Aluminium materials are characterised by their lightness, strength, corrosion resistance, high durability and formability leading to a wide range of product forms and extensive use in engineering applications. However, despite its high durability and corrosion resistance, some simple steps should be employed when handling and cleaning aluminium to avoid staining and damage as some alloys tend to be quite soft.

MAINTENANCE

The best way to keep aluminium looking pristine is regular cleaning to remove any build up of dirt. If left for an extended period of time, grime can cause staining and depending on the extent of staining will require a harsher cleaning system to remove the stain. In cleaning aluminium one should always start with the mildest method possible and only move to successively harsher treatments if absolutely necessary.

CLEANING METHODS

The cleaning methods in ascending order of harshness are:

¨ Plain water
¨ Mild soap / detergent
¨ Solvents such as kerosene, turpentine or white spirit
¨ Non-etching chemical cleaner
¨ Wax-based polish
¨ Abrasive wax
¨ Abrasive cleaner

After cleaning the aluminium should be washed thoroughly and dried to prevent streaking. Special care should be taken to remove any traces of cleaner from edges and joins. Always follow manufacturers recommendations when using proprietary cleaning products.

Abrasive cleaners can alter the appearance of polished aluminium or aluminium with a 'grain' finish. If the aluminium has a grain, always clean with the grain.

RECEIVING ALUMINIUM DELIVERIES

In many cases aluminium components are supplied with a polished surface that is protected by a strippable plastic or paper coating. Upon receipt the coating should be inspected for any damage that might have been transferred to the underlying aluminium.
Upon receipt, materials should also be inspected for signs of wetness to avoid the possibility of water staining. This should include looking for wet packaging or pallets.
Materials should also be moved indoors for storage into dry conditions. This should be done immediately on damp or rainy days.

HANDLING ALUMINIUM

To avoid damage to the surface of aluminium components, some care is needed in handling. This includes:
~ Avoid allowing aluminium to scrape against hard or sharp surfaces
~Two people should be used when stacking/unstacking or moving sheets to avoid dragging them over one another
~ Do not drag or throw aluminium components
~ In order to avoid distortion or damage, use soft slings when lifting heavy components
~ Do not walk over sheets whilst moving them.

STORING ALUMINIUM

If being stored for extended periods, aluminium should be lightly oiled and stored vertically to ensure air circulation over all surfaces.
Aluminium should be stored indoors, in a clean, dry, dust and contaminant free environment and not be in contact with other materials.

WATER STAINING

A common problem with aluminium is water staining. Water staining is generally a white powdery substance on the surface of the aluminium but depending on the alloy or amount of oxidation it may have an iridescent appearance. It is caused by the entrapment of moisture between the surfaces of closely packed aluminium. High magnesium alloys produce the most water stain. The only detrimental effect of water staining is aesthetic as it doesn't alter the mechanical properties of aluminium.

If material is delivered wet, it should be allowed to dry thoroughly before storage. This should be done by evaporation using dry air. Removal of the moisture will prevent stains occurring and halt the growth of any existing water stains.

The extent of existing stains can be determined by surface roughness. Light staining will be smooth and can be removed by brushing. For extensive staining (rough surface) dipping in an aqueous solution of 10% by volume sulphuric acid and 3% by weight chromic acid may be required.

INSTALLATION

Installation and delivery of aluminium components should always be delayed to the last possible moment to avoid accidental staining and/or damage.

Newly installed aluminium components most commonly require cleaning due to carelessness with nearby work procedures. This results in staining from such things as mortar, concrete and paints.

This can be avoided or minimized by protecting aluminium surfaces with a clear lacquer or light oil. If the aluminium is tainted with a wet product it should be removed before drying and washed thoroughly with water. If dry mortar, plaster or paint needs to be removed from aluminium by scraping, use a plastic or wooden scraper. Metal scrapers will damage the surface of the aluminium.

CONTACT

Web: www.dalsteel.com.au

REVISION HISTORY

Datasheet Updated 18 July 2019

DISCLAIMER

This Data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon.

Please note that the 'Datasheet Update' date shown above is no guarantee of accuracy or whether the datasheet is up to date.

The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources.

Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards.

As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.