

POLYCARBONATE PRODUCTS

Care and Maintenance

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This document covers the care and maintenance of the following polycarbonate sheet products:

PALSUN®

SUNLITE®

PALGARD™

PALSHIELD™

- SUNTUF®
- SUNOPAK™
- SUNTOP[®]

SUNPAL®

SUNGLAZE™

Palram Industries Ltd.

Plants certified to ISO 9001:2008

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General Polycarbonate Cleaning Guidelines

- Never use abrasive or high alkaline cleaners on any Palram polycarbonate product.
 - Do not use cleaners on Palram polycarbonate for an extended periods of time. Rinse immediately with clean, cold water.
- Do not apply cleaners in direct sunlight.
- Never use sharp objects, wipers (squeegees) or razors on polycarbonate.
- Do not clean with gasoline.
- Always practice safety first and never step directly on a polycarbonate panel.
- Always test cleaners in a small inconspicuous area prior to cleaning entire panel to prevent adverse results.
- When using a pressure washer, do not allow the spray tip to come too close to the panel, as it could have enough pressure to penetrate or tear the panel.
- · Avoid dry cleaning, as sand and dust particles clinging to the exterior of the panels may scratch the surface.
- Avoid cleaning the interior surface of SUNTUF Plus and SUNLITE Plus, as the effectiveness of the anti-condensate coating can potentially be diminished, depending on the cleaning method or material used.

General Cleaning Instructions for Products Listed on the Left

The Palram polycarbonate products listed on the left can be easily cleaned utilizing a soft sponge or cloth made from 100% cotton, lukewarm water and a mild dish washing detergent. All surfaces should then be rinsed with cold water and dried with a soft cotton cloth to reduce water spotting. In some instances this procedure may be inadequate and require the use of additional cleaning agents. The agents listed below have all been approved for use at room temperature.

Chemical Cleaners:

- Methyl alcohol
- Ethyl alcohol
- Heptane
- Butyl alcohol

- Isopropyl alcohol • Petroleum ether (BP 65°)
- VM&P Naphtha
- Hexane

As in the case with all thermoplastic materials, certain chemicals can cause structural as well as surface damage, so precautions must to be taken to avoid any aggressive cleaning agents. Should you wish to use a different cleaning agent not listed above, please contact a Palram representative to inquire about our in-house chemical compatibility testing service.

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In as much as Palram Industries has no control over the use to which others may put the material, it does not guarantee that the same results as those described herein will be obtained. Each user of the material should make his own tests to determine the material's suitability for his own particular use. Statements concerning possible or suggested uses of the materials described herein are not to be construed as constituting a license under any Palram Industries patent covering such use or as recommendations for use of such materials in the infringement of any patent. Palram Industries or its distributors cannot be held responsible for any losses incurred through incorrect installation of the material. In accordance with our company policy of continual product development you are advised to check with your local Palram Industries supplier to ensure that you have obtained the most up to date information.



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Care and Maintenance (continued)

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Specific Cleaning Instructions for Large Roofing and Wall Applications

Palram polycarbonate products used for large commercial roofing and wall applications (SUNTUF, SUNTUF Plus, SUNOPAK, SUNTOP, SUNLITE, SUNLITE Plus) can be cleaned in the same fashion as mentioned previously; sometimes, due to the sheets' physical installation location, a different cleaning apparatus may need to be utilized. When polycarbonate products are installed in such applications, utilization of a pressure washer with a fanned nozzle and mild detergent can assist in removing dirt buildup, algae and mold from the panels. This also eliminates the need to step directly on panels while attempting to clean unreachable areas.

Another method of cleaning large structures requires the use of a long-poled, car or RV washing pad. First, soak the panels with a mild soap and water solution, then proceed to scrub the panels with the car washing pad. Finish with a clean, cold water rinse.

GRAFFITI REMOVAL ON PALGARD™ / PALSHIELD™

Recommended for these two products only; not recommended for the products listed on the left.

The abrasion resistant surface of PALGARD and PALSHIELD sheets provide increased protection against chemical attack. Even graffiti, such as spray paint, can be easily and quickly removed from them. Although the above sheets have an abrasion resistant coating, the use of abrasive cleaners and/or sharp cleaning instruments that may damage or scratch the coating should be avoided.

The recommended cleaning procedure for the removal of graffiti etc. is as follows:

- 1. For removal of paints, marking pen inks, lipstick, etc., the use of Butyl Cellosolve or Isopropyl Alcohol is generally effective. The use of masking tape, adhesive tape or lint removal tools works well for lifting off old weathered paints.
- 2. To remove labels, stickers, etc., the use of VM&P Naphtha or Isopropyl Alcohol is generally effective. If the solvent will not penetrate sticker material, apply heat (hair dryer) to soften the adhesive and promote removal.
- 3. As a final step, wash with a warm soap solution, followed by a rinse with clean water.



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