CABIN UNITS

QUALITY TEAM

PERIODIC MAINTENANCE AND REPAIR INSTRUCTIONS FOR PAINTED PRODUCTS

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GENERAL INFORMATION

Paint coatings deteriorate over time due to external environmental conditions (sun, rain, humidity, salt, wind, etc.) and begin to lose their protective properties. This negatively affects the aesthetic appearance of the product and shortens its structural lifespan, creating a breeding ground for corrosion. Regular periodic maintenance and repairs are crucial to maximize the lifespan of the products and maintain surface protection.

OCCUPATIONAL HEALTH AND SAFETY

To prevent injuries and chemical/physical exposure during maintenance, cleaning, and repair operations, the following occupational health and safety (OHS) rules must be strictly followed:

1. When applying spray paint, zinc spray, thinner, or solvents in enclosed/poorly ventilated areas, an A2P3 type mask should be worn.
2. CE-certified protective goggles and face shields should be used to protect against liquid and spray splashes.
3. Hand Protection: Nitrile gloves should be used during chemical, painting, and lubrication processes; mechanically protective leather work gloves should be used for wire brushing and sanding.
4. Lightweight roof panels should not be stepped on directly due to the risk of collapse and sliding.
5. Non-slip, EN 131 certified ladders or mobile scaffolding should be used in the works.
6. In critical roof work, a fall arrest harness, either attached to the waist or integrated into a vertical lifeline, must be worn.
7. The Safety Data Sheet (SDS) forms of spray paints, thinners, and solvents should be reviewed beforehand.
8. Forced ventilation must be provided in enclosed container applications; open flames and sources of sparks should be kept away.
9. Paint cans, spray cans, paint thinner-soaked rags, and chemical waste should not be mixed with household waste but should be delivered to designated hazardous waste disposal areas in accordance with regulations.

THE EFFECT OF NATURAL ENVIRONMENTAL CONDITIONS ON PAINT

Sunlight (Ultraviolet (UV) radiation, rain, high humidity, salty atmospheric sea air, and industrial chemical pollutants can cause the paint layer to dull, crack, flake, or peel over time. Additionally, UV radiation weakens polymer bonds, reducing surface resistance and increasing the risk of corrosion.

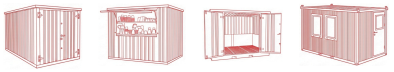
Possible Error Conditions

Physical Impacts and Risks: For example, a sharp object falling on the ceiling (tree branch, stone, hail, etc.) or friction that may occur during transportation/assembly can scratch/damage the top paint layer and the zinc (galvanized) coating underneath, making the sheet metal surface completely vulnerable to corrosion.

Oxidation and Peeling: When these unprotected areas are exposed to rain, moisture, electrochemically reactive substances (leaves, grass, soil, etc.), or pollutants (oil, wastewater, gasoline, diesel, smoke, natural gas, cement dust, etc.) for a long time, the paint may blister, peel, or the underlying metal may rapidly oxidize, forming red rust. Red rust formation reduces the thickness of the metal, compromising its structural integrity.

Recommendations for Error Cases

To prevent potential corrosion, the damaged area should be painted immediately using spray or touch-up paint that exactly matches the product's original RAL/color code. The area to be repaired must be completely free of mud, dust, oil, dirt, and moisture (clean, free of grime, and dry). Furthermore, suitable weather conditions for painting—rain-free, windless, away from direct sunlight, and within an appropriate ambient temperature range—are essential for a successful finish.



In the initial application, the color tone of the spray paint may not appear exactly the same as the existing product color due to atmospheric effects and sunlight exposure; however, over time, the tones will become closer due to the effects of environmental conditions and natural wear and tear.

DAMAGES THAT MAY OCCUR DURING INSTALLATION AND USE

Mechanical impacts, friction marks, abrasions, and deep scratches that may occur during product transportation, on-site assembly, or daily use can tear the paint layer, completely destroying the protection of the underlying metal. When these unprotected metal surfaces come into contact with atmospheric moisture and oxygen, the corrosion process begins rapidly.

Recommended steps to repair existing damage and prevent further corrosion:

1. The damaged area must be thoroughly cleaned of loose paint residue, rust layers, and dirt using a wire brush or light sandpaper.
2. After cleaning and drying the surface with a suitable solvent or cloth, the product should be applied in two coats with touch-up spray paint matching the original color and RAL code, in suitable environmental conditions protected from moisture, dust, and direct sunlight. Sufficient drying time should be allowed between coats.

CLEANING PAINTED SURFACES

Environmental pollutants accumulate on the surface, weakening the protective layer of the paint. Therefore, regular cleaning of painted surfaces is recommended. The frequency of cleaning depends on the corrosiveness of the area and is at the user's discretion; however, it is generally recommended to do it at least once a month.

