ARTspan

Insulated Metal Panels

CLEANING, MAINTENANCE, AND REPAIR GUIDE

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CLEANING, MAINTENANCE & REPAIR

Upon delivery of the ARTSPAN Insulated Metal Panels it is important for the contractor and consumer to be aware of the following care and maintenance protocols;

General Care

We suggest minimum visual inspection to be done annually for any changes in appearance to paint finish (discoloration, fading, peeling, flashing, staining, surface damage) and panel condition (creases, bulges, bumps, or dents).

- **Gutter & downspouts:** clear debris from gutter & downspout to them keep free flowing at all times.
- **Foliage:** contact with wall panels can produce scratches in the paint surface. Keep bushes, trees, and other foliage trimmed back from panel surfaces.
- **Loose/damaged trim:** trim should be reattached and/or replaced with suitable fasteners. Replacement trims, fasteners, and accessories can be obtained through your building supplier.
- **Landscape:** prevent landscaped materials such as soil, mulch, rocks, etc from contacting panels and trims. Panel corrosion can occur from being continuously exposed to moist/wet conditions. These materials can also affect panel drainage at the base of the walls.

Strippable Film

Panels are delivered with a protective strippable film. This film provides adequate protection to the panels' metal facings during manufacturing, shipping, and handling.

- Avoid exposure of the film to direct sunlight for more than 24 hours.
- Remove all strippable film before, during, or directly after installation.
- Film must be removed from all installed panels and trims at the end of the day.
- Loosen film along top or bottom edge of panel and peel off at 45-degree angle.

Failure to remove film within this period, or storing panels for more than 60 days, may result in the film being difficult to remove and adhesive residue. The manufacturer and distributors of the ARTSPAN IMPs will not be responsible for film removal or cleaning as this is the responsibility of the contractor.

Adhesive residue and stuck film can be removed using specialty adhesive removers available at most hardware and cleaning supply stores (e.g. Oil-Flo Safety Solvent or Watts Removal products).

Steel Debris

Steel debris or particles which are not removed from the panel surface following construction will rust causing an unsightly stain that can be difficult to remove.

Steel debris include but are not limited to metal particles left from cutting and/or drilling operations, weld splatter from welding operations and construction materials left on the roof; such as nails, screws, etc.

Prevention of steel debris staining is the responsibility of the installer. Stain prevention is critical; reducing the time and costs associated with cleaning/repairing or panel replacement.

Cleaning

ARTSPAN IMPs are an engineered product manufactured under carefully controlled conditions consisting of painted metal facings on both the exterior and interior of the panel. To maintain the attractive appearance of these panels, intermittent cleaning is necessary, such as the removal of foreign substances (dirt, dust, mortar, chalk, excess sealants, etc.) from the panel surfaces.

Proper cleaning procedures for painted metal buildings as detailed in CSSBI Sheet Steel Facts #3 under Maintenance, recommends:

- A thorough building clean-up after completion of construction should be conducted to remove all debris, metal filings, metal fines, etc. from walls and roofs.
- An occasional cleaning of prefinished material can extend the service life and help to maintain the appearance of the finish. For protected areas (i.e. overhangs) an annual spring cleaning is recommended. Simply washing with plain water is often sufficient. Waxing is an additional method of prolonging the service life of prefinished material.
- In areas where heavy dirt deposits dull the surface, a solution of water and detergent may be used: 100 ml (1/3 cup) of a typical laundry powder detergent per 4 litres (1 gallon) of water. A soft bristle brush should be used for scrubbing followed by a clear water rinse.
- Mildew may occur in areas subject to high humidity. To remove mildew along with the dirt, the following is suggested: (1) 100 ml (1/3 cup) laundry detergent (2) 200 ml (2/3 cup) trisodium phosphate (TSP) (3) 1 litre (1 quart) 5% sodium hypochlorite solution (laundry bleach) (4) 3 litres (3 quarts) water. Use in a well ventilated area and follow with a clear water rinse.
- Solvent and abrasive cleaners should be avoided. Caulking compounds, oils, grease, tars, wax and similar substances can be removed with mineral spirits applied only to the affected areas. Detergent cleaning and thorough rinsing should follow the use of solvent.

