

## Field Fabrication

- Glazing may be field cut to length or width using a jig saw or a circular saw with a fine tooth blade
- Always blow out dust particles from the inner cells of the panel after field cutting
- Cover cut ends of panels with a venting tape to keep the interior of the panel cells clean
- Glazing may be field bent according to the following guidelines:

Panel Thickness	Minimum Cold Bending Radius
Pentaglas® 12 mm	8'
Pentaglas® 16 mm	8'
Quadwall® 10 mm over 8 mm	8'

## Cleaning Instructions

### Washing

**Do not spray water into flutes of the panels** - The ideal way to remove dirt, debris, and saw chips before washing is with compressed air or air blowers. Cleaning from time to time is essential. After blowing out debris, wipe down the outside of the panel with a soft rag or sponge and a mild dish soap and water solution. Then, simply rinse with clear water and dry water droplets with a soft cloth or chamois. **DO NOT** use scrub brushes as these will scratch the panels.

**Always test the selected cleaning agent and method on a small unobtrusive area to verify that the panel surface is not damaged before cleaning the entire glazing system.**

### Suggested Detergents

Suggested detergents include: JOY by Proctor & Gamble, WINDEX by Drackett Products, and PALMOLIVE LIQUID by Colgate Palmolive. These detergents are all compatible with the Pentaglas® glazing panels when the manufacturer's recommendations and instructions are followed.

## Storage Instructions

- Always store materials in a cool, shaded, well-ventilated, and dry area that is safe from falling debris.
- Materials may be stored, for short periods, at temperatures up to, and not exceeding, 100 degrees F.
- Panels should be stored on a straight, smooth, level surface. A full panel-length layer of plywood is recommended under the first sheet of glazing.
- Although Pentaglas® glazing panels have a protective film on them, care in handling should be taken to protect the panels from denting or scratching. This film will become difficult, or impossible, to remove if panels are left in direct sunlight or excessive heat.
- The panels must be stacked in a way that each panel is supported by the one under it along its full length and width, and not higher than 6'6" per stack. Panels are to be stacked in the aforementioned manner to avoid denting, folding, or permanent deforming. Due to the nature of the extrusion process in the manufacturing of this product, minor imperfections or denting are acceptable and will not affect performance or warranty issues.

### Removal of Foreign Substances

To remove stubborn stains such as grease, adhesives, fresh paint splashes, silicones, inks, etc., the use of VM&P Naphtha, Isopropyl Alcohol, Kerosene, or Petroleum Spirits will generally soften the stain for removal. It is very important to only work a small area (2' x 2') at any one time. After removal of stains, a final wash and rinse should be made following the suggested washing instructions. The use of duct tape often works well for removal of old paint.

### Suggested Graffiti Removers

#2 BUTOXY ETHANOL Stock # JTD 649-7  
from VWR Scientific

VWR Scientific  
P.O. Box 66929 O'Hare-AMF  
Chicago, IL 60666  
Tel: 1-800-932-5000  
FAX: 630-879-6718

POLYCARB CLEANER  
from AGP Systems

AGP Systems  
P.O. Box 388  
Windham, NY 12496  
Tel: 1-518-734-5880  
FAX: 518-734-5794

### Important - DO NOTs...

- Never use unapproved cleaners such as highly abrasive polishes, muriatic acid, methyl ethyl ketone, alkaline, acetone, gasoline, benzine, etc. They may damage glazing panels.
- Avoid cleaning glazing panels in the hot sun or at elevated temperatures, as this may dry the water droplets rapidly, creating hard water deposit stains
- Avoid the use of cleaning tools on glazing panels, such as brushes, squeegees, razor blades, or scrapers

### Installation - Important Notes

- Installs must be performed by certified installers - contact Kingspan Light + Air | CPI Daylighting to schedule training
- Allow for expansion and contraction of 1/4" for each 10' of panel
- Remove the protective film from glazing immediately upon installation to avoid melting the film to the panel
- Install the panel with the UV protection facing the sun. An arrow on the side of the glazing should point outward
- Use only recommended fasteners, screws, etc., level, straight, etc. to allow movement. Install roof fasteners per the design spec
- Panel end must be fixed into the proper framing
- Don't create excessive stresses, deformation, twisting, etc. on your installation
- Handle all materials with care

