

WHY PERIODIC CLEANING IS ESSENTIAL FOR METAL FAÇADES

Discover why regular cleaning and inspection are essential to protect coated steel and aluminum façades against corrosion, contamination and premature ageing.

Metal façades are widely used in commercial, industrial and logistics buildings. Steel sandwich panels, profiled sheets, flashings and aluminum cassettes combine efficient construction with extensive design freedom.

Steel and aluminum are generally protected by an organic coating or an anodized finish. These surface treatments reduce corrosion and preserve the appearance of the façade, but they do not provide permanent protection without maintenance.

Periodic cleaning is therefore not only an aesthetic measure. It is an essential part of the technical maintenance strategy.

Environmental exposure affects façade durability

The corrosion load on a metal façade depends strongly on its location. ISO 9223 classifies atmospheric corrosivity from C1 to C5 and CX, based on factors such as humidity, airborne salts and industrial pollution.

Buildings near coastlines, harbors, industrial areas, brackish water or heavily trafficked zones are often exposed to higher concentrations of chlorides, dust and pollutants.

These contaminants can attract and retain moisture on the façade surface. This prolonged moisture exposure accelerates coating ageing and increases the risk of:

- loss of gloss and color;
- filiform corrosion;
- under film corrosion;
- coating delamination;
- corrosion of the underlying metal.

Regular cleaning reduces this environmental load and helps the coating maintain its protective function.

Façade design influences contamination

Façade geometry has a direct effect on water drainage and dirt accumulation.

Flat, vertically oriented surfaces often benefit from natural rainwater cleaning. Strongly profiled façades, horizontal details and folded edges can retain water, salts and dirt.

The first signs of coating degradation are therefore often found around:

- horizontal profiles;
- panel edges and joints;
- flashings and windowsills;
- fixings and penetrations;
- sheltered areas below canopies and overhangs.

These zones require particular attention during cleaning and inspection.

Sheltered areas are not automatically protected

Areas below roof overhangs, canopies and projecting building elements receive little direct rainfall. As a result, contamination is not naturally washed away.

Although these locations appear protected from the weather, they may still be exposed to condensation and repeated wet-dry cycles. Accumulated salts and pollutants can therefore remain active for long periods.

Without targeted maintenance, sheltered zones may show premature discoloration, coating degradation and local corrosion.

Accessibility must be considered during design

A correct maintenance regime is only possible when all façade areas can be safely reached. Water features, landscaped zones, loading areas, weak ground conditions or permanently installed equipment can make inspection and cleaning difficult. Inaccessible areas are often maintained less frequently and may age faster than the rest of the façade.

Façade accessibility should therefore be considered during the design stage. Suitable provisions may include access routes, space for mobile platforms, anchor points or permanent façade access systems.

Use the correct cleaning method

Incorrect cleaning can damage coatings, joints and adjacent materials. Aggressive chemicals, abrasive equipment and excessive water pressure should be avoided unless specifically approved by the system manufacturer.

Cleaning should generally begin with the least aggressive effective method, using clean water, a mild neutral detergent and soft, non-abrasive tools.

The selected method should always be compatible with the metal, coating, sealants, gaskets and adhesive connections.

Combine cleaning with inspection

Periodic cleaning provides an ideal opportunity to inspect the complete façade system.

Attention should be paid to:

- scratches and impact damage;
- coating blistering or delamination;
- corrosion at edges and penetrations;
- damaged joints and sealants;
- blocked ventilation openings;
- panel deformation;
- moisture accumulation;
- the condition of visible connections.

Early detection usually allows minor defects to be repaired before they develop into costly façade damage.

Preventive maintenance protects the investment

A durable metal façade depends on more than the original material specification. Long-term performance is determined by the combination of design, coating quality, detailing, installation, accessibility and maintenance.

Regular cleaning and inspection help to:

- preserve coating performance;
- reduce corrosion risk;
- maintain the visual appearance;
- identify defects at an early stage;
- extend façade service life;
- lower long-term repair costs.

At TWEHA®, we approach façade durability as a complete system. Reliable adhesive bonding is an important part of that system, but lasting performance also depends on correct design, professional application and structured maintenance.

A façade remains durable not only because high-quality materials were selected, but because the complete system continues to receive the attention it requires

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