FreiLacke

Technical Data Sheet

EFDEDUR

System-Coating
UR9144

- 2-component-polyurethane-finish paint with solvent
- On powder coating co-ordinated system
- In- and outdoor usage
- Very good light- and weather resistance
- For industrial goods, e.g. mechanical engineering
- Good working properties

Technical / Physical Data	**Resin/ binder**		polyacrylic resin to be hardened with isocyanate
	Colour		between powder coating and RAL-Colour, RAL 840 HR
	Gloss value DIN 67530 and DIN EN ISO 2813		after powder sample
	Original viscosity DIN 53211* without hardener		70 to 80 Sek. / 4 mm cup
	Mixing ratio by weight	UR9144**G** = 5 : 1 UR9144**H** = 10 : 1	
	Hardener base		EFDEDUR-Hardener HU0400 polyisocyanate
	Potlife after hardener addition		max. 4 h / 20°C
	Thinner		EFD-Thinner 400320
	Density after hardener addition calculated		1,2 g / ml + / - 0,1
	Solid content after hardener addition calculated		62 % + / - 2
	Solid content in volume after hardener addition calculated		355 ml / kg + / - 20
	Consumption calculated after hardener addition in original viscosity, without application loss		130 to 150 g / m² 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

DIN EN ISO 9001
ISO/TS 16949
EMAS

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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: 0,013 inch geometry 40 spraying pressure: 150 bar
spraying-highpressure:	after hardener addition and viscosity adjustment to 20 to 25 sec. nozzle: 1,8 mm spraying pressure: 3 to 4 bar

Substrates
steel, non ferrous metals, plastic
Depending upon request: chemical or / and mechanical pretreatment and / or primer

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

subtrate:	steel	
primer:	FREOPOX-Primer	ER1912
top coat:	EFDEDUR-System-Coating	UR9144

Application temperature
above 10 °C

Drying air drying at 20°C

dust dry:	after 60 min.	(degree of drying 1/ DIN EN ISO 9117-5)
dry to touch:	after 4 h	(degree of drying 4/ DIN EN ISO 9117-5)
complete dry:	after 7 days	(swinging beam hardness/ DIN EN ISO 1522)
oven drying:	to 100°C possible	(object temperature)

Cleaning of working equipment
EFD-Thinner 400500

Advise for safety protection and protection of health
The usual precautionery measures for ventilation as well as for personal protection are to be observed when handling painting materials. Detailled information about dangerous goods, sayfety 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 componentes 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.

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 and drying depend on colour shade.
The values mentioned in this data sheet are based on UR9144HG1839 and hardening with HU0400.

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 advices 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.