Field Painting

It's important to consult with your ARTSPAN IMP distributor prior to repainting prefinished panels. They can assist by providing factory approved compatible repaint recommendations.

It's also recommended that you consult a local professional painter, experienced and equipped to do the job correctly.

General repaint procedures should be followed as detailed in CSSBI Sheet Steel Facts #4 under Repaint Procedures and Recoatability tests:

Repaint Procedures

The purpose of every repaint procedure is to prepare the surface to be painted to achieve maximum "recoatability" and intercoat adhesion; that is, to make certain that the new paint sticks to the old surface. Some types of surface cleaning, such as described in CSSBI Sheet Steel Facts #3, should be employed to remove loose surface dirt, chalk, mildew, etc., to facilitate maximum repaint adhesion.

Special attention and treatment must be given to areas that may have already begun to corrode. In those areas, all traces of white, black or red rust must be removed, usually with wire brushing, and primed with a properly formulated corrosion resistant "zinc rich", or similar primer, before repainting with the desired colour coat.

Recoatability Test

To be certain an old surface is ready to accept repainting, it is recommended that a "recoatability test" is run. The following procedure has served the industry well for a number of years:

1) Clean and otherwise prepare several small test areas representative of the entire surface to be repainted.
2) Apply a coat of the desired repaint according to the manufacturer's instructions. Allow each test area to dry according to the manufacturer's instructions.
3) After drying, using about 200 mm of gray "duct" tape for each area to be tested, firmly smooth about 75 to 125 mm of the tape onto the repainted areas. Rapidly pull off the tape, attempting to remove the recently applied air-dried coating.
4) Unsatisfactory adhesion/compatibility is indicated if the new coating is removed with the tape.
5) If an unsatisfactory test occurs, it may be necessary to conduct a different or additional cleaning procedure, apply an intercoat adhesion primer, or select a different type or different manufacturer's repaint coating.
6) Repeat the "recoatability test" until satisfactory results are obtained.

Quality Paint Means a Quality Job
Remember, typical field-applied air-dry paint finishes usually demonstrate permanence and performance that correspond to their purchase price. Retail house paint applied to commercial/industrial building will perform like retail house paint and may not give expected performance. The cost of house paint may be lower initially, but because it is not specifically formulated to adhere to metal siding, it will not last nearly as long or perform nearly as well as systems specifically design for repainting sheet steel.

Thermal Blisters

The blowing agent used in the production of the foam core substrate may produce gas bubbles on the steel face. This may cause sporadic blisters or oblong bubbles that are a rare, but industry-wide occurrence in the IMP industry. These blisters tend to be a combination of face delamination and release of blowing agent gases building up behind the steel face. The gases can expand under extreme temperatures to create a bubble or blister on the panel.

To reduce the chance of blisters forming after installation, proper handling of individual panels must be followed. When handling, panels must be turned on edge first and supported at each end. Do not move panels in a flat position. Excessive flexing during handling and moving can distort the facing and lead to delamination and formation of thermal blisters.

Any signs of blisters or gas bubbles must be addressed and be repaired as soon as possible as they will continue to expand until corrected. Visual appearance of blisters or bubbles does not affect the overall performance nor does it compromise the panels strength or design loads. This is not a cause for rejection of the panels.

These areas can be repaired by drilling a small 1/16-inch hole near the bottom of the bubble in the exterior face. This will allow the trapped gas to be released. It may take a day or two of thermal cycling before the steel face relaxes. Once the gas is released, the hole must be addressed in a couple of ways.

- Hole can be filled with colour matched or paintable exterior grade polyurethane sealant
- Or filled with automotive body filler and covered with touch-up paint.

Damaged Finish Repair/Repairing Field Finish Damage

It is important to understand any repairs completed on IMP may leave a noticeable area after the repair is completed and is dependent on the skill and expertise of the person carrying out the repair. For high impact or heavy traffic areas, additional products can be installed to the face of IMP walls to protect the panels including; steel cladding, light weight brick or stone, or phenolic panels. Contact your ARTSPAN IMP distributor or your builder for attachment requirements.

