EXTRALUM

Technical Bulletin

Cleaning recommendations Anodized or Painted Architectural Aluminum products.

Although the anodized or painted finish of the EXTRALUM profiles is extremely durable and resistant, they always need proper cleaning and maintenance.

This technical information presents applicable methods for cleaning the aluminum surface, with anodized and powder coatings, at the end of the construction processes and for subsequent maintenance. It is intended for architects, engineers, installers, contractors, site managers, and homeowners interested in the proper care and maintenance of architecturally finished aluminum.

Anodized aluminum.

Like any finished building material, anodized aluminum requires reasonable care before and after installation, as well as regular cleaning and maintenance after installation. Even though anodized aluminum has exceptional resistance to corrosion, discoloration and wear, its natural beauty can be damaged by contact with certain chemicals, by aggressive environmental conditions or by negligence. Such conditions usually affect only the surface finish and do not reduce the life of the aluminum. However, the resulting marks may be permanent. For example, cement, alkaline materials, and some sealants can quickly corrode the anodic layer if allowed to dry on the metal surface.

AAluminum Powder Coating

In some environments, dust and sediment may not pose a risk to the paint coat, but cleaning and care of the paint surface are desirable conditions for the benefit of the appearance of the material. Cleaning should be strict in areas where heavy industrial deposits have clouded the surface, also when deposits of materials used in construction processes have formed or when due to the action of rain or washing there are runoffs of materials that deposit on the surface of metal.

TBoth anodized and painted surfaces, exposed to the environment, collect dust and sediment. The amount of pollutants deposited varies depending on the geographic area, environmental conditions, finish, and location of the building. More frequent cleaning will be required in industrial areas compared to rural areas. The frequency of pluvial precipitations or rains, can favor a reduction in the cleaning frequency, removing the water soluble deposits. In high humidity tropical coastal regions, frequent cycles of condensation and evaporation can cause saline deposits to adhere tenaciously to the surface of aluminum. In areas where rainfall is low, the opportunity for natural surface washing is minimal.

To achieve greater efficiency and economy, it is recommended to schedule the cleaning of the aluminum together with other elements of the building, such as glass.

Cleaning Procedure

Deposits of building materials, concrete and plaster, should be removed as soon as possible. The exact procedure for cleaning varies depending on the nature and degree of the deposit. When selecting the cleaning method, all construction materials that could be adversely affected by the runoff of soapy or chemical solutions during washing should be considered. We recommend using clean water and cleaning in conditions of low solar intensity or during a cloudy day.

Always start cleaning from the highest level to the lowest levels. It is recommended to start with gentle cleaning methods and only if necessary, use more intensive methods.

The simplest procedure is to wash the surface with clean water, using moderate pressure to loosen the deposits. If the tank remains attached after washing, then a neutral detergent solution (neutral pH7) in water should be used.

When it is necessary to use a neutral detergent solution, it should be applied with soft brushes or sponges. Washing should be done with uniform pressure, cleaning first with a horizontal movement and then with a vertical one. Apply the cleaner only to one area, which can be conveniently washed, rinsed, and dried, without changing positions. The surface must be thoroughly rinsed with plenty of clean water and then dried.

Runoff of water and detergent to lower levels should be minimized and those areas should be rinsed off as soon as possible. Do not allow the soapy solutions to dry on the horizontal surfaces of the aluminum.

Always wipe the surfaces from the bottom up and continue to rinse thoroughly with clean water from the top down.

Skin-friendly cleansers and detergents are safe for cleaning anodized or painted aluminum. The strongest detergents and cleaners should be carefully tested on a small metal surface to observe their effects.

If the deposits on the surface of the anodized aluminum remain even after applying the described techniques, the use of "Scotch Brite" sponges should be considered, although these are not recommended in profiles with painted surface. The sponge should be thoroughly wetted with clean water or soap solution to use. Always clean from top to bottom, rubbing the metal with even pressure. Rinse generously with clean water to remove all debris. It may be necessary to rub with the sponge while rinsing.

To remove non water soluble deposits, such as silicone, grease or others, use a mild solution of alcohol in water. Denatured alcohol or methanol or isopropyl alcohol and methanol can be used. It is recommended to always start with a solution of one part of alcohol to 10 parts of water.

Stronger solvents can have degrading effects on the metal surface and should not be used on painted surfaces. These types of solvents may wear down the sealant layers and damage the materials used, such as the gasket and seal. It should always be tested in a small area in order to determine its effects on all elements of the construction (gaskets, sealants, glass, paint, etc.).

Precautions and Tips

- Correctly identify the aluminum finish to select the proper cleaning method. Try cleaning a small area first.
- Always rinse thoroughly with clean water after removing any deposits from the surface.
- When removing deposits using "Scotch Brite" sponges, always do it with moderate pressure. Do not over-polish the surface as it could alter the texture or leave a different shine.
- Spray liberally with clean water before applying cleaning agent. Cleaners should not be used indiscriminately. Never mix cleaners. Mixing cleaners can not only be ineffective, but also dangerous. For example, mixing cleaners that contain chlorine with other cleaners that contain ammonia compounds can release poisonous gases.

- Never use aggressive alkaline or acid cleaners on aluminum with anodized or painted finish. Do not use cleaners that contain trisodium phosphate, phosphorite acid, hydrochloric acid, hydrofluoric acid, fluorides, or the like on anodized aluminum surfaces.
- It is recommendable to clean the aluminum in periods of low sun exposure (shade). Cleaning hot surfaces (by solar radiation) is not recommended as chemical reactions between the cleaning agent and hot aluminum can be accelerated. Also, avoid cleaning at low temperatures (below 10°C) or when the metal temperature is low enough to cause condensation. Surfaces cleaned under these adverse conditions can be damaged to such an extent that it would be impossible to restore their original appearance.
- Always clean an area that can be conveniently washed and rinsed without changing position. Do not allow the chemical compounds in the cleaner to dry on the aluminum surface.
- Minimize water runoff during laundering to lower levels of the building and rinse those areas as soon as possible.
- Do not use strong window cleaners when there is the possibility of the cleaner coming in contact with aluminum surfaces. If using an aggressive cleaner is required on some other building component, avoid contacting the cleaner with anodized or painted aluminum.
- During cleaning pay attention to your surroundings, think about your safety and others around you first.
- The type and frequency of cleaning varies with the amount of atmospheric sediment and dust accumulated on the aluminum surface, as well as with the interest and care of the owners.

If you have any doubts, consult the Extralum Sales Department.