



Hanover Messe, April 2011

### GEOMET<sup>®</sup> zinc flake technology opens new horizons for corrosion protection

Large R&D resources in NOF Metal Coatings Europe (previously Dacral) have been allocated in the recent years to the development of the range of GEOMET<sup>®</sup> applications. These developments open new possibilities of industrial applications in the field of protection against corrosion. Examples are high performing black coatings and coatings lasting the required life on chassis components. In the same time, R&D succeeded in developing production routes for the GEOMET<sup>®</sup> chemicals, that allow the VOC content of these water-based products to be reduced substantially.

#### High performing black coatings

Black corrosion protective coatings for threaded parts and other metal components are requested for design reasons by the automotive industry as well as in other industrial fields. NOF METAL COATINGS GROUP, a specialist in thin corrosion protective coating materials, offers two families of black coatings:

- GEOBLACK<sup>®</sup> ML and GEOBLACK<sup>®</sup> 500M obtained by addition to the GEOMET<sup>®</sup> basecoat a PLUS<sup>®</sup> Black topcoat
- GEOBLACK<sup>®</sup> KT, a new development with basecoat GEOMET<sup>®</sup> and topcoat GEOKOTE<sup>®</sup> Black. This topcoat ensures a high resistance against all chemicals including strong acids and solvents.



All black coatings are chromium-free, water-based, and offer a high corrosion resistance: 1000 hours NSS (Neutral Salt Spray Test) without red rust (Fe corrosion) or white rust (Zn corrosion). Outdoor weathering tests and vehicle tests have shown a corrosion resistance performance that matches the current expectations for chassis parts in the automotive industry.



## Life-resistant coatings for chassis components

In order to obtain a life lasting zinc-based coating on chassis components in the automotive industry, it is necessary to apply a sufficient thickness of coating material. Depending on the application, a range of 15  $\mu\text{m}$  to 30  $\mu\text{m}$  will give the appropriate protection. As the usual thickness of GEOMET<sup>®</sup> for bulk parts is 6 to 10  $\mu\text{m}$ , ways for increasing the thickness had to be studied.

A specific product, GEOMET<sup>®</sup> 900, has been developed, which enables the application of 15  $\mu\text{m}$  to 30  $\mu\text{m}$  in 1 or 2 coats. The product development has been completed together with the application process development. After alkaline degreasing and without phosphating, the components are dipped in the GEOMET<sup>®</sup> tank and draw out at a controlled speed. As the product is non-drip and non-sag, the drying and curing cycle can start immediately.

Practical trials over 2 years and with components of various types and shapes have proved the potential of this development. Fuel filler tubes for instance can be coated with 1 coat of GEOMET<sup>®</sup> 900 by this process, a black top-coat can be sprayed on the outside part for the colour requirement and for additional protection.



## Winner of European Responsible Care<sup>®</sup> Award 2010



Our product development has been awarded in 2010 with a major European chemical prize. It was the first time that a France-based company received the award with an innovative coating technology that offers health and environmental benefits in a more resource efficient, cost effective way. Judges praised the robust innovative nature of the award winning submission, especially highlighting that the high-tech coating combines "a very impressive decrease of VOC emissions with phasing out the harmful compound-hexavalent chromium - while turning a profit. For more information visit and watch Responsible Care<sup>®</sup> Award video at [www.cefic.org/Responsible-Care/Awards](http://www.cefic.org/Responsible-Care/Awards)

## About NOF METAL COATINGS EUROPE

With 35 years of experience, NOF METAL COATINGS EUROPE develops, produces and sells, by licence agreements, the zinc-flake technologies GEOMET<sup>®</sup> and DACROMET<sup>®</sup>.

Our coatings offer low-thickness and high-performing anticorrosion protection and are the leader in the Automotive and Truck industries, as well as in lots of other industrial sectors such as wind energy and railways. NOF METAL COATINGS EUROPE is the European subsidiary of NOF METAL COATINGS GROUP, the anticorrosion division of the Japanese chemical group NOF CORPORATION, who invented the zinc-flake technology. An international licensee's network with more than 450 application lines supplies our coatings worldwide. More information at: [www.nofmetalcoatings.com](http://www.nofmetalcoatings.com)

### Press contact in Europe



Franck Raynaud (Communication)  
[franck-raynaud@nofmetalcoatings.com](mailto:franck-raynaud@nofmetalcoatings.com)  
Tel.: + 33 (0)3 44 64 63 77

2/2



NOF METAL COATINGS EUROPE S.A. 120, rue Galilée – 60315 CREIL Cedex/France – Tel.: +33 3 44 64 63 62  
Fax: +33 3 44 64 63 40 - E-mail: [infofr@nofmetalcoatings.com](mailto:infofr@nofmetalcoatings.com) – Internet : [www.nofmetalcoatings.com](http://www.nofmetalcoatings.com)  
S.A. au capital de €3 000 000 – SIREN 305 333 668 RCS Senlis – n°TVA: FR 43 305 333 668

