



ALUMINIUM WATER STAIN PREVENTION

WHEN YOU RECEIVE METAL**1. Check for wetness.**

- (a) Is the metal wet? Is the wrapping paper puckered up or wet?
- (b) If it is wet, note it on all copies of the receiving papers.
- (c) Inform the Purchasing Department or Quality Control immediately.

2. Check to see if the metal feels cold.

If it does:

- (a) Tell your supervisor immediately.
- (b) Leave the metal in a cool indoor area away from drafts to allow it to warm up slowly.
(If this is not done, and metal is put in a heated warehouse immediately, it may sweat and become water stained.)
- (c) After the metal is reasonably warm (about a day later), move it to the warehouse.

WHEN YOU MOVE METAL BETWEEN AREAS

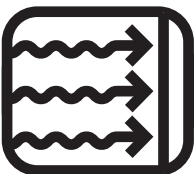
Check to see if the temperature in the area the metal will be taken to is higher than the temperature in the area the metal is coming from.

If the difference is more than 11°C (20°F):

- (a) Only move as much metal as will be used immediately.
- (b) Tell your supervisor.
- (c) Leave the remainder of the metal where it is until ready for use.

NOTE:

If you experience any signs of moisture, dampness or water staining on your delivery, please call your local Capral Aluminium Centre immediately.



CORROSION

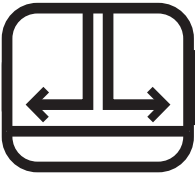
EXPOSURE

Aluminium and its alloys have excellent durability and corrosion resistance, but, like most materials, their behaviour can be influenced by the way in which they are used.

Aluminium's natural affinity with oxygen results in the formation of a transparent oxide film when aluminium is exposed to air. This oxide film is generally 5 to 10mm thick, extremely hard, chemically stable, corrosion resistant and adheres strongly to the parent metal surface. If damaged in any way, it will reform if enough oxygen is available. The film is removed to facilitate anodising or welding.

In anodising, a thicker, more controlled deposit of oxide film is added.

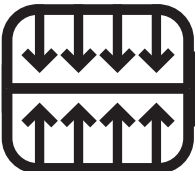
In welding, the oxide film inhibits metal fusion.



AVOIDING CORROSION

Since the corrosion behaviour of alloyed aluminium is influenced by the physical conditions of the environment, contact with dissimilar metals and by the presence of crevices, the design of equipment made with aluminium can have an appreciable influence on the nature and rate of corrosion.

- Never use aluminium in anaerobic (no oxygen) conditions.
- Seal all joints and bolt holes.
- Eliminate corners and crevices which are difficult to clean.
- Butt weld where possible.
- Avoid dissimilar metal contact whenever possible.



CONTACT WITH MATERIALS

WOOD

- Dry wood has no reaction to aluminium.
- Unseasoned/damp wood should be coated with an aluminium or bituminous paint.
- Treated timber may require special consideration and referral to the supplier.

INSULATION

- Foam, felt, fire retardant may cause corrosion of aluminium if they become wet when in contact with it.
- Protect the aluminium by using an inert barrier.

CONCRETE

- No protection under perfectly dry conditions.
- As these conditions are rare, all aluminium surfaces in direct contact with concrete should be coated with bituminous paint.

CHEMICALS

- A direct chemical attack of aluminium only occurs to any great extent in strong acid or alkaline conditions.
- In some cases the temperature may significantly alter the rate of chemical reaction or be a major factor in initiating chemical attack.