POLYFINISH® Hybride HS ALUMINIUM

polysiloxane

A two components high solid epoxy-silicone hybrid coating with the synergy of a high-quality epoxy and polyurethane.

- The product is free of isocyanates.
- Good weather resistance and colour lightfastness
- Slight dirt attachment and easy to rinse. Easily applicable in thick layers
- Low-solvent content in accordance with EG regulations of 2007.
- After curing excellent mechanical resistance and elasticity.

Application A long-lasting high-quality topcoat wide on (zinc-rich epoxy primer) pre-treated steel, (epoxy-sealer) pre-treated hot dip galvanised steel, environment C1 to C5 according ISO 12944.

Product information

Finish	Glossy
Colour	Aluminium
Mass density	approx. 1.1 kg/L (mixed product, depending on colour)
Solids content by volume	approx. 95 volume % (mixed product, depending on colour)
VOC	approx. 50 gr./L (volatile organic compound)
Recommended film thickness	100 -150 µm d.f.t. per layer 105 -160 µm w.f.t. per layer (undiluted)
Theoretical spreading rate	At 100 µm d.f.t. 9.5 m²/L At 150 µm d.f.t. 6.3 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 35°C Hardener 2V57 >90°C Spray thinner KK 55 27°C
Substrate temperature	<120°C provided under low humid atmospheric conditions
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 150 µm

	30°C	20°C	10°C
Dust dry	1½ hour	2½ hour	5 hour
Transportable	10 hours	16 hours	24 hours
Complete hardening	4 days	7 days	10 days
Recoatable:			
Minimum interval	3 hours	6 hours	10 hours
Maximum interval*	10 days	14 days	1 month

* This period can be extended by cleaning, using thinner KK55, 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 2V57	83:17
	Weight:	Base – hardener 2V57	80:20

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. 5 hours at 10°C
approx. 3 hours at 20°C
approx. 2 hours at 30°C

It is recommended to always use fresh mixed product if the work is continued after a (longer) break.

Optimal application circumstances

Temperature : 15-25°C
Humidity : 40-80%

A lower air humidity will slow down the curing, while a higher air humidity will promote the curing.
Condensation that occurs during or immediately after application may result in a mat and inferior finish.

Usage information

	Airless-spray	Airspray	Brush/roller
Type of thinner	KK 55	KK 55	KK 55
Recommended thinner (depending on application and equipment)	0 – 5 vol. %	0 – 5 vol. %	0 – 1 vol. %
Nozzle orifice	0.28 – 0.33 mm 0.011 – 0.017 inch	1.5 – 2.0 mm	
Nozzle pressure	130 – 200 bar	3 – 4 bar	
Maximum attainable d.f.t.	200 µm	150 µm	80 µm
Cleaning of tools	Thinner FGM 631		

Surface conditions

Steel

New steel:
As primer Monopox Micro-zink, Monopox LG micro-zink, Monopox SF-HB, Monopox ZF-Universal, Monopox Premium or Monopox Metalsealer 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 recommended paint system on a clean surface.

- Mechanical or hand derusting results in less quality than (water)blasting and will affect the performance 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.

Colours/Colour stability:
Certain lead-free red and yellow colours may discolour when exposed to chlorine-containing atmosphere.
To obtain full opacity, an extra coat may be necessary, especially for certain lead-free colours in red,orange, yellow and green. Slight discolouration may occur at service temperatures above: 120°C.

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.

Due to the moisture sensitivity of the product, there is a risk that the contents of a partially used container (in particular the hardener) will react with moisture from the atmosphere. This can negatively affect the quality of the final layer.

In case this product has to be recoated with the same product, within the maximum interval, the surface has to be cleaned with thinner KK 55, prior to application of the next layer.

Safety description

Consult safety data sheet

Ventilation rules

Minimum required quantity of air to comply with:		
	MAC	10 % LEL
Polyfinish Hybride HS Alu	26 m³/L	3 m³/L
Thinner KK 55	1214 m³/L	141 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 4 General guidelines for steelpreservation
A 6 Pretreatment of construction steel
- material safety data sheet
- information hardeners and thinners
- sales & delivery condition