

DELTA-PROTEKT® VL 451 GZ

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DELTA-PROTEKT® VL 451 GZ is a topcoat for a zinc flake basecoat or for other metallic substrates. In a system e.g. made of basecoat + topcoat, it is responsible for multifunctional characteristics such as a defined coefficient of friction window, resistance to media, colouring etc. Additionally, it can enhance the corrosion protection properties of the basecoat. The DELTA-PROTEKT® VL 451 GZ is applied via a non-electrolytic application technique directly onto the substrate (part). The zinc flake technique is described in the standards DIN EN ISO 10683 and DIN EN ISO 13858. The application technology can vary according to the dimension and weight of the part; e.g. small parts are usually coated as dip-spin, bigger parts are usually spray coated. All Dörken MKS products have always been free of harmful heavy metals such as chromium VI. As there is no hydrogen involved during the application process, there is no danger of application-related hydrogen-induced stress corrosion cracking.

CATEGORY



VL-Topcoat

REQUIREMENTS

Corrosion resistance

- delays galvanic corrosion
- enhances the corrosion protection of the basecoat

Special features

- organic
- solvent-based
- integrated lubricant
- gaugeability

Weathering resistance

- fulfils requirements of artificial weathering and exposure to artificial radiation acc to DIN EN ISO 16474
- fulfils requirements of artificial weathering (fluorescent UV lamps and water) acc to DIN EN ISO 11507
- fulfils the requirements of natural outdoor exposure according to DIN EN ISO 12944-2

Defined coefficient of friction window

- $\mu_{tot} = 0,09-0,14$ (VDA 235-101 & DBL 9440)
- prevents stick-slip effects as according to VDA 235-203

Media resistance

- fulfils chemical resistance against operating fluids according to DIN EN ISO 2812

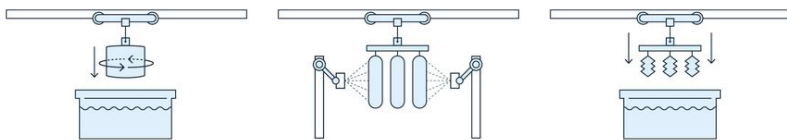
Resistance against

- Corrosion resistance
- Media resistance
- Weathering resistance
- Defined coefficient of friction window

Surface / Substrate

- zinc flake basecoat
- stainless steel
- zinc die cast
- aluminum die cast
- passivated zinc/zinc alloys
- Phosphat
- typical dry film thickness of 4-20 µm
- Even layer construction possible.
- The technical feasibility depends on pretreatment and individual characteristics of each material.

Application technology



dip-spin

spray

dip-drain

Legal conditions

- meets the EU End-of-Life Vehicle Directive 2000/53/EC
- meets the RoHS 2 guidelines (also known as EU Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment 2002/95/EC)
- meets the REACH requirements

Contact Person

- Thorsten Speck

SELECTION OF SUITABLE PARTS

Advised parts



Panels

Metrical threaded
bolts M2-M16

Stamped parts

Nuts

Suitable parts



Washers

Big parts

Metrical threaded
bolts >M16

Non metrical
threaded parts

Brake parts

SPECIFICATIONS

ASTM - F3393

ISO - ISO/EN 10683

ASTM - F3125