



Rilsan®

RILSAN® COATING FOR THE FLUID TRANSFER INDUSTRY





Rilsan®

The benefits of Rilsan® coatings in piping system for fluid transportation and treatment

Rilsan® coatings have been used in water treatment plants and in fluid transportation system since 1967. Rilsan® offers unique benefits by protecting metal parts from corrosion, mechanical impact and chemical attack, while preserving water quality.

➤ Preserving water quality

Rilsan® coatings meet the requirements of the various regulations regarding the suitability of materials in contact with drinking water.

They have been granted official approval in many countries:

- France (circular DGS/VS4/N°99.217)
- United Kingdom (WRAS and DWI certifications)
- Germany (KTW and W270 certifications)
- Netherlands (ATA certification)
- United States (NSF61 listing)
- Japan (Ministry of Health)
- Australia (AS4020 certification)
- Russia (Ministry of Health)

➤ Protecting parts during handling and storage

Rilsan® coatings possess remarkable physical and mechanical performance, in particular:

- good weathering resistance
- good thermal stability and low moisture pick-up
- outstanding impact resistance
- excellent flexibility

➤ Excellent durability and lower maintenance costs

Rilsan® provides excellent protection against corrosion, mechanical impact and chemical attack for both new and refurbished parts of all shapes (pipes, flanges, cross fittings, elbow joints, 4-way joints, Y-joints, etc.). It protects steel, cast iron and aluminum from the harshest attack.



Resistance to the harshest attack

Rilsan® coatings feature remarkable resistance to:

- effluents and sea water
- salt spray
- cathodic delamination
- chlorine, chlorides, hypochlorites, hyposulphites, ozone, hydroxides and other chemical agents used in water treatment, purification and desalination plants, as well as in cleaning ultrafiltration, microfiltration and reverse osmosis membranes.

These characteristics ensure that Rilsan® coatings fulfill the specification requirements set out in French standards NFA49713 and NFA49714, European standard EN10310, American standard AWWA C224-01, Australian standard ANZ4158-2003, Dutch standard KIWA K-759, and Japanese standard JWWA WSP067-2001.

With its excellent resistance to a wide range of extreme and repeated exposures, Rilsan® provides a technical solution in applications that are too harsh for most stainless steel grades.

Examples include desalination plants, and membrane filtration skids in which the membranes require cleaning with very strong chemical agents.



100 m³/day reverse osmosis desalination plant as fitted to the UK Royal Navy's Aircraft carrier HMS Illustrious.

Saving energy and preserving the properties

- A smooth surface with low roughness helps reduce linear pressure loss while ensuring effective pumping
- Reduces fouling caused by the surface adhesion of organic and inorganic substances
- Exceptional wear resistance
- Exceptional cavitation resistance
- Exceptional corrosion resistance

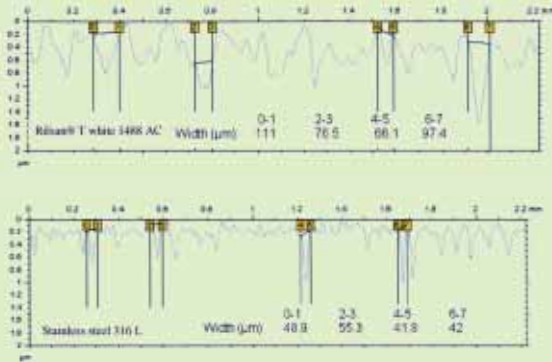
Properties of Rilsan® coatings



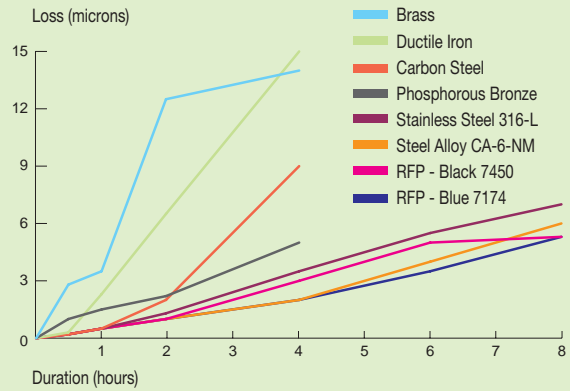
Properties	Standard	Unit	Value
Thickness of coating	ISO 2808	µm	Min 200 µm
Hardness	ISO 868		75-85 Shore D
Dielectric strength	ASTM D 149	kV/mm	30-36 minimum at 300-450 µm
Impact resistance Sphere: Ø 16 mm	ASTM G 14	J	2 minimum
Resistance to salt spray 1000 h at 5% NaCl, 35°C	ISO 7253		
Adhesion class	EN10310		3 or better
Resistance to hot water 50 ± 2°C, 14 days	AS/NZS 4158-2003 AS3862		
Adhesion class	AS1580.408.2		1 or better
Resistance to waste water 23 ± 3°C, 30 days			
Adhesion class	EN10310		3 or better
Resistance to demineralized water 23 ± 3°C, 30 days			
Adhesion class	EN10310		3 or better
Cavitation resistance	ASTM G32	µ/hour	5 maximum



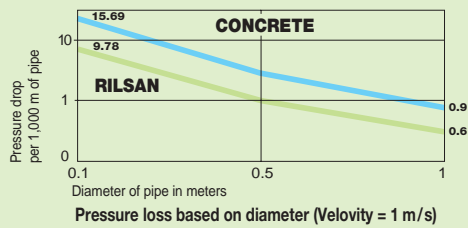
Surface roughness



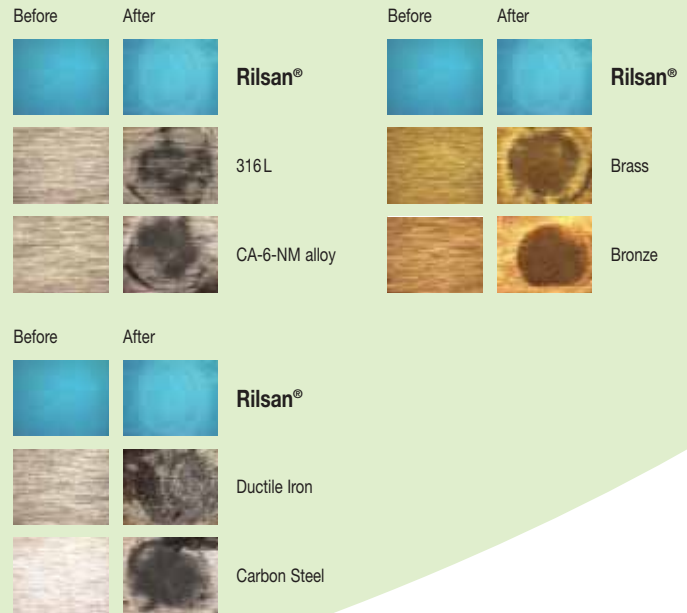
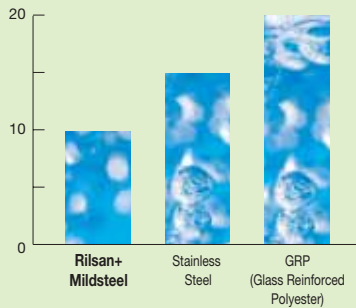
Cavitation resistance



Linear pressure drop



Cost of installed system



A global chemical player, Arkema combines 3 related and integrated business segments: Vinyl Products, Industrial Chemicals, and Performance Products. Present in over 40 countries with 18400 employees, Arkema achieves sales of 5.7 billion euros (2005). With its research centers in France, the United States and Japan, and internationally recognized brands, Arkema holds leadership positions in its principal markets.

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