



Kersten Kunststoff(f)coating

Rilsan



Rilsan

Rilsan is a thermoplastic powdercoating made from vegetable ricinus oil. This oil is extracted from seeds of the ricinus communis plant cultivated in South-America, India and elsewhere. The plant is harvested several times a year depending on the climate. The seeds of the ricinus communis contain approximately 45% oil. This oil is used as the basis for a monomer. Through polymerisation, Arkema, France, produced the polymer, nylon 11, which Arkema has called Rilsan.

Applications

Rilsan is used for different purposes in several industries. Kersten Kunststoff-coating applies Rilsan as:

- All-sided corrosion protection for pipe systems in the potable water industry, shipbuilding industry, waste water industry, process industry and pipe systems for cooling water. Using a unique dip-coating technique, Kersten Kunststoff-coating applies Rilsan on pipes and constructions with a length up to 6 meters and a diameter of approximately 1400 mm.
- Covering/re-covering of rollers for offset-, offset rotation and other printing-presses.



Ricinus communis



Potable water installation, Wierden (NL)

Rilsan for piping systems

Dipcoating in a fluidised bed allows an all-sided pore-free uniform coating with a thickness of 0.3 - 0.4 mm. to be applied in a single procedure. This procedure results in application of a uniform corrosionprotection, including at places difficult to reach.



Potable water installation, Arnhem (NL)

Properties and benefits

The most important properties and benefits of Rilsan are:

- Chemical very resistant.
- Flexible and tough.
- Smooth and pore-free.
- Free of solvents.
- Weather resistant.
- Certified by Kiwa, Wics, DVGW, etc. for potable water applications.
- After cooling down and quality control, coated products are immediately ready for use without losing time through drying.
- Durable.
- Maintenance-free for the life of your installation.
- Pipe spools are ready for use when they arrive at the construction site.

Construction

All constructions should be accessible for visual inspection, grit blasting, coating and thickness and pore control. It is also necessary to round off sharp edges with a radius of 3 mm. All parts should be totally welded without pores, polished and welding drops should be removed. The holes for the bolts in flanges should be rounded and sized 2 mm. larger in diameter if corrosion-protection is required. For more detailed information please ask for the construction guideline.



Dipcoating

Dipcoating in a fluidised bed

Rilsan is a powder coating, which can be applied by dipcoating in a fluidised bed. Kersten Kunststofcoating uses this unique procedure to apply coatings to pipe systems and other constructions.

The procedure is:

- Check construction (according to the Kiwa BRL-K758) on arrival to ensure all products are suitable for coating.
- Grit blasting SA 2^{1/2}.
- Remove dust and apply primer.
- Preheat products in ovens to above the melting temperature of the Rilsan powder.
- Dipcoat in a fluidised bed. The preheated products are coated in a dipcoat installation, which includes a reservoir for the powder. Air is blown through the porous bottom of this reservoir, to fluidise the powder. The temperature of the products causes the powder to melt to a pore-free and homogeneous coating.



Grit blasting

- Quality is inspected after the products have cooled down. On request the coating will be certified according to the Kiwa BRL-K746 quality system.

The coating is finally certified by:

- Checking the thickness of the coating. The average coating thickness should be 400 µm with a minimum of 300 µm.



Qualitycontrol

- Checking the pore-freedom. The medium side of the coating is checked for pores with a spark test. The surface is tested with a voltage of 9 V/µm.
- Affixing the certification sticker to the product provided that the coating satisfies BRL-K746 requirements.

This procedure maximises corrosion protection and guarantees a long service life for your products and systems.

Rilsan for rollers

The quality of printing matter depends very much on the right distribution and transport of printing ink. The quality of the covering on the printing rollers is a very important factor that should not be underestimated.

Like many manufacturers of printing presses, we recommend Rilsan because it has excellent resistance to chemical influences of printing ink. The absorption of water and ink is very low and the surface is very smooth and durable.

Kersten Kunststofcoating covers new and used rollers. Before we can start covering used rollers, the old layer is removed very carefully. On request we check and if necessary precision-repair the shafts and bearing chambers of the rollers.



Rollers for printing presses

Rilsan is applied with an over-measure on the rollers. The Rilsan layer is then mechanically finished and if necessary profiled, depending on the function of the roller.



Mechanical treatment of Rilsan

Rilsan



Brummen



Kahla



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Kersten Kunststoffcoating B.V.
P.O. Box 40, NL-6970 AA Brummen
Vulcanusweg 2, NL-6971 GW Brummen
The Netherlands
Phone: (+31)0575 561500
Fax: (+31)0575 561829
E-mail: info@kersten-bv.nl
Homepage: www.kersten-bv.nl

Kersten Kunststoffcoating GmbH
Im Camisch 20, D-07768 Kahla/Thüringen
Germany
Sales: Phone (+49)036424 8899
Fax (+49)036424 8898
Production: Phone (+49)036424 8890
Fax (+49)036424 8891
E-mail: info@kersten-gmbh.de
Homepage: www.kersten-gmbh.de