



Construction Metal Products, Inc.

Maintenance and Care Guide

Construction Metal Products, Inc.
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With a little care and attention during service, your CMP Roof System will provide an extended service of life. While durable, factory-applied finishes for metal panels will last many years longer than ordinary paints, they should be cleaned thoroughly on a routine basis whenever the finish is not washed by rain. We recommend that you follow our simple maintenance schedule. By following our recommendations you will be assured of the maximum trouble-free lifespan of your building.

Periodic maintenance of the exterior will depend on the location of your building.

The following table gives recommended periods but can be varied to suit particular environments based on local or practical experience.

Building Location	Maintenance Period
(a) Up to 5 km from the sea	2 Months
(b) High Pollution industrial area	2 Months
(c) Medium pollution industrial area	3 Months
(d) Areas of high humidity	4 Months
(e) Low pollution industrial area	6 Months
(f) Dry, desert areas	8 Months

Preventive maintenance should commence immediately after a project is erected, modified, or repaired.

Inspection:

1. Check for any debris that may have been left on top of panel or trim. Examples of this are ferrous items such as screws, pop rivets, nails, drill sward, sheet metal off-cuts, tin cans, etc. Large or heavy items should be removed by hand to avoid damaging the paint or zinc layer on the panel. The remaining smaller items may be swept off with a soft nylon brush. Please note this check should be made after any trade has worked on the building, e.g., electricians, plumbers, air conditioning technicians, and steel erectors.
2. Check for sand or dirt build up. These retain salt and moisture and will rapidly breakdown the paint and zinc layers resulting in corrosion of the base metal.
3. The most vulnerable areas of the building are:
 - a. Gutters
 - b. Roof Sheets
 - c. Sheltered Areas.
 - d. Top portion of walls sheltered by roof overhangs or gutters.
4. Sand and dirt should be washed off with clean desalinated water and a soft nylon brush. Clean from top to bottom and give a final rinse with desalinated water when completed. Ensure no water is trapped anywhere. See the cleaning section for detailed instructions.
5. Check the base of wall panels to ensure the ground level is at least 150mm below the bottom of the panel. If wind blown-sand has built up at the base of the wall, it should be removed. If plants/ shrubs etc. are around the building, make sure they are not touching the wall panel, particularly thorn-type bushes.

6. Check all high traffic areas of the roof where maintenance personnel repeatedly traverse the roof surface. Foot traffic can be a major cause of damage. If traffic on the roof is routine, consider installing a walkway to protect the panels.
7. Check all equipment, which is located through or adjacent to any panel (Roof or Wall). Ensure there is no moisture built up on or near the panel. If there is, then corrosion is inevitable. If this condition exists, then make modifications to avoid it. The following situations are examples of conditions to be avoided.
 - a. Water run-off from water services or air conditioners.
 - b. Copper pipes fastened directly to the steel panel.
 - c. Open water storage tanks or ponds adjacent to the panel.
 - d. Steam outlets adjacent to the panels.
 - e. Acid storage areas adjacent to the panels.
8. Standard gutters and Valley gutters.
 - a. Regular checks should be made and all rubbish and sand should be removed.
 - b. Flush the gutters with water
 - c. Check that downspouts are clear.
 - d. Check that downspouts have adequate drainage away from the building.
9. If minor damage occurs to the sheeting or trims, and paint touch-up is required, then the following procedure should be followed:
 - a. Abrade the affected area.
 - b. Clean down with a solvent.
 - c. If based metal exposed, apply one coat of a zinc chromate primer. If base metal is not exposed then the primer is not required.
 - d. Apply one coat of available touch-up paint.

Cleaning:

Cleaning restores the appearance of the panels, making repainting unnecessary, and maintains a pleasing appearance, as well as removing the buildup of corrosive materials. Applications requiring maintenance cleaning often include soffits, siding under eaves, and the undersides of eave gutters.

In many cases, washing the painted surface with clean water from a garden hose will remove most of the dirt and accumulated deposits. Ideally, washing should be done at least every six months and more frequently in coastal areas where marine salt spray washing is ineffective in cleaning stubborn dirt, mild detergents, or household ammonia solutions can be used as described below. In all cases, test a small unobtrusive area for color-fastness before cleaning large areas.

- Use one cup of Tide® (or other common detergent containing less than 0.5% phosphate) dissolved in five gallons of warm water. NOTE: Detergents containing greater than 0.5% phosphate are not recommended for use in general cleaning of building panels.
- OR use one cup of household ammonia dissolved in five gallons of water at room temperature. Never mix ammonia with any kind of bleach.
- Never blend cleaners and bleach yourself. If bleach and detergent are required, use detergents containing bleach.

