

MAINTENANCE OF Aluminium Composite Materials

General

All aspects of the building work are to be maintained as per the manufacturers and/or suppliers specifications and/or technical information, and the relevant New Zealand Standards.

The New Zealand Building Code Clause B2 (Section 2) of the Acceptable Solutions specifies the requirements relating to the durability of specific building elements

The performance of that maintenance is the responsibility of the existing owner to carry out – it is also the responsibility of the existing owner to ensure that any future owners are fully aware of their responsibilities in terms of carrying out the required maintenance identified in the Maintenance Schedule.

The extent and nature of that maintenance will depend on the material, or system, its geographical location and position within the building, and can involve the replacement of components subject to accelerated wear. The responsibility of the person specifying the building element is to determine normal maintenance requirements. These may be based on the manufacturer's recommendations. The owner is responsible for putting this into practice.

Maintenance items to buildings normally include but are not limited to the following:

- A. Adhere to manufacturers' maintenance recommendations,
- B. Inspect and replace system components like joint sealant where required,
- C. Test stability of panels by applying pressure and suction on the panel surfaces,
- D. Washing down surfaces as recommended, and
- E. Were there items introduced to the building like signage, light fittings or penetrations that have not been considered by the supplier – take note that this could affect the material and weather tightness.

Maintenance does not include such things as upgrading building elements to meet the demands of new technology or the increased environmental expectations of users.

ACM surface coating systems require regular washing with water and low levels of detergents to enhance its life expectancy and maintain attractiveness for many years.

The positioning of the ACM panels on a building will affect their maintenance requirements.

MAINTENANCE

Washing of the ACM should be done at least every 6 months. In coastal areas where marine salt spray is prevalent and in areas where high industrial fallout occur maintenance washing should be carried out more frequently. Care should be taken to prevent the accumulation of salty deposits or industrial dirt – all surfaces must remain free from these harmful deposits.

Maintenance Logs should be kept to record washing schedules. Allowance in the log sheet should be made to record changes in the ACM panel surface, sealants and cleaning agents used.

Cleaning Of Aluminium Composite Materials

ACM panels consist of 0.5mm aluminium sheet bonded to each side of a polyethylene or an aluminium hydroxide mineral core. The decorative face exposed to general view is factory finished in PVDF (also known as PVF2) or Fluoropolymer, which are high performance architectural paint finishes.

A frequent cleaning program is required to maintain the surface finish in good condition.

MAINTENANCE OF Aluminium Composite Materials

Cleaning Methods:

PVF2 paint finish is softer than powder coated finishes and can be scratched with sharp objects. Care must be taken in choice of tools and cleaning agents used.

I.) **Using Tools;** Ensure they are clean and free from sharp edges; even rags must be free from grit or abrasive particles to avoid scratching. Preferably use a soft brush.

II.) **Using Cleaning agents** of the following type may be used:

- a.) Mild Soapy Water
- b.) Turco Plaudit

NZ Supplier of Turco Plaudit: Henkel (NZ) Ltd.

Each option a.) or b.) must be thoroughly rinsed with clean water, then dried off with a chamois or similar.

Cleaning Operation:

The cleaning operation should be carried out in stages starting from the top and working downwards.

Panels should be wiped in the direction of the grain, do not use circular motion.

Use large volume of low pressure water to wash away loosened grime

Regularly rinse cloths or brushes

To avoid staining and streaking avoid cleaning in direct sunlight, always clean panels in shade.

UNSUITABLE CLEANING AGENTS:

Avoid both strongly alkaline agents (such as caustic soda) as well as strongly acid products. Similarly unsuitable are abrasives such as scouring powder or crème cleanser, or solvents that are likely to attack the paint finish. Products offered in the trade for metal cleaning should on no account come into contact with the painted surfaces.

High Pressure Water Cleaning:

Do not use high pressure water to clean the ACM system as this may cause damage to the sealant joint or cause paint to be removed.

Protect ACM from Impact:

During cleaning all access equipment such as ladders should be prepared with pads to protect the panels from impact from access equipment such as staging, mobile scaffold, cherry pickers or similar.