

SURFACE TREATMENT

Kinnegrip offers several systems of surface treatment.

- ED coating** - A primer consisting of three layers for optimal corrosion protection. Ready for overpainting with water-based or powder paint.
- Galvanized** - Hot dip galvanizing
- Aluminium** - The material is anodized
- Zink flake coating** - Geomet 500 applied to certain details
- Electro-galvanizing** - Applied to certain details
- Powder coating** - Applied to certain details and has ED coating as the base color

ED coating

Consists of three surface treatment layers.

First layer: Provexa Earth®

Second layer: Zinc manganese phosphating

Third layer: ED coating



Film Properties

Coat thickness	DIN EN ISO 2178	20 ± 2 µm
Grid section	DIN EN ISO 2409	GT 0 – GT 1
Erichsen Cupping Test	DIN EN ISO 1520	≥ 4 mm
Break oil resistance	TEVES ATE N 550	24 h
Chemical resistance	DIN EN ISO 2812-3	Grade 0 - 1

Cold rolled steel lab panels; zink phosphate Gardobond 26S W 0C; 20± 2 µm film thickness; cured 18 min @ 150 °C object temperature

Corrosion Resistance

Humidity Test	DIN EN ISO 6270-2	480 h	No changes
Salt Spray Test	DIN EN ISO 9227	504 h	d<1.0 mm
Cycle Corrosion Test	DIN EN ISO 119*97-1 / Cycle B	10 Cycles	d<2 mm
VW-Cycle Test	PV 1210	60 Cycles	d<2.5 mm

Cold rolled steel lab panels; zink phosphate Gardobond 26S W 0C; 20± 2 µm film thickness; cured 18 min @ 150 °C object temperature
(Evaluation according to DIN EN ISO 4628)

ED coating consists of three layers, one of which is Provexa Earth®, which is a surface treatment system for steel.

A world-class corrosion protection system that is globally patented and environmentally friendly. The product is environmentally friendly because it does not contain any blacklisted materials and is 100% nickel-free.

The system is first applied with a layer of Provexa Earth® followed by a zinc manganese phosphate layer and finally a layer of ED coating.

More information:

<https://provexa.com>

Instructions for top coating of ED primed articles

Ensure the surface is dry and free of dust, grease and dirt. It is possible to use alkaline degreasers, isopropanol or similar. The surface can withstand mechanical cleaning with high-pressure washing, rags, brushes, etc.

The surface can withstand drying / curing temperature up to 200 ° C

The surface does not withstand blasting or grinding.



A clean and damage-free surface gives long life. Regular rinsing / washing to remove salts, dirt and particles prolongs the life of the layer. Damage that passes through the layer down to the substrate should be repainted with, for example, solution-based paint.

Galvanized ZINQ®



System*	MicroZINQ® 5 ZnAl-Treatment (5 % Al)
Neutral salt-spray test* (ISO 9227)	Layer thickness $\geq 5 \mu\text{m}$ ZnAl5 480 h
Stone chip resistance* (nach ISO 20567-1, replaced DIN 55996-1)	Value 1,5 (a value of 0,5 – 2,5 is permissible)
Adhesion strength* (ISO 4624)	19-30 N/mm ²
Wear and tear resistance* (DIN EN ISO 438-2)	0,01 - 0,025 $\mu\text{m}/\text{circulation}$
Post treatment in areas* Without coating	in consultation with the client (Recommendation: zinc flake spray....)

* Clinically tested

Hot-dip galvanizing is a thermal process, in which, through an interaction between steel and zinc, the two metals merge or amalgamate inseparably.

As a binary alloy technology, microZINQ is based on the use of an aluminum-containing zinc alloy that achieves a uniform surface with defined functional and aesthetic properties. Due to the higher passivity of the surface, microZINQ is particularly suitable for increased microclimatic requirements.

The surface can withstand drying / curing temperature up to 200 ° C

The surface does not withstand blasting or grinding.

Aluminium



Coated with a natural colored anodizing.

The aluminium has a anodized layer thickness of of 15µm.

Accessories

Accessory details are surface treated with Geomet 500 or powder coated

	Thickness	Salt Spray test
GEOMET® grade A	5-8 µm *	600 hours

* The specified thickness is an average value (see ISO 10 683 or EN 13 858). Individual measuring points are not significant, especially not when parts are mass-coated in large batches.



GEOMET® 500

GEOMET® 500 is applied to many types of metallic parts to protect from corrosion, and it is used in many industries.

- Thin dry-film, non-electrolytic, self-lubricated
- Water-based chemistry
- Passivated zinc and aluminium flakes in a binder, patented chemistry
- Metallic silver appearance

Should not be topcoated, risk for flaking

More information:

<https://provexa.com/process/zinkflake-geomet/>

Alesta® SD Superdurable Industri SD Ind Semi Gloss

Surface properties	Test method	Performance
Coating thickness	EN ISO 2360	90 ± 10 µm
Gloss @ 60°	EN ISO 2813	60 ± 5
Grid section	EN ISO 2409	GT0
Impact resistance	EN ISO 6272	1 kg / 50 cm



Powder coating Alesta® SD Superdurable Industri SD Ind Semi Gloss is applied to some details and has ED lacquer as the base colour.

Superdurable Industri is an outstanding weather-resistant polyester powder paint that meets the highest requirements for durability and design.

This powder paint meets the requirements of the European directive "Restriction of the use of certain hazardous substances" 2011/65/EU - 2015/863/EU (RoHS). Fire classification A2 (non-combustible) according to NF EN 13501-1:2018

Examples of areas of use:

Gas and liquid tanks, pipelines, metal structures, road and water construction, trucks, trailers and car parts.

Can be topcoated

Environmental impact and recycling

Kinnegrip AB is environmentally certified to ISO 14001. This means that we have control of our routines, conduct active environmental work and constantly strive to minimize our impact on the environment.



Kinnegrip's products are manufactured from steel and aluminium, which means that they can be recycled completely. Of course, we choose materials based on IMDS*, a system that allows us to comply with international standards, laws and regulations.

* International Material Data System