

FREIOTHERM-Electrocoating

KTL – acrylat

General description: bath-material

1. General

- name: FREIOTHERM-KTL-bath-acrylat
- cathodic electrocoating system
- for uv- and corrosion-resistant priming coat or one coat systems

2. Product-properties

- Resin-base: modified polyacrylic resin
- Colour: multicolored colours
- Gloss: semi-gloss to gloss
- Stoving-conditions: 160°C – 30 minutes until
190°C – 10 minutes/ object-temperature
- Very good light-resistance
- Good corrosion-resistant

3. Application-properties

- Application for agricultural machinery, electrical-, radiator industry or vehicle part industry priming coat or one coat systems with good uv- and corrosion-resistant
- Substrates: Steel and suitable non iron metals
- Pre-treatment: The substrate must be free of materials which prevent adhesion, e.g. oil, grease, dust and surfactant. Alkaline cleaning with following iron-bondesize-system or zinc-phosphate. Alternative only degreasing iron-bondesize-system.

4. Bath-parameters

Dependes on the individual plant-conception

<u>Examination</u>	<u>value</u>	<u>unit</u>	<u>in accordance</u>
pH-value	4,9 to 5,5	--	DIN 19260
Conductivity	1100 to 1400	µs / cm	--
Solid	min. 18	weight %	DIN EN ISO 3251
MEQ/ b-value	4,5 to 5,5	--	--
Temperature	28 to 32	°C	--
Organic solvent	1,0 to 4,5	weight %	--

5. Coating-terms

Dependent on attitude and use-area.

<u>Method</u>	<u>value</u>	<u>unit</u>
Coating-time	90 to 180	seconds
Voltage	150 to 300	Volt
Film thickness	10 to 40	µm

6. Physical-properties

All statements are based on norm-atmosphere 20/65 DIN 50014.

<u>Method</u>	<u>value</u>	<u>unit</u>	<u>in accordance</u>
Gloss/ 60°	40 to 80	GE	DIN 67530
Adhesion	GT 0	--	DIN EN ISO 2409
Mandrel test	10: i.O.	mm	DIN EN ISO 1519
Hardness	125	--	DIN EN ISO 2815
Erichsen test	3,5 to 6,0	mm	DIN EN ISO 1520
Pencil hardness	3 H	--	Wolff-Wilborn
Impact test	value 1,5	--	VDA 621 427
QUV-Test	500 h : ΔE < 0,5	--	--

7. Chemical-properties

Lacquer-film-data tested on zinc-phosphate (laboratory sheet metals: Gardobond 26S W42 OC)

Stoving conditions: 170°C / 20 minutes object temperature

Film thickness: 25 µm + / - 2

<u>Testing</u>	<u>Saltspray test</u>	<u>Humidity test</u>	<u>VDA-Changetest</u>	<u>in accordance</u>
	720 h/ DIN 50021	1008 h/ DIN 50017	6 zyklen/ VDA 621-412	
Degree of rusting	Ri 0	Ri 0	Ri 0	DIN EN ISO 4628-3
Edge corrosion	Kr 2	Kr 0	Kr 1	DIN EN ISO 4628-1
Blistering	Edge: m2 / g2	Edge: m0 / g0	Edge: m3 / g3	DIN EN ISO 4628-2
Infiltration	Wb < 2 mm	Wb < 0,5 mm	Wb < 1 mm	DIN EN ISO 4628-8

9. Chemical-resistance

<u>Method</u>	<u>value</u>	<u>in accordance</u>
Fruit acid resistance	Note 0 to 1	DIN 8964-B2

10. General hints

The corrosion resistant is influenced strongly by the substrate and by the quality of the pretreatment. The edge-corrosion is practice-part to assess separately for everyone, since according to " edge-sharpness " different results can result. On original parts eg. with a higher surface roughness the filmthickness must be higher then 35 µm. So the point corrosion don't appear and the paint surface have a higher resistance against an abrasive strain. All values refer to electrical dipping varnishes without impairment of added ions or foreign matter.

11. Bath-stability

1 „turn-over“ / year

Definition: 1 turn over = 1 troughput of the solid in the tank

More information contains our safety - and technical data sheets.