

# FREOPOX

## Coating ER1904

- 2K-coating with solvent
- Hardening with polyamide or aminadduct
- Good resistance with abrasion, industrial chemicals, oils, grease and so on
- Good adhesion on metallic undergrounds

<b>Technical / Physical Data</b>	<b>Resin/ binder</b>	epoxi-resin		
	<b>Colour</b>	acc. to RAL 841 HR other colour shades on request		
	<b>Gloss value</b> DIN 67530 and EN ISO 2813	ER1904 <b>G</b> = glossy ER1904 <b>M</b> = mat ER1904 <b>Z</b> = acc. to customer's requirement	>80 40 to 50 acc. to customer's requirement	geometry 20° geometry 85°
	<b>Original viscosity</b> DIN 53211*, without hardener	80 to 100 Sek. / 4 mm cup		
	<b>Mixing ratio</b> by weight	ER1904 <b>G</b> = glossy ER1904 <b>M</b> = mat ER1904 <b>Z</b> = acc. to customer's requirement.	4 : 1 5 : 1 10 : 1	HE0020 or HE0915 HE0915
	<b>Hardener</b> Base	FREOPOX-Hardener FREOPOX-Hardener see „Special remarks“	HE0020/ HE0915/ aminadduct polyamide	
	<b>Potlife</b> after hardener addition	max. 12 h / 20°C		
	<b>Thinner</b>	EFD-Thinner 400424 max. 30% possible		
	<b>Density</b> after hardener addition, calculated	1,0 g / ml + / - 0,1		
	<b>Solid content</b> after hardener addition, calculated	55 % + / - 3		
	<b>Solid content in volume</b> after hardener addition, calculated	478 ml / kg + / - 5		
	<b>Consumption</b> calculated, after hardener addition in original viscosity, without application loss	105 g / m <sup>2</sup> dry film thickness 50 µm see „Special remarks“		
	<b>Spreading rate</b> calculated, after hardener addition in original viscosity, without application loss	9,5 m <sup>2</sup> / kg dry film thickness 50 µm see „Special remarks“		

**Storability**      Approx. 24 month in original packings at an ambient temperature of 5 to 25 °C, in case the original packings are tightly closed. Opened packing must be used very shortly. The minimum storage stability of each batch is mentioned on the product label. A storage time beyond the mentioned date doesn't necessarily mean that the material is unusable. In this case a check of the qualities which are important for the respective.

## Processing and application

### Application

Components are to be mixed homogeneously (e.g. with high-speed mixer).

spraying-airless:	in original viscosity after hardener addition nozzle: 0,15 inch/ 0,38 mm spraying pressure: 150 bar
spraying-high pressure:	after hardener addition and viscosity adjustment to 25 to 35 sec. nozzle: 1,4 mm spraying pressure: 3 to 4 bar
by roller/ brush:	in original viscosity after hardener addition

### Substrates

steel, aluminium

### Pretreatment

The substrate must be free of materials which prevent adhesion, e.g. oil, grease, dust and surfactant. According to the requirements we recommend to apply the suited chemical (e.g. phosphatizing chromating) or / and mechanical (e.g. shot blasting) pretreatment.

### Proposal for a coating system

substrate:	steel
primer:	FREOPOX-Primer ER1912
top coat:	FREOPOX-Coating ER1904

### Application temperature

above 10 °C

### Drying

air drying at 20°C

dust dry:	after 90 min.	(degree of drying 1/ DIN EN ISO 9117-5)
dry to touch:	after 24 h	(degree of drying 4/ DIN EN ISO 9117-5)
complete dry:	after 7 days	(swinging beam hardness/ DIN EN ISO 1522)
		after 30 days chemically loadable
oven drying:	to 70°C possible	(object temperature)

### Recoatibility

with itself after previous grind at any time possible

### Cleaning of working equipment

With EFD-Thinner 400424 within the working time, completely dried paint can only mechanically be removed.

### Advise for safety protection and protection of health

The usual precautionary measures for ventilation as well as for personal protection are to be observed when handling painting materials. Detailed information about dangerous goods, safety data and recommendations concerning health protection and environment protection can be read in the corresponding safety data sheet.

## Special remarks

### Information about Hardener and Thinner

The hardener and the thinner mentioned on page 1 are stated as standard components for this paint system. The standard hardener is also written in the order documents as well as on the label. Furthermore there are additional hardeners and thinners, which can be used as alternative in case the standard components doesn't meet the requirements. These products are tailor-made e.g. faster or slower hardening.

Hardener are taking influence on the gloss (see page 1).

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## **Resistance**

### FREOPOX-Hardener HE0020

Hardening reaction with 95 % humidity and hardening temperature above 5 °C still perfectly. Improves hardness and chemical stability as HE0915.

### FREOPOX-Hardener HE0915

Sensitivity with high humidity, coating properties at hardening temperatures of over 10 °C perfectly, at hardening temperatures under 10 °C more badly (e.g. process, surface tackness, veil, strong reaction delay), inexpensive hardener combination.

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## **Test condition**

Indication of the delivery viscosity according to DIN 53211:

DIN 53211 was withdrawn in October 1996.

On request the value is available according to DIN EN ISO 2431.

The statements concerning efficiency, drying and caution labelling depend on colour shade. The values mentioned in this data sheet are based on ER1904GRA905, jet black, glossy and hardening with HE0915.

All information is based on a standard climate 20/65 DIN 50014.

For the calculation of the practical consumption loss additions have to be considered. Indications to this are the practical experience and advise given in DIN 53220.

All information are based on our product knowledge and experience. To the application we have no direct influence. For further information please don't hesitate to contact us.

The information mentioned herein are reference values and are not given as specification.