MONOPOX® MICRO-ZINK

epoxy

A two components epoxy anti-rust zinc dust paint which guarantees a lasting protection of blasted steel.

- Excellent weldable if applied in a dry film thickness of less than 25 µm.
- After a short time recoatable with epoxy, polyurethane, vinyl and chlorinated rubber paints.
- Use Monopox Metal sealer as an intermediate coat, if recoated with alkyd enamel is necessary.
- The product complies to SSPC Paint 20, Level 1 with respect to zinc content.

Application as anti-rust primer for steel structures under industrial, maritime and nuclear conditions.
- To prevent zinc-salts it is advisable tot apply a sealer directly after drying.

Product information

Finish	Mat
Colour	Redgrey
Mass density	approx. 2.6 kg/L (mixed product)
Zinc	90 weight % dry film
Solids content by volume	approx. 55 volume %
VOC	approx. 375 gr./L (volatile organic compound)
Recommended film thickness	25-50 µm d.f.t. per layer 45-90 µm w.f.t. per layer (undiluted)
Theoretical spreading rate	At 25 µm d.f.t. 22.0 m²/L At 40 µm d.f.t. 13.8 m²/L
Practical spreading rate	Depending on several factors like shape of object, profile of surface, method of application, application circumstances and experience. A few guiding principles are: Brush/roller 85-90% of the theoretical spreading rate Spraying 50-70% of the theoretical spreading rate
Flashpoint ISO 1523	Base 23 °C Hardener 2V8 30 °C Thinner FGM 631 26 °C Thinner WTD 107 14 °C
Dry temperature resistance	180 °C
Durability	At least 6 months, provided that it has been stored in closed original packing at a dry and cool spot.

Drying times

For d.f.t. up to 60 µm

	30 °C	20 °C	5-10 °C
Dust dry	20 minutes	½ hour	1 hour
Manageable	1 hour	2 hours	4 hours
Recoatable:			
Minimum interval	2 hours	3 hours	6 hours
Maximum interval *	7 days	14 days	1 month

*) This period can be extended by cleaning and sandig the coating prior to application of the next layer
Because zinc-dust paints can develop zinc-salts on the surface, we recommend to recoat as soon as possible. Before recoating, remove possible pollution and zinc-salts.

Application instructions

Mixing ratio	Volume:	Base – hardener 2V8	83:17
	Weight:	Base – hardener 2V8	94:6

Mixing instructions

Base and hardener should be mixed and applied at temperatures above 10°C.
At lower temperatures extra thinner is needed which can effect the drying/curing properties and the sag resistance.
The base and mixed product must be mixed carefully mechanically.
Pay attention to the side and the bottom of the can.

The mixing ratio is very limited, in particular when the packaging will be mixed partly.

Induction time

At 20°C not necessary
At 10°C at least 10 minutes

Pot life after mixing

10 litre packing: approx. 10 hours at 20°C
approx. 5 hours at 40°C

Optimal application circumstances

Temperature : 15 – 25°C
Humidity : 40 – 75%

Technical and esthetical properties can change when the product has been applied under different conditions.

Usage information

	Airless-spray	Airspray
Type of thinner	FGM 631 / WTD 107	FGM 631 / WTD 107
Recommended thinner (depending on application and application)	5 – 20 vol. %	10 – 25 vol. %
Nozzle orifice	0.43 – 0.48 mm 0.017 – 0.019 inch	2.0 – 2.5 mm
Nozzle pressure	150 – 170 bar	3 – 5 bar
Typical d.f.t.	50 µm	40 µm
Cleaning of equipment	Thinner FGM 631 / WTD 107	

Surface conditions

Obtaining the highest possible quality of the applied product it is very important that the substrate is prepared carefully and correctly. The required surface roughness and a dry and clean substrate are the main parameters. Prior to application of the paint , the substrate must be examined according to the ISO standard 8504:2000

Steel

New steel:
Blasting according to the ISO standard 8501-1:1988 Sa 2½.
Roughness profile Ra 10-12 µm Rz 50-60 µm.
Surface must be clean and dry.
Apply Monopox Micro-Zink on the blasted steel.

Repair and maintenance:
Clean the surface carefully with a suitable solvent containing cleaning preparation, or a water-soluble emulsifier to remove oil, grease and dirt.
Remove salts and other water-soluble impurity by spraying with clean tap-water under high pressure.
Remove rust a.o. by (water)blasting Sa 2½ or derust mechanical until St. 2-3.
Touch up on a clean and dry surface with Monopox SF-HB Primer.

- Mechanical or hand derusting gives less quality than (water)blasting and will result in lower durability of the applied paint system.

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Product Characteristics

No coating work shall be carried out when the temperature of the surface is less than 3°C above dewpoint and when the substrate temperature is below 5°C.

Due to the presence of solvents, applying this product in confined spaces, adequate ventilation has to be ensured.

At low temperature and under humid conditions, amine blushing can occur, which can effect the intercoat adhesion negatively. Prior to the application of the next layer, the previous layer must be checked for this phenomena.

This coating product is based on epoxy technology. It is recommendable that it should be overcoated with a durable finish.

Maximum film build in one coat is best attained by airless spray. Application by other techniques, it may be necessary to apply multiple coats in order to achieve the total specified dry film thickness.

Safety description

See safety data sheet

Ventilation rules

Minimum required quantity of air to comply with:

	MAC	10 % LEL
Monopox Micro-Zink	1855 m³/L	75 m³/L
Thinner FGM 631	3995 m³/L	160 m³/L
Thinner WTD 107	4085 m³/L	168 m³/L

MAC = Maximum Accepted Concentration
LEL = Lower Explosion Limit
Also consult the safety information sheets.

Pretreatment / Labelling / Technical Terms (downloadable from www.zandleven.com)

A 1 Labeling of paint products in the European Community
A 2 Physical data
A 4 General guidelines for steel preservation
A 6 Pretreatment of construction steel
- material safety data sheet
- information hardeners and thinners
- sales & delivery conditions