$Ref.: Technische Fiches \label{technische} TDS \ Zingaspray. EN$

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ZINGASPRAY

Zingaspray offers the film galvanising system ZINGA in an aerosol spray for easy small applications. ZINGA contains 96% Zinc in the dry film and provides cathodic protection to ferrous metals. Zingaspray is ideal for the repairing and touching-up of damaged or old hot-dipped, Zinganised or other zinc coated structures.

PHYSICAL DATA AND TECHNICAL INFORMATION

WET PRODUCT

Components	- Zinc powder - Aromatic hydrocarbons - Binder
Density (without propellant)	1,60 kg/dm³ (± 0,05 kg/dm³) at 20°C
Solid content (without propellant)	- 16,88% by volume (± 2%) - 59,49% by weight (± 2%)
Propellant	Dimethylether (DME)
Flash point	-41°C (~propellant)
VOC	668 g/L

DRY FILM

Colour	Grey
Gloss	Matt
Special features	 Good resistance to mechanical shocks, abrasion and erosion Very economical Efficient and solid Ideal for spot welding Contains 96% Zinc in the dry film
Temperature resistance	- Minimum -40°C - Maximum +120°C

PACKING

500 mL	Available. Spray can
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CONSERVATION

Shelf life	2 years in the original, unopened package.
Storage	Store vertically in a dry environment at temperatures between 5° C and $+35^{\circ}$ C (preferably at room temperature $\pm 18^{\circ}$ C)

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CONDITIONS

SURFACE PREPARATION

Surface preparation	- Zingaspray can be applied on ferro-metals and damaged zinc surfaces For optimal performance, the metal should first be degreased, preferably by steam-cleaning. Alternatively, the surface can be degreased using solvent (e.g. Zingasolv), but never use white spirit. - For optimal performance, clean to SA 2,5 (ISO 8501:2007). For non-critical (small) areas, cleaning to St 3 is sufficient.
Roughness	- Zingaspray should be applied on a metal substrate that has a roughness grade of fine to medium G (Rz 50 to 70 μm) according to the standard ISO 8503-2:2012. - This can be obtained by grit-blasting (with sharp particles) but not by shot-blasting (with spherical particles). Make sure that the surface is degreased before the grit-blasting . - This high degree of roughness is not needed when Zingaspray is applied on a hot-dip galvanisation or a metallisation layer, or when it is applied on top of an existing ZINGA layer. Make sure Zinc salts are removed from the surface to ensure a good electrochemical connection between the two layers. Old hot-dipped surfaces have adequate roughness, new hot-dipped surfaces require a sweep blast. - For small, non-critical areas, roughness can be obtained by using a steel wire brush.
Maximum time to application	Apply the ZINGA as soon as possible on the prepared metal substrate (max. 4 hours waiting time). If contamination occurs before coating, the surface must be cleaned again as described above.

ENVIRONMENTAL CONDITIONS DURING APPLICATION

Ambient temperature	- Minimum 5°C - Maximum 35°C
Relative humidity	- Maximum 90% - Do not apply on a damp or wet surface
Surface temperature	 - Minimum 3°C above the dew point. - No visual presence of water of ice - Maximum 60°C

APPLICATION INSTRUCTIONS

GENERAL

Shaking	Zingaspray must be shaken thoroughly before application. Shake the can vigorously for minimum 30 seconds after liberating the balls. Repeat this every time the can is not used for some time.
Application	Keep the spray between 10 and 20 cm away from the substrate and move in a continuous speed from left to right. Repeat with a spray application from top to bottom.

TECHNICAL DATA SHEET

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Cleaning	Cleaning of equipment Zingasolv.
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OTHER INFORMATION

COVERAGE AND CONSUMPTION

Theoretical coverage	For 40 µm DFT: 4,22 m²/L
Theoretical consumption	For 40 µm DFT: 0,24 L/m ²
Practical coverage and	Depends upon the roughness profile of the substrate and the application
consumption	method

DRYING PROCESS AND OVERCOATING

Drying process	ZINGA dries by evaporation of the solvent. The drying process is influenced by the total WFT, the ambient air (humidity and temperature) and the steel surface temperatures.
Drying time	For 40 µm DFT at 20°C in a well-ventilated environment: » Touch dry: 15 minutes » Dry to handle: 1 hours » Fully cured: 48 hours
Overcoating with a new layer of ZINGA	Always apply 2 layers, apply the second coat 1 hour after touch dry. Maximum overcoat time depends on environmental conditions. If zinc salts have formed, they should first be removed.
Reliquidisation	Each new layer of ZINGA reliquidises the former ZINGA layer so that both layers form one homogeneous layer. Therefore, Zinganised structures can be reloaded with ZINGA (Zingaspray) after the Zinc layer has depleted due to cathodic protection. For surface preparation on old Zinganised surfaces, contact a Zingametall representative or see document 'ZINGA on (old) HDG'.



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Overcoating with a compatible paint

ZINGA can be overcoated with a wide range of compatible paints. It is however, just like all Zinc rich systems sensitive to influence of solvents. In order to avoid blistering, pinholes and other defects (which will negatively affect the performance of the ZINGA layer), it is advised to apply any topcoat with a mist/full coat technique. First, a thin continuous layer is applied which gives air bubbles easy passage through the film. The first mist coat also provides a barrier for aggressive solvents in the topcoat.

Mist coat:

- Application at least 6 hours after ZINGA is touch-dry.
- 25 to 30 μm DFT (continuous layer).
- Normal dilution according to the technical data sheet of topcoat.

Full coat:

- Application at least 2 hours after the mist coat is touch-dry.
- Specified layer thickness minus 25 to 30 µm DFT (of mist coat).
- Normal dilution according to the technical data sheet.

To avoid any problems with application of topcoats, **we advise the use of a sealer**. Zingametall offers two compatible sealers which have been tested according ISO 12944:

Zingalufer (PU sealer) and Zingaceram HS (EP sealer).

RECOMMENDED SYSTEM

Unique system	Zingaspray is advised for touch-up (HDG, metallisation or on ZINGA) and
	application on small areas only.
	It should be applied in two layers.

For more specific and detailed recommendations concerning the application of Zingaspray, please contact the Zingametall representative.

For detailed information about the health and safety hazards and precautions for use, refer to the Zingaspray safety data sheet.

The information on this sheet is merely indicative and is given to the best of our knowledge based on practical experience and testing. The conditions or methods of handling, storage, use or disposal of the product cannot be controlled by us and are therefore outside our responsibility. For these and other reasons we retain no liability in case of loss, damage or costs that are caused by or that are linked in any way to the handling, storage, use or disposal of the product. Any claim concerning deficiencies must be made within 3 months upon reception of the goods quoting the relevant batch number. We retain the right to change the formula if properties of the raw material are changed. This data sheet replaces all former specimens.