

# Limited Product Warranty

## SCUDO® GP POLYCARBONATE SHEET

SCUDO® is a registered trademark of GALLINA USA, LLC

### Five-year limited warranty

The following terms and conditions constitute the sole warranty made by GALLINA USA, LLC (the "Company") regarding SCUDO GP Polycarbonate Sheet (the "Product") to the immediate purchaser of the Product from the Company or its authorized distributor (the "Buyer"). In all cases, the Company's sole liability and the Buyer's sole remedy shall consist of the Company replacing the defective Product or refunding the purchase price, at the Company's option as discussed herein. This warranty shall not apply to any Product improperly installed, maintained, or used in an inappropriate application. Failure of the Product due to incomplete or incorrect Buyer-supplied information shall not be warranted. Notwithstanding any other provision in this warranty or elsewhere to the contrary, the Company's liability, for any cause whatsoever, shall not exceed the purchase price of the Product in question. The Company shall not be liable for any special, incidental, indirect, or consequential damages of any kind, arising at any time or for any cause whatsoever. In no event shall this warranty cover the cost of removal, reinstallation, transportation and handling, or similar costs. All warranties begin on the date of sale to Buyer. The Buyer must notify the Company within 30 days of an alleged defect, or this warranty shall be void. This warranty shall not apply unless Buyer returns defective material for evaluation and testing and proof of purchase to the Company or the original dealer prior to the expiration of the warranty.

Subject to the conditions and definitions contained herein, if the Product breaks within five (5) years from the date of sale due to a manufacturing defect, then the Buyer, or the fabricator designated by the Buyer, will receive a free replacement sheet. If a replacement sheet cannot be provided within fourteen (14) days, the Company may opt to refund the original Product purchase price in lieu of providing replacement sheet Product.

### CONDITIONS

This warranty applies only when the Product has been designed, fabricated, installed, and cleaned in accordance with guidelines published by the Company (available at [www.plaskolite.com](http://www.plaskolite.com)).

Breakage: The Product is tougher than acrylic and resists impact, abuse, and vandalism. However, no material can be described as unbreakable, for it is impossible to account for all types of usage. The warranty applies if the Product breaks and a sample of the returned Product breaks in a brittle manner (breaks into separate pieces with sharp edges, without plastic deformation) when tested according to ASTM D 3763 modified by the Company.

THE WARRANTIES STATED IN THIS PUBLICATION ARE THE ONLY WARRANTIES MADE BY GALLINA USA, LLC WITH RESPECT TO THE PRODUCT AND ARE IN LIEU OF ALL WARRANTIES, WRITTEN OR ORAL, STATUTORY, EXPRESSED, OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Customer Name: \_\_\_\_\_ Date of Sale: \_\_\_\_\_

Distributor Name: \_\_\_\_\_ Distributor PO Number: \_\_\_\_\_

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.



# POLYCARBONATE SHEET

## Care and Maintenance

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

Policarb®

arcoPlus®

Tegolux®

TegoPlus®

Policomp®

Scudo®

### General Polycarbonate Cleaning Guidelines

- Never use abrasive or high alkaline cleaners on any GALLINA polycarbonate products
- Do not leave cleaners on GALLINA polycarbonate for extended periods of time. Rinse immediately with cold, clean water.
- Do not apply cleaners in direct sunlight.
- Never use sharp objects, 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 insure against adverse results.
- Avoid allowing the pressure washer spray tip to come too close to the panel. Pressure washers often have enough pressure at the spray tip 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 POLICARB with AF, as the effectiveness of the anti-condensate coating can potentially be diminished, depending on cleaning method or material used.

### General Cleaning Instructions for all Products Listed at Left

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

- Methyl alcohol
- Ethyl alcohol
- Butyl alcohol
- Isopropyl alcohol
- Heptane
- Hexane
- Petroleum ether (BP 65°)
- VM&P Naphtha

As is the case with all thermoplastic materials, certain chemicals can cause structural as well as surface damage and precautions need to be taken to avoid any aggressive cleaning agents. Should you desire to use a cleaning agent not on the approved list, please contact a GALLINA representative to inquire about chemical compatibility.

**Specific cleaning instructions for large roofing and wall applications** Gallina polycarbonate products used for large commercial roofing and wall applications can be cleaned in the same fashion as mentioned previously; sometimes, due to the sheets physical installation location, different cleaning apparatus need to be utilized. When polycarbonate products are installed in such applications, utilization of a pressure

# POLYCARBONATE FLAT SHEET

PALRAM Care and Maintenance *(continued)*

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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.

