

COVERWORLD PVDF INSPECTION & MAINTENANCE

MAINTENANCE

INSPECTION AND MAINTENANCE OF PVDF (PVF2) COATED STEEL SHEET

In order to meet the Coverworld Group guarantee on the external PVDF coated steel sheets, and extend the life of the materials, it is important that the building is inspected and maintained at least annually including the washing of all slopes and walls. This will need to be recorded on an Inspection and Maintenance Report an example of which is shown at the back.

FACTORS AFFECTING THE LIFE OF PVDF COATED STEEL SHEETS

- Proximity to marine and coastal conditions i.e. exposure to salt water etc.
- Proximity to local pollutants and emissions from industrial, traffic and oil fired plants.
- Extreme or abnormal weather conditions.
- Solar Radiation – the sun affects the P.V.C. coating by ultraviolet radiation and heat
- Colour selected i.e. light colours last longer than dark colours.
- Position & pitch of sheeting i.e. sun affects south facing shallow pitch roof more than north facing surfaces.
- All kinds of damage including handling and impact.
- Defective draining of water on slope and sealing of overlaps.
- Exposure to harmful and corrosive substances.
- Lack of or insufficient inspection, maintenance and washing.

MAINTENANCE OF PVDF COATING

Washing

Rainwater alone is often sufficient to keep exterior surfaces looking clean and bright. However, in order to maximise the lifetime of the organic coated product, it is important that accumulated dirt and debris that have not been washed away by normal rainfall should be removed regularly by cleaning. This reduces the risk of 'poultice' corrosion. Washing may be carried out with a hose and a soft bristled brush, using fresh water. In areas where heavy industrial deposits dull the surface, a solution of fresh water and a good quality household detergent or proprietary cleaner may be applied to ensure thorough cleaning. For household detergent, use a 10% solution; for proprietary cleaners, follow the manufacturer's instructions. Always rinse thoroughly with clean water.

Caution

When cleaning please note the following:

- Concentrations of cleaners stronger than those recommended can damage the coating.
- After cleaning, rinse thoroughly to remove all detergents and cleaners.
- Organic solvents and abrasive cleaners should be avoided when cleaning any coated surface, Caulking compounds, tar and similar substances may be removed with mineral spirits, but wash the surfaces thoroughly afterwards.
- Always clean coated surfaces from top to bottom, and rinse immediately and thoroughly with fresh, clean water.
- Over cleaning or scrubbing may do more harm than good.



COVERWORLD
UK LIMITED

COVERWORLD PVDF INSPECTION & MAINTENANCE

MAINTENANCE

Mould Growth

Some types of local environment are particularly conducive to mould growth, e.g. areas of wet, dark, wooded surroundings or low lying marshland. In these areas mould will grow even on inert materials such as glass. Mould can be removed by treating the affected surface with a basic solution of the ingredients listed below (by weight), which should be available from local chemical suppliers. Before using the first three of the following ingredients, you should refer to the manufacturer's health and safety information.

Good quality household detergent or proprietary cleaner	0.5
Trisodium Phospahte	3.0
5% Sodium Hypochlorite Solution	25.0
Fresh Water	71.5
	100.0

Before applying this mixture, wash the organic coated product first, as described under the **Washing** section, then apply the mixture to all surfaces using a low pressure spray or brush. All surfaces must then be rinsed with cold water within 24 hours. The organic coating has been specially formulated to resist fungal growth; in most areas of Europe this should not therefore be a problem.

Touch Up

During inspection, you may find that the organic coated product has suffered some damage. It is better not to treat the surface of the organic coated product if it has been slightly scuffed. If it is scratched more deeply, say down to the substrate, the damage can be easily repaired by applying standard touch up paint. It is important to ensure that the applied paint is no wider than the original scratch. To achieve this, the paint should be applied with a medium to fine artists paintbrush. Touch up paints are, of necessity, air drying; whereas the original coating was oven dried; over time they will change colour differently from the original coating. For this reason, it is good practice to keep the applied area as small as possible.

Treatment Of Edge Corrosion

Corrosion at the edges of the profiled steel cladding should be rectified as described below.

- Cut and remove, or abrade, any loose organic coating back to solid metal.
- Abrade to bright, solid metal, ensuring that the surface is not polished. Thoroughly clean and dry these surfaces before applying the specified materials, which must be applied as recommended by the paint system manufacturer.
- Coat the prepared areas with the appropriate anti corrosive primer recommended by the materials supplier.
- When the first primer coat has dried, apply a second primer coat in a neat band to the prepared area so that the primer extends beyond the prepared area, covering the original surface.
- Apply a top coat to the dry, primed area.

Over Painting Of External Sheets

Surface preparation and over painting of cladding should be a carried out by specialist contractors using approved maintenance paints. Cleaners, touch up systems and materials for treatment of edge corrosion or over painting are generally available from reputable paint manufacturers. Do not hesitate to contact our technical department if necessary.



COVERWORLD
UK LIMITED

COVERWORLD PVDF INSPECTION & MAINTENANCE

ANNUAL INSPECTION AND MAINTENANCE

This inspection is based upon good practice. It should be carried out annually throughout the lifetime of the building. The items marked with asterisks should be checked soon after the building has been erected and during every annual inspection. You should watch for changes in the condition of the coating, particularly as you approach the end of the Period To Re-Paint Decision (PRD), which is the minimum length of time before a building owner needs to consider whether to re-paint the cladding.

TO BE CHECKED	REQUIRED ACTION
Blocked Gutters Blockage may cause overflow into a building	Clean and wash out any blockage
Build Up Of Debris A build up can cause 'poultice' corrosion, i.e. the debris retains water forming a poultice.	Remove debris
Dirt Retention In Areas Of Cladding, Not Washed Naturally By Rainwater This affects the appearance of the building and could, if left, cause breakdown of the coating.	Wash down. See Washing section.
Mould Growth This rarely occurs, but can arise in extreme conditions and affect appearance.	Wash down and treat as described under Mould Growth section.
Local Damage * If the damage has broken through the protective paint coating, this could cause corrosion of the substrate.	Assess extent and type of damage. Actions may involve: 1. Touching up affected area. See Touch Up section. 2. Over painting affected area. See Over Painting section. 3. Replacement of damaged sheets. Contact the original sheet supplier.
Drilling Swarf, Rivet Stems & Other Fixing Debris * These can rust and cause staining.	Remove debris
Condition Of Fasteners * Faulty or inappropriate fasteners can cause leakage, or rust staining on the surface of the cladding, or both.	Replace faulty fasteners and any missing caps.
Corrosion Of Cut Edges Corrosion of cut edges at sheet overlap and at overhangs can, if ignored, spread up the sheet.	Treat as described under Treatment Of Edge Corrosion section.

*To be checked soon after the building has been erected and during every annual inspection.

MAINTENANCE

