

Warranty for Marine Coatings

The coating system is to satisfy the requirements of ISO 12944-5 (Corrosion Protection of Steel Structures by Protective Paint Systems) with an environmental classification of:

Option 1

C3 (Medium Corrosivity) and with warranty of 5 years.

- a) Surface preparation – sandblast to Sa 2¹/₂
- b) Epoxy / Polyurethane at NDFT of 200 µm

Option 2

C4 (High Corrosivity) and with warranty of 5 years.

- a) Surface preparation – sandblast to Sa 2¹/₂
- b) Epoxy / Polyurethane at NDFT of 240 µm

Option 3

C5 (Very High Corrosivity – Industrial / Marine) and with warranty of 5 years.

- a) Surface preparation – sandblast to Sa 2¹/₂
- b) Epoxy / Polyurethane at NDFT of 300 µm

Maintenance Requirements.

- the coated panels & support structure should be washed at least once per year
- any mechanical damage to the paint work must be touched up immediately
- any defect in the coating or sign of corrosion must be reported to Bluchem immediately.

Evaluation of Degradation of Coating (as per ISO 4628)

The Bluchem warranty shall be enforceable when the degree of visible rust exceeds Ri3. This degradation is determined according to the ISO 4628-3 standard, which corresponds to the presence of rust across 1% of the surface. If the corrosion represents grade Ri4 or less a localised repair will be carried out. Above Ri4, a recoat of the whole area will be carried out.

Excluded from the Warranty

- Acts of God or acts of malice
- Physical or mechanical abuse / damage caused by any third party.
- Fading, chalking, discolouration or loss of gloss
- Any failure due to a change in the service conditions or exposure after the original coating recommendation was made.
- Any failure caused by subsequent degradation or delamination of any old coating not removed by abrasive blast cleaning.
- Any consequential loss resulting directly or indirectly from corrosion and any economic loss suffered as a result of delay or inconvenience caused by repainting and reinstatement.

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The customer must indicate:

1. The environment that the equipment will be located in.
2. The durability expectation, i.e. Low (*/- 2 years), Medium (*/- 5 years), or High (15 + years).
3. Coating system to be matched.

EN ISO 12944-2 : 1998

Table 1 — Atmospheric-corrosivity categories and examples of typical environments

Corrosivity category	Mass loss per unit surface/thickness loss (after first year of exposure)				Examples of typical environments in a temperate climate (informative only)	
	Low-carbon steel		Zinc		Exterior	Interior
	Mass loss g/m ²	Thickness loss µm	Mass loss g/m ²	Thickness loss µm		
C1 very low	≤ 10	≤ 1,3	≤ 0,7	≤ 0,1	—	Heated buildings with clean atmospheres, e.g. offices, shops, schools, hotels.
C2 low	> 10 to 200	> 1,3 to 25	> 0,7 to 5	> 0,1 to 0,7	Atmospheres with low level of pollution. Mostly rural areas.	Unheated buildings where condensation may occur, e.g. depots, sports halls.
C3 medium	> 200 to 400	> 25 to 50	> 5 to 15	> 0,7 to 2,1	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	> 400 to 650	> 50 to 80	> 15 to 30	> 2,1 to 4,2	Industrial areas and coastal areas with moderate salinity.	Chemical plants, swimming pools, coastal ship- and boatyards.
C5-I very high (industrial)	> 650 to 1 500	> 80 to 200	> 30 to 60	> 4,2 to 8,4	Industrial areas with high humidity and aggressive atmosphere.	Buildings or areas with almost permanent condensation and with high pollution.
C5-M very high (marine)	> 650 to 1 500	> 80 to 200	> 30 to 60	> 4,2 to 8,4	Coastal and offshore areas with high salinity.	Buildings or areas with almost permanent condensation and with high pollution.

NOTES

1 The loss values used for the corrosivity categories are identical to those given in ISO 9223.

2 In coastal areas in hot, humid zones, the mass or thickness losses can exceed the limits of category C5-M. Special precautions must therefore be taken when selecting protective paint systems for structures in such areas.

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