

## Turnaround in exterior cleaning

# Proteins reduce costs

The exterior cleaning of locomotives, buses and commercial vehicles is seeing a changing trend emerging for sustainable and highly efficient yet cost-effective processes. Under the brand name of "LoClean", Reinwerk Solutions, specialist in the exterior cleaning of vehicles and member of the rail vehicle cleaning working party, is preparing the way for this turnaround by means of innovative surfactants and functional proteins that have a long-lasting effect. As a result of this mildly alkaline cleaning system, costly wastewater treatment is rendered a thing of the past.



*Exterior appearance: three days after cleaning, all surfaces gleaming.*

Reinwerk Solutions has been working with Gelita AG, the world market leader for collagen proteins, preparing the way for a sea change. The "Easy-to-Clean" process developed by both companies relies on a range of environmentally friendly, high quality cleaners. Under the brand name of LoClean, these products are used by a number of train operators at home and abroad, including Deutsche Bahn, Österreichische Bundesbahnen, Rhein-Neckar-Verkehr GmbH, Nord-Ostsee-Bahn and others. The benefits of the new product: Fleet appearance is sustainably optimized, whilst bringing considerable savings potential for operators as a result of efficient cleaning and extending periods between cleaning.

Furthermore, with the biodegradability of LoClean products being so good, there is no need for costly and time-consuming wastewater treatment. The effectiveness of the patent-pending cleaning systems developed jointly with Gelita has already been proven in a number of field tests.

LoClean products work by means of an innovative combination of environmentally friendly surfactants and functional proteins, falling under the brand name of Novotec, which are also used in other sectors of industry. Their mildly alkaline cleaning power makes them extremely gentle and highly efficient in loosening any kind of dirt from the vehicle exterior. The specially developed proteins form an invisible integrated protective

film on the paint surface that withstands all kinds of weather, including harsh sunlight. This microscopically thin film smooths rough surfaces, allowing the paintwork to shine; the cleaned vehicles look like new. The protein-rich protective film also lends the exterior surface hydrophilic, that is to say, water-repellent, properties, proven to last up to three or four months. This renders the surface largely dirt-repellent - dirt can no longer penetrate the paintwork; instead, it floats on the protective film. This makes washing procedures much easier and has a significant self-cleaning effect: Rain or snow, ensure that dirt is simply washed away from the paintwork, particularly on areas of the vehicle that are difficult to access, such as roofs or gangway connections. This self-cleaning also means that the period of time between cleans is significantly lengthened. The protective film is renewed with each washing process, without creating any unwanted coating build-up. Expensive and labor-intensive deep cleaning is no longer required with regular use of LoClean products.



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PHOTOS: Reinwerk Solutions