A BRAND OF BONOMI® INDUSTRIES

BONOMI INDUSTRIES SRL
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Società soggetta ad attività di direzione e coordinamento di HADRON S.R.L.

TECHNICAL DATA SHEET GEOMET® & DACROMET®			TDS0027
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DACROMET® http://www.dacromet.com/ is a water-based inorganic coating that provides corrosion protection for steel components. DACROMET® is the leading inorganic coating specified by automotive companies worldwide and is a proven coating system in many industries

GEOMET® http://www.geomet.net/ is made with an aqueous base and is composed of zinc and aluminium flakes in an inorganic binder. GEOMET® is chromium free (no hexavalent chromium nor trivalent chromium) and environment friendly. As for DACROMET®, the GEOMET® performances linked to corrosion protection and lubrication are particularly high.

PROTECTION PRINCIPLES

GEOMET® is a sacrificial coating ensuring protection of metallic surfaces thanks to:
Barrier protection - Overlapping zinc and aluminium flakes provide an excellent barrier between the steel substrate and the corrosive atmosphere.
Galvanic action - Zinc corrodes to protect the steel.
Passivation - Metal oxides slow down the corrosion reaction of zinc and steel to provide a greater corrosion protection than pure zinc.

RUB USE GEOMET® 321

GEOMET® 321 is a non-electrolytically applied thin-film coating of metallic grey colour for the corrosion protection of parts made from steel, cast iron, or other iron metals.
GEOMET® 321 is composed of zinc and aluminium flakes in an inorganic binder; it has been developed by DACRAL S.A., the producer of DACROMET® 320, as the chromium-free alternative.
The GEOMET® 321 coating is obtained by the application of an aqueous dispersion by cold immersion or spray and is therefore free of any risk of hydrogen embrittlement.

GEOMET® 321 / Grade A CHARACTERISTICS

Weight: > 24 g/m²
Thickness: A 6-8 µm
Salt spray test (ISO 9227): > 600 hours without red rust > 200 hours without white rust

PROPERTIES

1. NO HYDROGEN EMBRITTLEMENT: when surface pretreatment is done according to recommended techniques, the film non-electrolytic application doesn't induce hydrogen embrittlement. Therefore GEOMET® 321 is especially recommended for safety parts protection.
2. RESISTANCE TO AUTOMOTIVE FLUIDS: GEOMET® 321 is tested according to VDA 621-412 and provides a satisfactory resistance to standardised test fuel, diesel fuel, motor oil, organic solvents, cooling and brake fluid. The coating also resists to 24 hours immersion in brake fluid at 80 °C.
3. DUCTILITY: sufficient for elastic deformations of springs, clips…
4. ELECTRICAL CONDUCTIVITY: GEOMET® 321 has a sufficient conductivity for all applications.
5. HEAT RESISTANCE: GEOMET® 321 keeps its mechanical properties up to 300 °C, which is the temperature needed for binder formation. For applications above 300 °C, specific tests are necessary. Its resistance to salt spray test exposure isn't modified by prior exposition of the coated articles to 180°C for 100 hours.
6. PAINTABILITY: GEOMET® 321 may be covered by most organic coatings. Due to the laminar structure of the coating, the cross-hatched adhesion test is not adapted.
7. THROWING POWER: the application on parts by cold immersion allows the total covering of internal surfaces, for example screws with captive washers, clips, tubes.

MEC. BS 010832 - Registro Imprese di Brescia - COD. FISC. E P.IVA IT00300000171 - CAP.SOC. € 1.500.000 I.V

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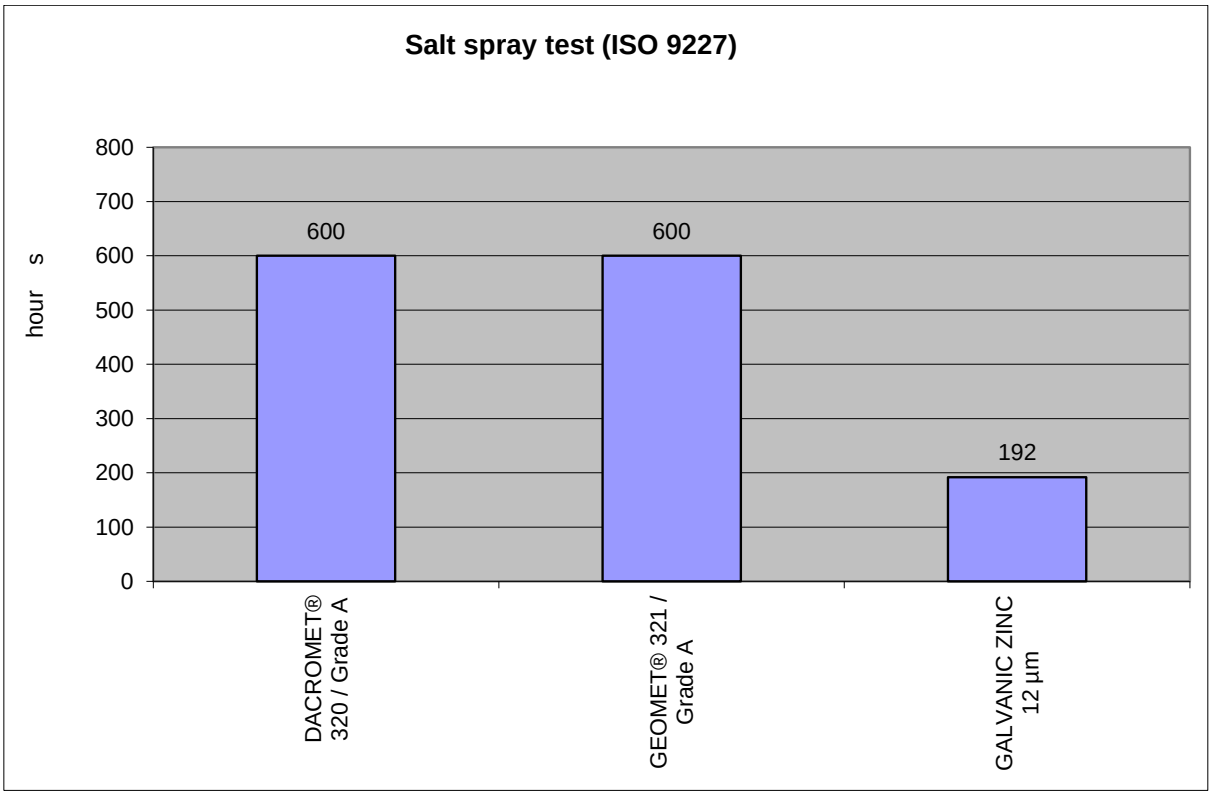
APPLICATION FIELD

GEOMET® 321 may be used in all industrial areas for the protection of ferrous metals with appropriately selected application techniques. It is especially suitable for fasteners. In the automotive and truck industry, OEM specifications must be respected. In industries with no specific standard, the BS EN ISO 10683 and EN 13858 can be used. The standards describe requirements for zinc-flake coatings. Related information can be found on the website www.dacral.com.



Information found on the website www.dacral.com and http://www.metal-coatings.com/ by RS

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