Using either solution, work from the top to the bottom of panels with a well-soaked soft cloth, sponge, brush with very soft bristles, or low-pressure spray washer to clean the surface. Washing from the top down avoids streaking. Application should be gentle to prevent shiny spots. Scouring powders or industrial solvents are not recommended, since they may damage the paint film. Solvent-containing cleaners such as Fantastic® are very effective and can be used. If mildew or other fungal growth is a problem and cannot be removed as described above, detergent containing bleach, such as Tide® with Bleach, is recommended. The surface should be thoroughly rinsed with water after cleaning to remove traces of detergent. If the building is in an area of industrial pollution or close to a marine environment than water alone may not be enough. Salts and other deposits build up at the formed corners of panels and quickly breakdown hardness of the layer increases making removal more difficult. In this case, the period between maintenance operations should be shortened and a mild detergent should be added to the initial washing water.

Solvents:

CAUTION: Solvent and abrasive type cleaners as they can do more harm than good by wearing both the paint and zinc layers. Only use when cleaning solution listed above is ineffective.

Most organic solvents are flammable and/or toxic, and must be handled accordingly. Keep away from open flames, sparks and electrical motors. Use adequate ventilation, protective clothing, and goggles.

Solvents that may be used to remove non-water soluble deposits (tar, grease, oil, paint, graffiti, etc.) from fluoropolymer surfaces include:

A. Alcohols

- Denatured alcohol (ethanol)
- Isopropyl (rubbing alcohol)
- Methanol (wood alcohol)

B. Petroleum Solvents and Turpentine

- VM&P Naphtha
- Mineral Spirits
- Kerosene
- Turpentine (wood or gum spirits)

The above alcohols and solvents have no permanent effect on fluoropolymer painted surfaces.

C. Aromatic and Chlorinated

- Xylol (Xylene)
- Toluol (Toluene)
- Perchlorethylene (Perclene)
- Trichlorethylene (Triclene)

The above solvents should be used with caution on any fluoropolymer painted surfaces. Limit contact of the fluoropolymer surface with solvent to five minutes maximum and test the effects of the solvent on a small area before using over the entire surface.

D. Ketones, Esters, Lacquer, Thinner, Paint Remover

- Methyl Ethyl Ketone (MEK)
- Methyl Isobutyl Ketone (MIBK)
- Ethyl Acetate (Nail Polish Remover)
- Butyl Acetate
- Lacquer Thinner
- Paint Remover (non-flammable)
- Acetone (do not use acetone on painted surfaces)

The above solvents should be used very cautiously on a fluoropolymer painted surface. Limit contact of the fluoropolymer surface with solvent to one minute maximum and test the effects of the solvent on a small area before using over the entire surface. Note: There are many formulations of paint remover on the market. It is possible that some may remove the fluoropolymer surface. Proceed very cautiously in use of any paint remover. Metal supplier and coating manufacture are not responsible for damage from unrestricted use.

E. Chemical Solutions

- Sodium Hypochlorite Solution (Laundry Bleach, Clorox)
- Hydrochloric Acid (Muriatic Acid)
- Oxalic Acid
- Acetic Acid (Vinegar)

Hydrochloric or muriatic acid, diluted with ten volumes of water, may assist in removing rust stains from fluoropolymer surfaces. Limit contact to five minutes. Caution: acid solutions are corrosive and toxic. Flush all surfaces with copious amounts of water after use. Oxalic acid solution or vinegar may be used for the same purpose. Flush with water.

Graffiti:

Graffiti presents a special problem because of the many possible agents used, generally aerosol paint. It is best to try the less active solvents first (Solvent Group A, B, C) then the stronger solvents (Solvent Group D). If none of these are satisfactory, it may be necessary to resort to touchup, repaint, or replacement, depending on the extent of the damage.

Warranty:

Misuse of any of the cleaning agents listed above will result in a voiding of warranty for the surface affected.

SAFETY

Roof Safety:

Extreme caution should be exercised when working on roofs.

- Use only ladders, which are long enough to reach one meter above the step off point.
- Always secure the ladder to the building and make sure it is on a firm base.
- Do not step on skylight panels.
- When walking on the roof, step on the low corrugations, not on the high corrugations.
- Stepping on the high corrugations can damage the sheets. Walk along the screw line where possible.