



Rockit 431SR

Redefining laminar cooling roller coatings with laser cladding

Laminar cooling is a critical step following the hot rolling of steel plates and strips. During this process, the conveying rollers operate in a harsh environment—exposed to hot air, cooling water, and steel at temperatures ranging from 400 to 600°C. To perform reliably, roller surfaces must resist thermal fatigue, wear, and corrosion.

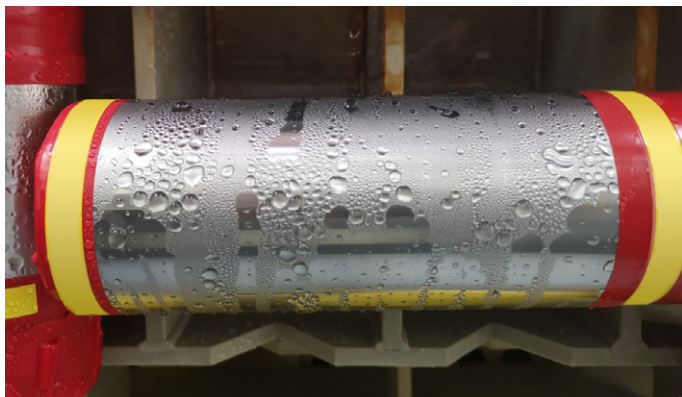
Traditionally, flame-sprayed coatings are used to protect the rollers from these failure mechanisms. However, one of the most common issues with conventional flame-sprayed coatings is peel-off, which compromises performance and increases maintenance costs. Höganäs' **Rockit 431SR** addresses this challenge.

Applied using advanced laser cladding technology, **Rockit 431SR** forms a strong metallurgical bond with the substrate, effectively eliminating peel-off. The laser process also reduces pinholes in the coating and helps deliver a smoother surface finish on the steel plates.

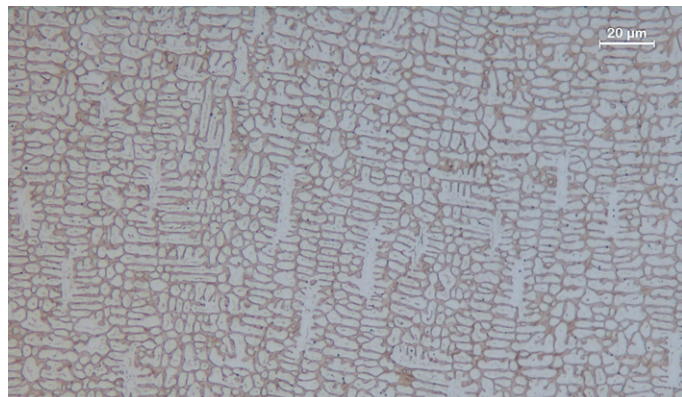
Compared to traditional flame spraying—often requiring multiple steps like blasting, preheating, spraying, fusing, and heat preservation—laser cladding with **Rockit 431SR** streamlines production. The coating is applied in a single automated step, enhancing process efficiency, reducing downtime, and significantly lowering overall costs. At the same time, coating quality and consistency are dramatically improved.

Advantages:

- **Lean, automated, eco-friendly process**
delivering exceptional coating quality and consistency
- **Superior cladding performance**
with smooth finishes and excellent machinability
- **Cost-efficient alternative**
to traditional flame spraying
- **Extended roller service life**
— over 2 years or 8 million tons of steel output



Acid salt spray test +300 hrs



Martensite and carbide/boride (etched in glycerine)

Typical chemical analysis (%)

Fe	C	Cr	Ni	Others
Bal.	0.18	16.5	1.75	<5%

Typical physical properties

Particle size	53-180 μm
Hardness	HRC ≥ 55

Wear properties

Abrasive wear (ASTM G65-method E)/ mm^3 *	45
JIS/ mm^3 *	15

Corrosion properties

Acid salt spray test ** ISO 9227 AASS	+300 hrs (Rp10)
--	-----------------

* Samples are laser clad with Rockit 431SR on steel substrate (42CrMo) with coating thickness ~ 0.5 mm, dilution $\sim 5\%$.

** Rating according to ISO10289.

For more information on Höganäs' Rockit and other products, please contact your local sales representative or scan/click the QR code to fill out a contact form.



The conditions of your use and application of our products described here, including any suggested formulations and recommendations, are beyond our control. All information is given without warranty or guarantee. Properties of the products referred to herein shall as general rule not be classified as information on the properties of the item for sale. In case of order please refer to issue number of the respective product data sheet. All deliveries are based on the latest issue of the product data sheet and the latest version of our General Conditions of Sale and Delivery.