Cleaning Rules and Recommendations:

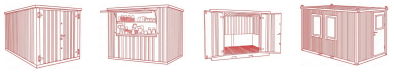
1. Material Selection: All painted surfaces should be wiped slightly damp using a soft sponge or a soft-bristled brush. Avoid using stiff, abrasive brushes or scouring pads that could scratch the surface.
2. Chemical Limits: Corrosive chemicals, strong solvents (paint thinner, acetone), highly acidic or alkaline substances, and bleach should absolutely not be used.
3. Detergent Type and pH Range: Neutral and gentle household detergents with a pH range should be preferred as cleaning agents.
4. Dilution Requirement: Detergent should not be applied directly or in concentrated form to the surface; it must always be diluted with water.
5. Rinsing and Drying: After cleaning, all surfaces should be rinsed thoroughly with plenty of fresh water (clean tap water) and completely dried, ensuring no damp/wet areas remain.
6. Damage Assessment: Any paint cracks or scratches noticed during cleaning should be immediately touched up with spray paint.
7. Pressure Washing Limit: If a pressure washer is used, the water pressure should be at a level that will not damage the surface, and the spray nozzle should be held at least 40 cm away from the surface. High pressure may cause the paint to peel off at the edges.

INSIDE THE CONTAINER AREAS AND STACK PROTECTION

The interior surfaces and internal structural elements of the product are protected by a zinc (galvanized) coating. However, in welded areas, the zinc layer loses its protective properties due to high heat, creating a risk of corrosion. This corrosion risk increases exponentially, especially in environments with high humidity or inadequate ventilation. Therefore, weld points, joint details, corner joints, and inner edges where the zinc layer thins should be regularly visually inspected. Early detection of corrosion is crucial, and necessary preventive measures should be taken promptly.

Container Interior Maintenance and Important Considerations:

1. Internal welded and spot-welded areas should be regularly inspected, and zinc spray should be applied at the onset of corrosion.
2. The galvanized surfaces on the interior can oxidize due to humidity and temperature differences in enclosed spaces. Cold galvanizing/zinc spray should be applied where necessary.



3. Free airflow (circulation) must be allowed on galvanized and painted surfaces.
4. Water accumulation/pooling on surfaces must be absolutely prevented, and proper drainage of the water must be ensured.
5. Tightly packed containers and products should be quickly separated after transportation.
6. Stacking should be avoided in enclosed, unventilated, and humid environments.
7. Continuous contact with wet/damp materials (soil, grass, mud, etc.) should be avoided.
8. It is absolutely essential to prevent the OSB (Oriented Strand Board) wood panels used in the base structure from getting wet or damp.

ROOF RAINFALL DRAINS AND GUTTERS

Rain gutters and drains on the roof, which provide water drainage, can become clogged due to fallen leaves, mud, and environmental dust. The resulting water accumulation shortens the life of the paint and causes water to seep in.

Cleaning and Painting

TThe main gutters should be thoroughly cleaned at periodic intervals, and accumulated debris should be removed. If, during post-cleaning inspections, areas showing signs of paint damage, scratches, wear, or rust are identified, touch-up spray paint or protective spray in the original color should be applied immediately to prevent further corrosion and restore surface protection.

PANEL WATER DRAINS

The drainage holes located at the bottom of the panels can become clogged due to environmental pollutants. Clogged drainage holes lead to water pooling at the base of the panel, reduced paint durability, and water leakage.

Care

The drainage holes and drain lines located at the bottom should be checked periodically and thoroughly; blockages caused by the accumulation of dust, mud, leaves, or environmental pollutants should be removed to ensure free water drainage. During this cleaning, which is carried out to prevent water pooling and moisture accumulation at the base of the panel, any corrosion, paint peeling, or wear observed on the surfaces should be addressed immediately with appropriate surface preparation (cleaning and drying) followed by touch-up spray paint or zinc spray.should be implemented.

MAINTENANCE OF CONNECTING ELEMENTS

Fasteners

Even if the fasteners (bolts, screws, nuts, washers, etc.) used during installation remain inside the product and are not in direct contact with external factors, they can still oxidize due to changes in humidity and temperature. Fasteners should be checked periodically, and zinc spray application should be done if necessary.

Fasteners that are severely corroded should be removed and replaced immediately. Applying protective grease or spray to the bolt heads after tightening is recommended.

Hinge Maintenance

Hinges used on doors and canopy panels require periodic maintenance to protect them from external environmental conditions (rain, humidity, dust, dirt, and temperature changes), ensure smooth operation without jamming, prevent squeaking, friction-induced mechanical wear and corrosion, and extend the life of the hardware. Regular hinge maintenance preserves the functionality of door and panel mechanisms.

1. It is recommended that hinge maintenance be performed periodically, once a month; this interval should be shortened in cases of heavy use or harsh atmospheric conditions.
2. For lubrication, WD-40, which has rust-dissolving and protective properties, or a suitable machine oil with high penetration capabilities should be preferred.
3. After applying the oil, any excess oil that accumulates on and around the hinge surface should be gently wiped away with a slightly damp, lint-free cloth to prevent dust and dirt buildup.
4. During maintenance, touch-up spray paint should be meticulously applied to any scratches or abrasions detected on the surface to maintain corrosion resistance.