

# Group Nivelles coats shower channels with wear-resistant colour coating

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**Group Nivelles N.V. manufactures and distributes bathroom furniture, solid-surface shower walls, washbasins and wall panels, as well as their patented shower and washbasin drainage system, I-Drain®. The family business distributes their products both throughout Belgium and internationally, and is continuously growing and improving their processes and products. Group Nivelles wished to investigate the possibility of finishing their I-Drain shower channels with a hard-wearing PVD (Physical Vapour Deposition) coating and the existing colour options. The company decided to consult the experts in coatings at Sirris.**

## Testing samples and prototypes

Their stainless steel shower channels consist of a grating frame and a level grating. The grating frame can be dismantled, to ensure the sides and the short ends can be hung and coated together with the level grating. The sections where the components touch the rack during deposition in the PVD unit were selected to ensure these components are not visible once the grating has been installed. Sirris studied the PVD parameters to apply the colour coating on all visible components of the shower grating. Four colours were selected by mutual agreement.

Adherence, colour and uniformity were analysed over the full length of the test samples. Various test depositions were carried out to achieve the desired colour. Scrub tests were performed to test the sustainability of the colour coating when subjected to shower detergents, for example. After optimizing the parameters, prototype shower gratings were coated so Group Nivelles could see the end result on their products.

## Proven wear resistance

Sirris was able to demonstrate that PVD technology can be used to apply high-quality a wear-resistant colour coating to shower gratings. Chemical resistance and washability tests on samples demonstrated that the PVD coatings are resistant to cleaning with a sponge and descaling agent. The tests also demonstrated that the descaling agent being left on the surfaces for too long could result in oxidation and stain formation. Appropriate post-treatment can resolve this issue.

Group Nivelles has already presented the prototypes at a number of trade fairs.

## Authors



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