



# zandleven coatings

## POLYFINISH® HS Ceramic

polyurethane

A two components high solid polyurethane coating pigmented with ceramic extenders. This ceramic modified coating provides an excellent protection with high durability.

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

**Application** as chemical resistant, impact resistant coating for with polyurethane- or epoxy primer pre-treated steel, galvanised steel and aluminium.

### Product information

Finish	Semi-gloss (55 GU, depending on colour)
Colour	RAL colours
Mass density	approx. 1.37 kg/L (mixed product, depending on colour)
Solids content by volume	approx. 67 volume % (mixed product, depending on colour)
VOC	approx. 270 gr./L (volatile organic compound)
Recommended film thickness	70 -120 µm d.f.t. per layer 100 -180 µm w.f.t. per layer (undiluted)
Theoretical spreading rate	At 70 µm d.f.t. 9.6 m²/L At 100 µm d.f.t. 6.7 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 100 µm

Dust dry

Transportable

Complete hardening

Recoatable:

Minimum interval

Maximum interval

30 °C	20 °C	10 °C	5 °C
½ hour	1 hour	3 hour	4 hours
10 hours	16 hours	24 hours	48 hours
4 days	7 days	10 days	10 days
8 hours	12 hours	24 hours	40 hours
Unlimited, provided that the surface is clean and dry. Film thickness, ventilation, temperature and relative humidity are of great influence on the drying times.			



## Application instructions

Mixing ratio	Volume: Base – hardener 2V6 82,0:18,0 Weight: Base – hardener 2V6 86,0:14,0
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.
Induction time	At 20 °C not necessary At 10 °C at least 10 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
Application conditions	<p>During application and curing the temperature should be above 5 °C, to obtain maximum resistance against chemical and mechanical influences.</p> <p>Application and hardening at lower temperatures (down to 0 °C) is possible, the hardening though will then take considerable more time and complete resistance will be achieved much later.</p> <p>The surface should remain dry and the temperature of the surface should be at least 3 °C above dew point.</p> <p>During application and hardening in closed and small areas it is necessary to refresh the air continually to remove the solvent vapours, this because of curing, health and safety.</p>

## Usage information

Type of thinner	Airless-spray	Airspray	Brush/roller
Recommended thinner (depending on application and equipment)	JFG 253	JFG 253	JFG 253
Nozzle orifice	0 – 15 vol. %	5 – 20 vol. %	0 – 5 vol. %
Nozzle pressure	0.28 – 0.33 mm 0.011 – 0.017 inch	1.5 – 2.0 mm	
Maximum attainable d.f.t.	130 – 200 bar	3 – 4 bar	
Cleaning of tools	70-100 µm	60-100 µm	50-80 µm
	Thinner JFG 253		

## Surface conditions

Steel	<p>New steel: As primer Acraton HS-U, Acraton HS-U/MIO, Monopox Metalcoat ZL 70, Monopox Metalcoat ZL 80, Monopox SF-HB, Monopox Premium, Monopox ZF-Universal or Acraton HS Premium can be applied.</p> <p>Repair and maintenance: Clean the surface thoroughly with a suitable cleaning preparation or by steam cleaning.</p> <p>Remove salts and other water-soluble impurity by spraying with clean tap-water under high pressure.</p> <p>Remove rust a.o. by (water)blasting Sa 2½ or derust mechanical until St. 2-3.</p> <p>Apply the recommended paint system on a clean surface.</p> <ul style="list-style-type: none"><li>Mechanical or hand derusting gives less quality than (water)blasting and will result in less protection of the applied paint system.</li></ul>
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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.

### Safety description

See safety data sheet

### Ventilation rules

Minimum required quantity of air to comply with:

	MAC	10 % LEL
Polyfinish HS Ceramic	1110 m³/L	59 m³/L
Thinner JFG 253	3680 m³/L	149 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](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 steel preservation
- A 5 General guidelines for the application of Acraton plastics
- 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 the 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.

