zandleven coatings

POLYFINISH®HS-MIO

polyurethane

A two components high solid polyurethane coating pigmented with micaceous iron oxide.

- Excellent durability and colour stability.
- Low-solvent content in accordance with EG regulations of 2007.
- To apply in thick layers. Hardening at low temperatures down to –5°C.
- After hardening excellent chemical and mechanical resistance.

Application as chemical resistant, impact resistant for coating systems on steel in industrial and maritime environment.

Product information

Finish	Semi-gloss/ metal-gloss
Colour	8 colours according to the micaceous iron oxide colour card
Mass density	approx. 1.45 kg/L (mixed product)
Solids content by volume	ca. 67 volume % (mixed product)
VOC	approx. 290 gr/L (volatile organic compound)
Recommended film thickness	80-140 micrometer d.f.t. per layer
	120-200 micrometer w.f.t. per layer (undiluted)
Theoretical spreading rate	At 80 micrometer d.f.t. 8.4 m²/L
	At 120 micrometer d.f.t. 5,6 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 29°C
	Hardener 2V6 38°C
	Thinner JFG 253 28°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 140 µm	30°C	20°C	10°C	5°C
Dust dry	½ hour	1 hour	3 hours	4 hours
Transportable	10 hours	16 hours	24 hours	48 hours
Complete hardening	4 days	7 days	10 days	10 days
Recoatable:				
Minimum interval	8 hours	12 hours	24 hours	40 hours
Maximum interval*	10 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 2V6	83:17
	Weight:	Base – hardener 2V6	86½:13½

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
At 5°C at least 20 minutes

Pot life after mixing

20 litre packing: approx. 6 hours at 10°C
approx. 3 hours at 20°C
approx. 2 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	JFG 253	JFG 253	JFG 253
Recommended thinner (depending on application and equipment)	0 – 15 vol. %	5 – 15 vol. %	0 – 5 vol. %
Nozzle orifice	0.28 – 0.33 mm 0.013 – 0.017 inch	1.5 – 2.0 mm	
Nozzle pressure	130 – 200 bar	3 – 4 bar	
Maximum attainable d.f.t.	70-100 µm	60-100 µm	50-80 µm
Cleaning of tools	Thinner JFG 253		

Surface conditions

Steel

New steel:
As primer Acraton HS-U, Monopox SF-HB, Monopox ZF universal, Monopox micro-zinc, Monopox LG micro-zinc, Monopox Metalcoat ZL70 or Monopox Metalcoat ZL 80 can be applied.

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 advised 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 dew point 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.

Condensation occurring during or immediately after application may result in a matt and an inferior film.

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.

Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure.

A completely clean surface is mandatory to ensure intercoat adhesion, especially at long recoating intervals. Any dirt, oil,and grease has to be removed, e.g. with suitable detergent. Salt to be removed by fresh water hosing.

Safety description

See safety data sheet

Ventilation rules

Minimum required quantity of air to comply with:		
	MAC	10 % LEL
Polyfinish HS-MIO	1110 m³/L	59 m³/L
Thinner JFG 253	3680 m³/L	149 m³/L

MAC = Maximum Acceptable Concentration
LEL = Lower Explosion Limit
Also consult the security 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 4 General guidelines for steelpreservation
A 5 General guidelines for the application of Acraton plastics
A 6 Pretreatment of construction steel