

Health & Safety

Aluminium and alloy products

Semi-fabricated and fabricated products comprising of commercially pure aluminium (99%) and/or aluminium alloy. These items are generally used within the architectural and related industries and for general engineering and commercial purposes.

Hazards

These products, when stored and fixed in accordance with best practice do not constitute a hazard.

The correct lifting and handling procedures must be followed to avoid the possibility of personal injury.

When fixing the product, cutting of skin is possible when handling, particularly on the material edges.

Drilling and cutting the product may produce chippings which could result in eye or skin damage. Filing and cutting operations can also result in the production of a fine dust, which may cause discomfort if inhaled.

Toxic fumes, which could be inhaled, may be produced from aluminium products if overheated. This includes the use of unsuitable equipment, e.g. abrasive wheels for cutting purposes, blow lamps, etc. Fumes, which may burn, can be caused if the aluminium is involved with a fire.

Aluminium and aluminium alloy can also be softened, with a consequent loss in strength, when subjected to temperatures above 215°.

Precautions

Protective gloves should always be worn to avoid skin damage when handling aluminium and alloy products.

Eye protection should always be used during drilling and cutting operations.

GA products are always to be worked and fixed with best practice, as outlined in our technical notes.

Material should only be lifted and moved in accordance with the HSE manual handling regulations. When subjecting the items to hot temperatures ensure adequate ventilation is provided.

In a fire, breathing apparatus should be worn.

Never use blow lamps, abrasive wheels for cutting, or other unsuitable equipment, on or adjacent to GA products.

Packaging

Prior to despatch GA products are packed in the warehouse and protected to ensure they arrive on site in first class condition. The packing details vary from product to product, depending on shape and weight.

Wherever possible, items are packed horizontally with sheets or panels lying one on top of another, and additional protection to the sides and ends.

For large and or flimsy items, timber base pallets (from replenishable sources) are used. Recyclable, double wall crush resistant cardboard protects the pack surface, this is secured with metal or polypropylene strapping.

Lengths of extruded profiles are normally packed in durable crush resistant cardboard tubes. Alternatively, oversized items and bundles are supported on timber supports and secured with polypropylene strapping.

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GA Helpline 020 8692 2255 Mon-Fri 8.30am-5pm for professional assistance

www.goodingalum.com sales@goodingalum.com

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Delivery and off loading

Goods are despatched on overnight delivery services whenever possible to ensure they reach the point of destination in the shortest possible time.

Packs weighing up to 50kgs can normally be safely off loaded by two persons. For packs above 50kgs a mechanical or hydraulic device should be used. These packs should always be carefully lowered into position, never dropped.

Site storage

After delivery, products are often kept for a period of time on site, before fixing commences. To ensure the items are kept in pristine condition the following precautions should be taken.

Products should be taken under cover immediately. After initially unpacking and checking the items for purchase order compliance they should be carefully re-packed to protect against accidental damage.

It is important to keep the aluminium away from building activities where it could be contaminated with lime and cement, which would cause staining.

Items should be stored in dry conditions, to avoid the possibility that moisture might percolate between surfaces. Although unlikely to result in corrosion it may lead to unsightly staining.

Do not store packs where personnel might walk across them.

Keep GA items in a secure area, aluminium is recyclable and has a relatively high scrap value.

Installation

The installation of aluminium products must be planned carefully to minimise risk of damage during the fixing process.

Contractors should be instructed to carry out spot checks on sheet products covered with protective film before working or fixing commences, to ensure surface finish suitability.

The lightweight advantage of aluminium (34% that of steel) over other architectural materials, makes for ease of handling and fixing with a minimum number of operatives. When handling individual sheets or panels, care should be taken not to damage exposed edges or corners. Thin materials are particularly vulnerable.

Aluminium items have a best and reverse face. Inspect closely and ensure the best face is fixed / positioned on the most visible side.

Material flanges which are oversize must not be forced or hammered into position. Components requiring a reduction in size should ideally be returned to the factory for re-processing.

Site work such as drilling and cutting, should be avoided if possible. If specified, items can be supplied as accurately pre-cut and pre-drilled components subject to agreed tolerances.

When installing or working unprotected material surfaces, a low tack self-adhesive tape or covering is to be applied to prevent surface marking.

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Installation (ctd)

When site drilling is unavoidable, standard twist drills are satisfactory for most operations. For deep holes, high speed drills or bits with a steeper point of angle should be used.

Positions for drill holes should not be marked out along visible faces with a scored line. A pencil, or felt tip pen with removable ink or similar is to be used, which can be subsequently wiped off with a soft cloth.

After fixing, screw heads can be matched-up to the required colour with a small brush.

Cutting operations can be effected by semi high-speed and high-speed saws of between 150mm and 450mm diameter, with approximately 3 teeth per 25mm. Band saws and heavy-duty woodworking machines are also suitable for light work.

Blades used in hand saws should be of high speed type with fairly coarse teeth.

After cutting, it is important that any swarf or chippings are removed from the product surface with extreme care, to avoid the possibility of scratching. These should be removed ideally with an airline or alternatively by lightly brushing away. Burrs can be removed using long angle files with 14 to 20 single cut teeth per 25mm, for most fine work.

Remove any grease, dirt deposits, finger marks, etc, from the material surface with non-abrasive cleaning agents and materials.