

FREIOTHERM-Electrocoating

ATL – corrosion resistant

General description: bath-material

1. General

- Name: FREIOTHERM-ATL-bath-corrosion resistant
- Anodic electrocoating system for corrosion resistant priming coat or one coat systems; use inside
- Use specifically for agricultural-machines and office furniture

2. Product-properties

- Resin-base: modified polyacrylic resin
- Colour: different colours, other colour shades on request
- Gloss: satin mat to satin glossy
- Stoving-conditions: 140°C - 30 minutes until
180°C - 10 minutes/ object-temperature
- Compared with maleic / polyoil types lower smell, lower yellowing and lower stoving temperatures

3. Application-properties

- Substrates: Steel and suitable non ferrous metal
- Pre-treatment: The substrate must be free of materials which prevent adhesion, e.g. oil, grease, rust, scale, tolling skin, wax and parting of agent arrears 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.

4. Bath-parameters

Depended on the individual plant-conception

<u>Examination:</u>	<u>value</u>	<u>unit</u>	<u>in accordance</u>
pH-value	8,4 to 9,0	--	DIN 19260
Conductivity	800 to 1600	µs / cm	--
Solid	10 to 16	weight %	DIN EN ISO 3251
Amine value	50 to 65	mg / g	VDA 621-108
Temperature	25 to 30	°C	--
Organic solvent	1,0 to 2,5	weight %	--

5. Coating-terms

Dependent on attitude and use-area.

<u>Method</u>	<u>value</u>	<u>unit</u>
Coating-time	60 to 180	seconds
Voltage	150 to 300	Volt
Film thickness	15 to 35	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 / angle 60°	30 to 70	GE	DIN 67530
Adhesion	GT 0	--	DIN EN ISO 2409
Hardness	> 90	--	DIN EN ISO 2815
Erichsen test	> 4,5	mm	DIN EN ISO 1520
Pencil hardness	3	H	Wolf-Wilborn
Mandrel test	6	mm	DIN EN ISO 1519

7. Chemical-properties

Lacquer-film-data tested on zinc phosphated steel

Stoving conditions: 160°C / 20 minutes object temperature

Film thickness: 25 µm + / - 2

<u>Testing</u>	<u>Saltspray test</u>	<u>Humidity test</u>	<u>in accordance</u>
	504 h/ DIN 50021	720 h/ DIN 50017	
Degree of rusting	Ri 0	Ri 0	DIN 53210
Edge corrosion	Kr 1-2	Kr 0	DIN 53230
Blistering	Edge/ Surface m3/g1	Edge/ Surface m0/g0	DIN 53209
Infiltration	Wb = 0,5 mm	Wb < 0,5 mm	DIN 53167

8. Resistance

<u>Method</u>	<u>result</u>	<u>in accordance</u>
Foodstuff resistant	fills	DIN 68861
Fruit-acidity-resistant	fills	DIN 8985
Chemical-test	fills	VDA 621-412

9. General hints

The corrosion resistant is influenced strongly by the quality of the preparation.

The edge-corrosion is practice-part to assess separately for everyone, since according to " edge-sharpness " different results can result.

10. 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.