MONOPOX® FP Primer

epoxy

A two components high build epoxy primer with zinc phosphate, for intumescent coatings.

- High-grade anti-corrosive, free from lead and chrome.
- Application and hardening is possible at high relative humidity up to 90%.
- After hardening excellent mechanical resistance and elasticity.

Application as anti-rust primer with improved adhesion properties for intumescent coating systems on steel constructions in industrial environment.
- When exposed direct to sunlight, coating will chalk.

Product information

Finish	Semi-gloss
Colour	Limited range
Mass density	approx. 1.4 kg/L (mixed product)
Solids content by volume	approx. 64 volume % (mixed product)
VOC	approx. 315 gr./L (volatile organic compound)
Recommended film thickness	70-100 µm d.f.t. per layer 110-156 µm w.f.t. per layer (undiluted)
Theoretical spreading rate	At 70 µm d.f.t. 9.1 m²/L At 100 µm d.f.t. 6.4 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 2V4 30 °C Thinner FGM 631 26 °C Thinner WTD 107 14 °C
Dry temperature resistance	120 °C
Durability	At least 12 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 100 µm	30 °C	20 °C	10 °C	5 °C
Dust dry	¼ hour	½ hour	1 hour	1½ hours
Transportable	8 hours	12 hours	24 hours	36 hours
Complete hardening	3 days	6 days	12 days	28 days
Recoatable:				
Minimum interval	2 hours	3 hours	8 hours	16 hours
Maximum interval *	7 days	14 days	1 month	3 months

*) This period can be extended by sanding and cleaning the surface.

Film thickness, ventilation, temperature and relative humidity are of great influence on the drying times.

Application instructions

Mixing ratio	Volume:	Base – hardener 2V4	80:20
	Weight:	Base – hardener 2V4	86:14

Mixing instructions

Base and hardener should be mixed and applied at temperatures above 10°C.
At lower temperatures extra thinner is needed, which gives a slighter resistance against sagging and which will delay hardening.
The components should be mixed homogeneously,
with a mechanical blender. Pay attention to the side and bottom of the can.

Induction time

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

Pot life after mixing

20 litre packing:	approx.	16 hours at 10°C
	approx.	8 hours at 20°C
	approx.	5 hours at 30°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	Brush/roller
Type of thinner	FGM 631 / WTD 107	FGM 631 / WTD 107	FGM 631 / WTD 107
Recommended thinner (depending on application and equipment)	5 – 10 vol. %	10 – 15 vol. %	0 – 5 vol. %
Nozzle orifice	0.41 – 0.46 mm 0.016 – 0.018 inch	2.0 – 2.5 mm	
Nozzle pressure	150 – 180 bar	3 – 5 bar	
Maximum attainable d.f.t.	80-100 µm	70-100 µm	60-80 µm
Cleaning of tools	Thinner FGM 631 / WTD 107		

Surface conditions

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.

Repair and maintenance:
Clean the surface thoroughly with suitable cleaning preparation or by steam cleaning.

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.
Apply the recommended paint system on a clean surface.

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

Hot-dip galvanised steel

Sweep blast with a fine, non-metallic blasting media, until a level roughened surface is obtained, or degrease the surface and after that phosphatize or chromatize (according to the instructions of the manufacturer)

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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.

Discoloration or loss of gloss or other surface defects, can occur during drying and curing by condensation and or early water spotting. In particular bright and ''full'' colours.

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 FP Primer	1895 m³/L	70 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 / Labeling / Technical Terms (downloadable from www.zandleven.com)

A 1 Labeling of paint products in the European Community
A 2 Physical data
A 3 Persistency list for Monopox HB systems
A 4 General guidelines for steelpreservation
A 6 Pretreatment of construction steel
- material safety data sheet
- information hardeners and thinners
- surcharge colour category
- sales & delivery condition