## Chemical Resistance of Polycarbonate Sheet at Room Temperature

Chemical	Concentration %*	Resistance	Chemical	Concentration %*	Resistance
Acetaldehyde		N	Butane		R
Acetic Acid	10	R	Butter		R
Acetic Acid	25 (concentrated)	LR (N)	Butyl Acetate		N
Acetone		N	Butyl Alcohol (Butanol)		R
Acetylene		R	Butylene Glycol		R
Acrylonitrile		N	Butyric Acid		N
Ajax Detergent		R	Calcium Chloride	Saturated	R
Allspice		N	Calcium Hypochlorite		R
Allyl Alcohol		LR	Calcium Nitrate		R
Alum (Aluminum Ammonium Sulfate)		R	Calcium Soap Fat		R
Aluminum Chloride	Saturated	R	Camphor Oil		N
Aluminum Oxalate		R	Carbolic Acid		N
Aluminum Sulfate	Saturated	R	Carbon Bisulfite		N
Ammonia (Gas)		N	Carbon Dioxide Gas (Moist)		R
Ammonia (Aqueous)		N	Carbon Disulfide		N
Ammonium Carbonate		LR	Carbon Monoxide		R
Ammonium Chloride		R	Carbon Tetrachloride		N
Ammonium Fluoride		N	Castor Oil		R
Ammonium Hydroxide		N	Catsup (Ketchup)		R
Ammonium Nitrate		R	Caustic Potash (Potassium Hydroxide)		N
Ammonium Sulfate	Saturated	R	Caustic Soda (Sodium Hydroxide)		N
Ammonium Sulfide		N	Chlorine Gas (Dry)		LR
Amyl Acetate		N	Chlorine Gas (Wet)		N
Amyl Alcohol		LR	Chlorobenzene		N
Aniline		N	Chloroform		N
Antimony Trichloride	Saturated	R	Chocolate		R
Aqua Regia (3 parts HCl:1 part HNO <sub>3</sub> )		LR	Chrome Alum	Saturated	R
Arsenic Acid	20	R	Chromic Acid	20	R
Automatic Switch Grease		R	Cinnamon		R
Automotive Waxes		LR	Citric Acid	10	R
Baby Lotion		R	Cloves		N
Bacon Fat		R	Coal Gas		R
Barium Chloride		R	Coca Cola		LR
Battery Acid		R	Cocoa		LR
Beer		R	Cod Liver Oil		R
Beet Syrup		R	Coffee		LR
Benzaldehyde		N	Cooking Oil		R
Benzene		N	Copper Sulfate	Saturated	R
Benzoic Acid		N	Cresol		N
Benzyl Alcohol		N	Cupric Chloride	Saturated	R
Betadine		R	Cuprous Chloride	Saturated	R
Bleach (Clorox)		R	Cyclohexane		R
Blood and Blood Plasma		R	Cyclohexanol		LR
Borax		R	Cyclohexanone		N
Boric Acid		R	DDT		R
Brake Fluid		N	Dekalin		R
Bromine		N	Detergent (most)		LR or R
Bromobenzene		N	Developing Solutions		N or LR

"Entries indicate the following: R - resistant, LR - limited resistance, N- not resistant"

\*concentration of aqueous solution except where noted

# Chemical Resistance of Polycarbonate Sheet at Room Temperature

Chemical	Concentration %*	Resistance	Chemical	Concentration %*	Resistance
Diamyl Phthalate		N	Kerosene		N
Diesel Fuel		R	Lactic Acid	20	R
Diethyl Ether (Ethyl Ether)		N	Lacquers and Thinners		N
Dimethyl Formaldehyde (DMF)		N	Laundry Detergents (Most)		LR or R
Dimethyl Sulfoxide (DMSO)		N	Ligroin (Hydrocarbon Mixture)		R
Dinonyl Phthalate (plasticizer)		LR	Lime Solution (2%) or paste		R
Doctyl Phthalate (plasticizer)		LR	Liquors or Liqueurs		R
Dioxane		N	Linseed Oil		R
Diphyl 5,3		LR	Loctite		N
Ethanol (Ethyl Alcohol) and Water	96	R	Lubricating Oils (Most)		LR or R
Ethanol (Ethyl Alcohol)	Pure	LR	Machine Oils (Most)		R
Ethyl Amine		N	Magnesium Chloride	Saturated	R
Ethyl Acetate		N	Magnesium Sulfate	Saturated	R
Ethyl Bromide		N	Manganese Sulfate	Saturated	R
Ethylene Chloride		N	Margarine		R
Ethylene Chlorohydrin		N	Mayonnaise		R
Ethylene Dichloride		N	Meat		R
Ethylene Glycol (Antifreeze)		LR	Mercuric Chloride	Saturated	R
Ferric Chloride	Saturated	R	Mercury		R
Ferrous Sulfate		R	Methane		R
Fish and Fish Oils		R	Methanol (Methyl Alcohol)	Pure	LR
Floor Polish		R	Methylamine		N
Formalin	10%	R	Methylcellusolve		N
Formic Acid	10% (30%)	R (LR)	Methylene Chloride		N
Freon TF		R	Methyl Ethyl Ketone (MEK)		N
Freon (all others)		N	Methylmethacrylate		N
Fruit Juices and Pulp		R	Milk		R
Gasoline		N	Mineral Oil		R
Gear Oil		R	Motor Oils (Most)		LR or R
Glazers Putty		R	Mustard		R
Glucose		R	Naphtha (Stanisol)		N
Glycerine		R	Nickel Sulfate		R
Glycerol		R	Nitric Acid	20	R
Glycols		R	Nitrobenzene		N
Glutaraldehyde	50%	R	Nitropropane		N
Grease, Automotive (Most)		R	Nitrous Oxide		N
Heptane		R	Nutmeg		N
Hexane		R	Oleic Acid		R
Hydrazine		N	Onions		R
Hydrochloric Acid	20 (Concentrated)	R (N)	Oxalic Acid	10	R
Hydrofluoric Acid	20	R	Oxygen		R
Hydrogen Peroxide	30	R	Ozone		N
Hydrogen Sulfide		R	Paprika		R
Iodine (aqueous solution)	5	R	Paraffin		R
Iodine		N	Pentane		R
Inks (Most)		R	Pepper		R
Isoamyl Alcohol		LR	Perchloric Acid	10 (concentrated)	R (LR)
Isopropyl Alcohol		R	Perchloroethylene		N

