ACRATON® ST-LT epoxy

Acraton ST-LT is a high performing, surface tolerant, high solids,
high build two pack amine cured epoxy coating, developed to cure at low temperatures down to –5°C.

- Good adhesion on St3 pre-treated steel substrate
- Depending on the temperature, the fast setting Acraton ST-LT can be recoated the same day.
- The coating used as a high build primer for a wide variety of epoxy and polyurethane topcoats.

Applicable can be as primer and/or coating on steel constructions in aggressive industrial and maritime environment such as dike walls, lock doors and ship walls.
- As outdoor finish layer chalking.

Product information at 20 °C

Finish	Semi-gloss (glosslevel approx. 50 GU)
Colour	Redbrown, grey, aluminium
Mass density	approx. 1.35 kg/L (mixed product)
Solid content	approx. 75 volume % (mixed product)
VOC	approx. 235 gr./L (volatile organic compounds)
Recommended film thickness	100-200 µm d.f.t. per layer 135-265 µm w.f.t. per layer (undiluted)
Theoretical spreading rate	At 100 µm d.f.t. 7.5 m²/L At 200 µm d.f.t. 3.7 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 Spraygun : 50-70% of the theoretical spreading rate
Flashpoint ISO 1523	Base 30°C Hardener 2V43 30°C Thinner FGM 631 23°C Thinner WTD 107 14°C
Dry temperature resistance	120°C
Shelf life	At least 12 months, provided that it has been stored in closed original packaging at a dry and cool spot.

Drying/curing properties at substrate temperature:

For d.f.t. up to 175 µm	20°C	10°C	5°C	0°C
Dust dry	3 hours	6 hours	10 hours	24 hours
Transportable	12 hours	18 hours	20 hours	48 hours
Fully cured	7 days	14 days	21 days	30 days
Recoatable:				
Minimum interval	12 hours	18 hours	20 hours	48 hours
Maximum interval *	7 days	14 days	21 days	30 days

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

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

Application instructions

Mixing ration	Volume:	Base - hardener 2V43	77:23
	Weight:	Base - hardener 2V43	83:17

Mixing instructions

Base and hardener should be mixed and applied at temperatures above 10°C.
At lower temperatures extra thinner is needed which can effect the drying/curing properties and the sag resistance.
The base and mixed product must be mixed carefully mechanically.
Pay attention to the side and the bottom of the can.

The mixing ratio is very limited, in particular when the packaging will be mixed partly.

Induction time

At 20°C not necessary
At 10°C at least 10 minutes

Potlife after mixing

20 litre packaging: approx. 8 hours at 10°C
approx. 4 hours at 20°C
approx. 2 hours at 30°C

Optimal application conditions

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	Luchtspuit	Kwast/roller
Type of thinner	Thinner FGM 631 Thinner WTD 107	Thinner FGM 631 Thinner WTD 107	Thinner FGM 631 Thinner WTD 107
	0 – 10 vol. %	5 – 15 vol. %	0 – 5 vol. %
Nozzle orifice	0,48 – 0,53 mm 0,019 – 0,021 inch	2,0 – 2,5 mm	
Nozzle pressure	170-200 bar	3 – 4 bar	
Typical d.f.t.	125 - 200 µm	100 - 175 µm	75 - 125 µm
Cleaning of equipment	FGM 631 / WTD 107		

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.

All soluble salts, oil, grease, dirt and other contaminates must be removed prior to further surface preparation or paint application in accordance with SSPC-SP1 solvent cleaning.

Steel

Initial:
Abrasive blasting according to ISO standard 8501-1:1988 Sa 2
Roughness profile Ra 10-12 µm Rz 35-60 µm.
Surface should be clean and dry.

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 2, ISO 8501-1,
or derust mechanical until St. 2-3 ISO 8501-1

Apply the recommended paint system on a clean surface.

- Mechanical or hand derusting gives less quality than (water)blasting and will result in less protection 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 dewpoint 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.

At low temperature and under humid conditions, amine blushing can occur, which can effect the intercoat adhesion negatively. Prior to the application of the next layer, the previous layer must be checked for this phenomena.

Discoloration or loss of gloss or other surface defects, can occur during drying and curing by condensation and or early water spotting.

This coating product is based on epoxy technology. It is recommendable that it should be overcoated with a durable finish.

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.

Safety information

See safety data sheet

Ventilation precaution

Minimum required quantity of air to comply with:		
	MAC	10 % LEL
Acraton ST-LT	1130 m³/L	50 m³/L
Thinner FGM 631	3995 m³/L	160 m³/L
Thinner WTD 107	4085 m³/L	168 m³/L

MAC = Maximum Accepted Concentration
LEL = Lower Explosion Limit
Also consult the material safety data sheets

See also the corresponding documentation sheets (downloadable from www.zandleven.com)

A 1 Labeling of paint products in the European Community
A 2 Physical data
A 4 General guidelines for steel preservation
A 6 Pretreatment of construction steel
- material safety data sheet
- information hardeners and thinners
- sales & delivery conditions