POLYFINISH® DTM HS 70-50 polyurethane

A two components, high solid polyurethane primer/coating with good weather resistance and colour retention. Contains modified zinc phosphate.

- Slight dirt attachment and easy to rinse. Easily applicable in thick layers.
- Low-solvent content in accordance with EG regulations of 2007.
- Easy to apply in think layers directly on prepared steel.
- After curing excellent mechanical resistance and elasticity.

Application

May be specified as one layer system applied direct to blasted steel. Applicable for C1 / C2 according to the ISO standard 12944.

Product information

Finish	Semi-gloss (50 GU, depending on colour)
Colour	RAL colours
Mass density	approx. 1.35 kg/L (mixed product, depending on colour)
Solids content by volume	approx. 70 volume % (mixed product, depending on colour)
VOC	approx. 290 gr./L (volatile organic compound)
Recommended film thickness	80 -120 µm d.f.t. per layer 114 -171 µm w.f.t. per layer (undiluted)
Theoretical spreading rate	At 80 µm d.f.t. 8.8 m²/L At 120 µm d.f.t. 5.8 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 2V49 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	30°C	20°C	10°C	5°C
Dust dry	½ hour	1 hour	3 hour	4 hours
Transportable	10 hours	16 hours	24 hours	48 hours
Complete hardening	4 days	7 days	14 days	28 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 2V49	82,5:17,5
	Weight:	Base – hardener 2V49	86:14

Mixing instructions

Base and hardener should be mixed and applied at temperatures above 10°C.

Hardener 2V49 is sensitive to moisture. Store in a dry place and keep the can tightly closed until use. Even small traces of water in the mixed paint will reduce the pot life and result in film defects

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.	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 – 20 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	
Typical d.f.t.	120 µm	100 µm	80 µm
Cleaning of equipment	Thinner JFG 253		

Surface conditions

Steel

New steel:
Blasted steel substrate, cleanliness: Sa 2½ acc. ISO 8501-1:2007

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 lower durability 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.

Safety description
See safety data sheet

Ventilation rules

Minimum required quantity of air to comply with:

	MAC	10 % LEL
Polyfinish DTM HS 70-50	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)

A 1 Labeling of paint products in the European Community
A 2 Physical data
A 4 General guidelines for steel preservation
A 6 Pretreatment of construction steel