

Corrosion / Atmosphere

Choice of steel quality according to atmosphere

Atmospheric corrosion is linked to ambient atmosphere. The agents combined themselves to air components. The mixture of oxygen, moisture and industrial pollutants, mainly chlorous and sulphurous, attacks and destroys metals and alloys. We can indicate 6 principal types of atmosphere.

TYPES OF ATMOSPHERE		Zinc deposit µm min	INOX			
			A1	A2	A4	
INSIDE	DRY	Clean rooms, heated in winter without condensation. Housing inside, air-conditioned rooms.	5-10 µm (1)	●	●	●
	HUMID	Rooms subjected to condensation, warehouses, stores, cellars...	40 µm (2)	□	○	●
OUTSIDE	RURAL	Housing in temperate climate and a long way from large cities and factories (country).	5-10 µm (1)	●	●	●
	URBAN	Housing in towns with one or more factories emitting smoke creating atmospheric corrosion.	40 µm (2)	□	○	●
	INDUSTRIAL	Factories and their surroundings significant atmospheric corrosion (depending on industrial process).	40 µm (2)	□	○	●
	SALT ATMOSPHERE	Atmosphere of seaside or on sea. High corrosion due to presence of relatively high humidity combined with certain contents of sea salt in the air.	40 µm (2)	□	○	●

Source : NFA 91-102 - Metal surface

(1) Electric zinc coating
(2) Hot dip galvanizing

□ Quality not suitable for the medium
○ Get into touch with us
● Possible use

Choice of steel quality according to contacts between materials

Electrolytic corrosion may occur when two different metals are in contact with each other. This creates an electrolytic action which causes the gradual destruction of one of the elements.

Metal of part to be fixed	Metal of fixation					
	Stainless steel	Galvanised steel	Zinc coated steel	Zinc alloy	Lead	Brass
Stainless steel	●	↑	↑	↑	↑	↑
Galvanised steel	←	●	●	●	●	←
Zinc coated steel	←	●	●	●	●	←
Mild steel	←	↑	↑	↑	●	←
Aluminium alloy	←	↑	↑	↑	●	●
Zinc alloy	←	●	●	●	←	←

● Possible contact between the two metals ← Metal of part to be fixed ↑ Metal of fixing is attacked