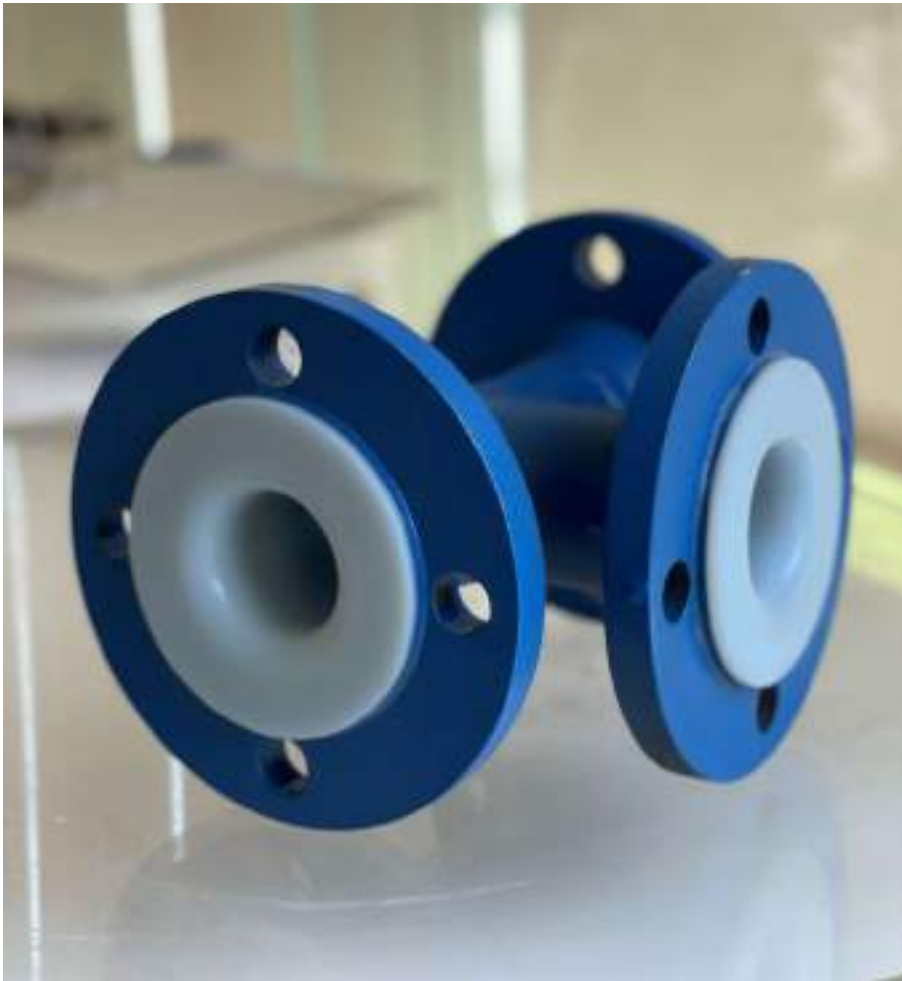
POLYPROPYLENE – SUSTAINABLE AT 90 C

PHYSICAL PROPERTIES OF RAW MATERIAL

Property	Polyethylene (PE)			ETFE	Polypropylene (PP)
	First Layer	Second Layer	Monolayer		
Melt Flow Index (g/10 min.)	2.0 – 6.0 (190°C/2.16 Kg)	3.0 – 6.0 (190°C/2.16 Kg)	3.0 – 8.0 (190°C/2.16 Kg)	20 – 30 (297°C/5Kg)	14 (230C/5Kg)
Density of Compound (gm/cc)	≥ 0.880	≥ 0.925	≥ 0.925	> 1.72	> 0.900
Oxidation Induction Time	> 15 min. at 210°C	> 15 min. at 210°C	> 15 min. at 210°C	> 15 min. at 300°C	









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Protecting Your Steel Assets



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