"Entries indicate the following: R - resistant, LR - limited resistance, N- not resistant"  
 \*concentration of aqueous solution except where noted

# Chemical Resistance of Polycarbonate Sheet at Room Temperature

Chemical	Concentration %*	Resistance	Chemical	Concentration %*	Resistance
Petroleum		LR	Sodium Sulfide		N
Petroleum Ether		LR	Sodium Thiosulfate		R
Petroleum Oil (Refined)		R	Spindle Oil		R
Phenol		N	Stannous Chloride		R
Phosphoric Acid	10	R	Starch		R
Phosphorous Oxychloride		R	Styrene		N
Phosphorous Pentoxide	25	LR	Sugar	Saturated	R
Phosphorous Trichloride		N	Sulfur Dioxide (Gas)		R
Polyethylene		R	Sulfuric Acid	<50 (50<70)	R (LR)
Polyethylene Glycol		R	Sulfurous Acid	10	N
Potassium Acetate		LR	Sulfuryl Chloride		N
Potassium Aluminum Alum (Sulfate)	Saturated	R	Tapping Oil		R
Potassium Bichromate		R	Tartaric Acid	30	R
Potassium Bromate		R	Tear Gas (Chloracetophenone)		LR
Potassium Bromide		R	Terpineol		N
Potassium Chloride	Saturated	R	Tetrahydrofuran		N
Potassium Cyanide		N	Tetralin		N
Potassium Dichromate	Saturated	R	Thiophene		N
Potassium Hydroxide		N	Thyme		R
Potassium Metabisulfite	4	R	Titanium Tetrachloride		R
Potassium Nitrate	Saturated	R	Tobacco		R
Potassium Perchlorate	10	R	Toluene		N
Potassium Permanganate	10	R	Transformer Oils		R
Potassium Persulfate	10	R	Transmission Fluid		R
Potassium Rhodanide	Saturated	R	Trichloroacetic Acid	20	LR
Potassium Sulfate	Saturated	R	Trichloroethylamine		N
Propane		R	Trichloroethylene		N
Propargyl Alcohol		R	Trichloroethylphosphate		LR
Propionic Acid	20	R	Tricresylphosphite		N
Propionic Acid	Concentrated	N	Trisodium Phosphate		R
Propyl Alcohol (1-Propanol)		R	Turpentine		LR
Pyridine		N	Urea		R
Salad Oil		R	Vacuum Pump Oil		R
Salt		R	Vanilla		R
Silicofluoric Acid	30	R	Vanillin		R
Silicone Grease		R	Varnish		N
Silicone Oil		R	Vaseline		R
Silver Nitrate		R	Vegetable Juices		R
Soap (Ivory)		R	Vegetable Oils		R
Sodium Bicarbonate	Saturated	R	Vinegar		R
Sodium Bisulfate	Saturated	R	Water (Deminerlized or Sea)		R
Sodium Bisulfite	Saturated	R	White Spirit		N
Sodium Carbonate	Saturated	R	Wine, Whiskey, Vodka, Rum, Cognac		R
Sodium Chlorate		R	Witch Hazel		R
Sodium Chloride	Saturated	R	Worcester Sauce		R
Sodium Chromate		R	Xylene		N
Sodium Hydroxide		N	Zinc Chloride		R
Sodium Hypochlorite	5% Chlorine	R	Zinc Oxide		R
Sodium Nitrate		N	Zinc Stearate		R
Sodium Sulfate	Saturated	R	Zinc Sulfate		R

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\*concentration of aqueous solution except where noted

The chemical resistance information in this table is based on our research and experience and may be considered solely as a basis for recommendation, but not as a guarantee, unless specifically furnished as such by SPS International.