



# zandleven coatings

## MONOPOX<sup>®</sup> HB IJZERGLIMMER

epoxy

A two components high build epoxycoating pigmented with micaceous iron oxide (mio) and inert extenders.

- Resistant against water, polluted water, seawater, alkaline and weak acid solutions, mineral oil, aliphatic and aromatic solvents.
- Can be applied in thick layers.
- After hardening excellent chemical and mechanical resistance.
- Can be used as intermediate and/or finish layer for coating systems on steel and concrete in industrial, maritime and nuclear environment.
- Can even be recoated after long outdoor exposure with two components and conventional paint systems.
- When exposed direct to sunlight, coating will chalk.

### Product information

Finish	Semi-gloss metallic lustre
Colour	8 colours according to mio colour card
Mass density	approx. 1.5 kg/L (mixed product, depending on colour)
Solids content by volume	approx. 58 volume % (mixed product, depending on colour)
VOC	approx. 350 gr./L (volatile organic compound)
Recommended film thickness	70- 120 µm d.f.t. per layer 120-210 µm w.f.t. per layer (undiluted)
Theoretical spreading rate	At 70 µm d.f.t. 8.3 m <sup>2</sup> /L At 120 µm d.f.t. 4.8 m <sup>2</sup> /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 120 µm

Dust dry

Transportable

Complete hardening

Recoatable:

Minimum interval

Maximum interval \*

30 °C	20 °C	10 °C	5 °C
½ hour	1 hour	2 hours	3 hours
8 hours	16 hours	24 hours	36 hours
3 days	7 days	12 days	28 days
4 hours	6 hours	16 hours	32 hours
7 days	14 days	1 month	3 months

\*) This period can be extended by cleaning and sanding the coating prior to application of the next layer

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



## Application instructions

Mixing ratio	Volume: Base – hardener 2V4 81:19 Weight: Base – hardener 2V4 88:12
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 Relative 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)	0 – 15 vol. %	5 – 20 vol. %	0 – 5 vol. %
Nozzle orifice	0.38 – 0.48 mm 0.015 – 0.021 inch	2.0 – 2.5 mm	
Nozzle pressure	150 – 200 bar	3 – 5 bar	
Typical d.f.t.	80-120 µm	70-100 µm	60-80 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:

Monopox SF-HB, Monopox ZF-Universal, Monopox Metalcoat ZL 70, Monopox micro-zink or Monopox LG micro-zink can be used as a primer.

#### Repair and maintenance:

Clean the surface thoroughly with a 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.



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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 HB IJzerglimmer	1700 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](http://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

These data have been drawn up to the best of our knowledge and were correct at the date of issue. However we cannot accept full responsibility, because de choice of products and circumstances during elaboration of the systems fall outside our judgement. This documentation sheet will not automatically be replaced in case of modification.  
The English language text is a translation. In case of doubt the Dutch language original text has to be consulted as the authoritative text.

