



Lindab **DuraFrost**

Technical information

Technical facts Lindab DuraFrost on sheet steel

Wrinkled polyurethane coated steel for standing seam roofing and flashings

Product description

Lindab DuraFrost for sheet metal work is available in two qualities. The steel quality PLX is used for seamed roofs, walls and flashings. The quality FAP is used for flashings, façade cassettes and other details on buildings. The base material PLX is an extra soft steel tinsmith quality. The steel has practically no spring back so that tight seams can be achieved. The material can be both hand or machine seamed.

The base material FAP is harder than PLX and is mostly used for flashings and details where a demand for tight seams does not exist. It is especially designed to have an even repetitive quality to make things easier for the user.

Base material

Both the PLX and FAP is coated with 350 g zinc per m² and double side. This equals 25 micron of zinc on each side.

Product	Base material	Yield strength	Steel thickness
PLX Z350	DX54 according to EN 10346:2015	Approximately 180 N/mm ²	0,6±0,06mm
FAP Z350	DX52 according to EN 10346:2015	Approximately 290 N/mm ²	0,6±0,06mm

Paint system

Lindab DuraFrost in PLX and FAP is coated with GreenCoat® Pural BT matt. The nominal coating thickness is 50 microns. The wrinkled paint which gets wrinkled during the curing process, makes the surface more scratch resistant compared to a smooth coating and the coating is optimized for good wear resistance.

Lindab is an official GreenCoat® Partner. GreenCoat® is SSABs brand for innovative and environmentally friendly colour coated steel solutions for roofs, facades and rain water systems.

Layer	Type	Thickness
Top coat	Wrinkled polyurethane	30 µm
Primer	Polyester	20 µm
Back coat	Epoxi/polyester 2 layer	10 µm

Since DuraFrost is a wrinkled coating, different batches might have slightly different structure and therefore break the sun light in different ways, making the colour look different for the eye. Due to this, you must not mix batches on the same side of a roof.

Matt finish

Lindab DuraFrost is a matt product with a gloss as low as 5. See separate colour chart for colour offering.

	Data	Trial method
Paint thickness	50 µm	ISO 2808
Gloss	Matt 5±3	EN 13523-2
Bending radius	0.5 T	EN 13523-7
Adhesion	Without remark	EN 13523-6
Scratch resistance	Min 40 N	EN 13523-12
Maximum working temperature	100°C	
Corrosivity class	C4	EN ISO 12944-2 (see separate table)
UV class	R _{UV} 4	

Working temperature

Lindab DuraFrost in PLX and FAP can (according to tests done) be hand or machine seamed down to a steel temperature of -10°C without the appearance of micro cracks. Maximum working temperature is 100°C.

Environment

There is a well-functioning infrastructure for recycling of steel all over the world. Lindab DuraFrost contains roughly 20% recycled material. The coating is completely chrome free and parts of the solvents are from bio-based material.

Resistance to chemicals

DuraFrost has a good resistance to chemicals in general, but there are some exceptions. Avoid contact with certain organic solvents, such as aromatics, ketones and chlorinated hydrocarbons.

Reaction to fire

Lindab DuraFrost fulfils class A1-s1,d0 according to EN 13501-1:2007+A1:2009.

Lifetime and Maintenance

For painted sheet metal, you can distinguish aesthetical and technical life span. Aesthetic life span is the time until the color layer has changed so much that the appearance no longer meets the required requirements. Technical life span is the time until steel no longer protects the building's structural structures or underlying construction. Regular maintenance extends the life of the paint layer and hence the time for repainting.

Radiation from the sun, weather and closeness to the sea front are factors that contributes to the ageing of the coating. The lifetime expectancy also depends if the material is used for wall or roof, for example a roof facing south

where the inclination is small will be more affected of the sun than other surfaces facing north. Both the ultraviolet radiation and the heat from the sun affects the ageing.

Already the choice of the colour affects the lifetime expectancy, bright colors lasts normally longer than dark ones.

Touch up paint

If the coating suffers small scratches during the mounting, they shall be repaired with touch up paint. Paint with a narrow brush only in the scratch itself. Don't paint a larger surface than needed as the colour might differ somewhat from the coated steel. It can also age differently over time than the precoating. Lindab supplies touch up paint in all standard colours.

Corrosivity classes according to ISO 12944-2 with environmental examples

Corrosivity category	Corrosivity	Examples of typical environments (informative only)	
		Exterior	Interior
C1	Very low	-	Heated buildings with clean atmosphere, e.g. offices, shops, schools, hotels
C2	Low	Atmospheres with low level of pollution: mostly rural areas	Unheated buildings where condensation can occur, e.g. depots, sports halls
C3	Medium	Urban and industrial atmospheres, moderate sulfur dioxide pollution; coastal areas with low salinity	Production rooms with high humidity and some air pollution, e.g. food-processing plants, laundries, breweries, dairies
C4	High	Industrial areas and coastal areas with moderate salinity	Chemical plants, swimming pools, coastal ship and boatyards
C5	Very high	Industrial areas with high humidity and aggressive atmosphere and coastal areas with high salinity	Buildings or areas with almost permanent condensation and with high pollution
CX	Extreme	Offshore areas with high salinity and industrial areas with extreme humidity and aggressive atmosphere and subtropical and tropical atmospheres.	Industrial areas with extreme humidity and aggressive atmosphere.



Most of us spend the majority of our time indoors. Indoor climate is crucial to how we feel, how productive we are and if we stay healthy.

We at Lindab have therefore made it our most important objective to contribute to an indoor climate that improves people's lives. We do this by developing energy-efficient ventilation solutions and durable building products. We also aim to contribute to a better climate for our planet by working in a way that is sustainable for both people and the environment.

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