POLYFINISH® Primer 50

polyurethane

A two components high build, fast drying polyurethane primer.

- Good adhesion on blasted steel.
- Quick recoatable.
- Applicable in thick layers.
- After curing excellent mechanical resistance and elasticity.

Applicable as part of a coating system in a environment to class C3 according ISO 12944.

Product information

Finish	Semi-gloss (50 GU, depending on colour)
Colour	Limited colours
Mass density	approx. 1.20 kg/L (mixed product, depending on colour)
Solids content by volume	ca. 50 volume % (mixed product, depending on colour)
VOC	approx. 420 gr./L (volatile organic compound)
Recommended film thickness	60 - 80 µm d.f.t. per layer 120-160 µm w.f.t. per layer (undiluted)
Theoretical spreading rate	At 60 µm d.f.t. 8.3 m²/L At 80 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 29 °C Hardener 2V1 30 °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 80 µm	30 °C	20 °C	10 °C	5 °C
Dust dry	½ hour	1 hour	1½ hour	2 hours
Transportable	8 hours	16 hours	24 hours	30 hours
Complete hardening	2 days	4 days	7 days	10 days
Recoatable:				
Minimum interval	5 hours	8 hours	16 hours	24 hours
Maximum interval *	10 days	21 days	2 months	4 months

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

Forced drying after approx. 30 minutes evaporation	60 °C	80 °C
	2 hours	1 hour

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

Application instructions

Mixing ratio	Volume:	Base – hardener 2V1	90:10
	Weight:	Base – hardener 2V1	92:8
	Volume:	Base – hardener 2V6	93,3 : 6,7 (14 : 1)
	Weight:	Base – hardener 2V6	94,3 : 5,7

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. 6 hours at 20°C
approx. 4 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 0.011 – 0.013 inch	1.5 – 2.0 mm	
Nozzle pressure	130 – 160 bar	2 – 3 bar	
Typical d.f.t.	100 µm	70 µm	60 µm
Cleaning of equipment	Thinner JFG 253		

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:
Blasting according to the ISO standard 8501-1:1988 Sa 2½.

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 Polyfinish Primer HS 50 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.

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 Primer 50	1680 m³/L	85 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 steelpreservation
A 6 Pretreatment of construction steel