Clean surface to remove dirt, dust and foreign substances from the panel surfaces prior to repairs. Panels requiring cleaning can be low power washed or hand washed with mild detergent and rinsed with clean water. Use foam brush or cloth rags. Do not use abrasive cleaners, pads or brushes.

Graffiti

The paint finish used on ARTSPAN IMP panels is a high quality PVDF coating. Spray painted graffiti can be removed using off the shelf anti-graffiti removal kits and cleaning products without damaging the finish by following the manufacturer's instructions for steel surfaces. For high graffiti problem areas, a suitable clear acrylic anti-graffiti coating can be applied at the owner's discretion.

Scratches

Minor scratches that do not penetrate into the Galvalume coating or expose the bare base steel, may not require a touch up as they tend not to be visible beyond 10 feet under good lighting conditions.

Major scratches that penetrate into the Galvalume coating to bare steel must be repaired immediately using touch-up paint. A high-quality PVDF paint or paint formulated for metal surfaces should be used. However, gloss levels may vary from the original factory finish. Apply touch-up paint using a small brush equal to the thickness of the scratch. Keep paint within the scratched area only.

Dents

Minor dents will not affect the performance properties of the panels including thermal and moisture protection and are an aesthetic issue and may not require repairing depending on visual location.

Major dents or minor dents that are an aesthetic issue due to location can be repaired similar to automotive body repair. This may include auto body suction kits for small round dents or automotive putty or similar filler material that will require; surface preparation, texturing of filler material, sanding and repainting of the area. Texturing to match the steel embossed face can be done by pressing a piece of identical stock or trim material into the filler while still workable and before setting. Paint touch-up for small to medium areas should use a high-quality paint that is colour matched by the paint supplier and should be applied by air brush.

Panel Face Repair

For damaged areas with long or multiple dents, the entire area can be covered with matching flat or profiled single skin sheets. Covering should extend the full width of the panel, edge to edge. Typical single skin profile sheets are supplied a minimum of 3-feet in length. Flat sheets must have closed hems on all exposed sides. Profiled sheets must have colour matched touch-up paint applied to all exposed steel edges prior to installation.

Dry fit cover sheet, mark and pre-drill pop rivet holes 3/4-inch to 1-inch from the outer edge of the patch and a maximum of 8-inches on centre. Use industrial metal-to-metal adhesive or tape along with colour-matched pop rivets. Apply a thin line of paintable or colour-matched polyurethane sealant around the perimeter of the cover plate.

Holes

Small holes less than 1/2-inch (13mm) in diameter, can be filled with colour matched or paintable exterior grade polyurethane sealant or fill with automotive filler and covered with touch-up paint. If the hole penetrates the insulation or if the insulating foam has been removed, this must be replaced with a suitable polyurethane spray foam insulation before repair is started.

Large holes less that 12-inches (300mm) in diameter will require a cover plate installed with pre-drilled, colour matched pop rivets. Missing insulation must be replaced with a suitable polyurethane spray foam. Cover plates can be from flat stock material to match profile, colour and texture of the repair area. Cover plates should overlap panel face by minimum of 2-inches and must have closed hems on all exposed edges. Dry fit cover plate, mark and pre-drill four pop rivet holes 3/4-inch to 1-inch from the outer edge of the patch. Apply a continuous 1/4-inch diameter bead of polyurethane or butyl sealant along the interior side of the cover plate located 3/4-inch from outer edge. Apply a second, 1/4-inch diameter bead around the hole, creating two rows of sealant behind the cover plate. Apply the cover plate and attach with pop rivets and clean off any excessive sealant. A thin line of paintable or colour matched polyurethane sealant must be applied around the perimeter of the cover plate. For cover plates made with profile material and without closed hems, colour matched touch-up paint must be applied to all exposed steel edges prior to installation. A thin line of clear polyurethane sealant must then be applied around the perimeter of the profiled cover plate after installation.