### Painted Aluminum

#### Recommended Standard Cleaning Procedures

1. Painted surfaces should be cleaned as soon as possible after installation to remove construction soils and accumulated environmental soils. Ideally, a forceful water rinse from the top down should be employed before applying any cleaner. Some type of surface agitation helps. A low volume of water at moderate pressure is better than a high volume at low pressure. Rubbing the surface with soft brushes, sponges, or cloth during the rinsing also helps.
2. If a simple water rinse with brushing, sponging, or rubbing with a cloth is not sufficient to remove the soil, a mild detergent or soap will be necessary. Washing in this scenario should be done by brushing or sponging with uniform pressure, first horizontally then vertically. Following the wash, the surfaces must be thoroughly rinsed with clean water. If the cleaner has been permitted to dry, it may be necessary to sponge the surfaces while rinsing. Rinsed surfaces may be permitted to air dry or may be wiped dry with a chamois, squeegee, or lint-free cloth.
3. Cleaner run-down should be minimized and those areas subject to run-down should be rinsed immediately, and as long as necessary, to lessen the probability of streaking.
4. Cleaning chemicals must not be allowed to collect on surfaces, to "puddle" on horizontal surfaces, or to collect in joints and crevices. These surfaces, joints, and crevices should be thoroughly flushed with water and dried.
5. Mild detergents and soaps safe for bare hands should be safe for coated aluminum. Stronger detergents should be carefully spot-tested. Some of the latter would necessitate using rubber gloves and long-handled brushes. Some mild cleaning solutions are available for automatic building washing machines.
6. Mild solvents may be used to remove grease, sealant, or caulking compounds. Care should be taken to assure that no surface marring takes place in this manner since it could give an undesirable appearance at certain viewing angles. Cleaners of this type are usually applied and removed with a clean cloth. Remaining residue should be washed with mild soap and rinsed with water. Use solvent cleaners sparingly.
7. Dried concrete spillage on painted surfaces may be quite stubborn to remove. Special cleaners and/or vigorous rubbing with non-abrasive brushes or plastic scrapers may be necessary. Diluted solutions of Muriatic Acid (under 10%) may be effective in removing dried concrete stains and effective proprietary cleaners for concrete and mortar staining are available; however, a test area should be tried first and proper handling precautions must be exercised for safety reasons.

#### Important Notes

- Always test a small area first
- Stronger solvents, or those containing cleaners, may soften paints. To prevent damage to the finish, the coating manufacturer should be consulted and these types of solvents or emulsion cleaners should first be spot-tested
- Since solvents may extract materials from sealants, which could stain the painted surface or could prove harmful to sealants, their possible effects must be considered
- Always rinse the surface after removing heavy surface soil
- Mixing cleaners may not only be ineffective, but also very dangerous. For example, mixing chlorine-containing materials such as bleaches with other cleaning compounds containing ammonia can produce a poisonous gas
- Excessive abrasive rubbing should not be used since it could damage the finish

*Information based on  
Architectural Aluminum Manufacturers  
Association published literature,  
Care of Painted Aluminum*

### Anodized Aluminum

#### Recommended Standard Cleaning Procedures

1. Cleaning procedures for aluminum should be initiated as soon as practical after completion of installation to remove construction soils and accumulated environmental soils and discolorations.
2. Cleaning work should start at the top of the structure and proceed to the lowest level in a continuous drop. Using a forceful water spray, an area the width of the stage or scaffolding should be rinsed as cleaning proceeds from the top down.
3. For light soils, the simplest procedure is to flush the surface with water using moderate pressure. If soil is still present after air drying the surface, scrubbing with a brush or sponge and concurrent spraying with water should be tried. If soils still adhere, then a mild detergent cleaner should be used with brushing or sponging. Washing should be done with uniform pressure, first horizontally then vertically. Following the wash, the surfaces must be thoroughly rinsed by spraying with clean water.
4. If it's necessary to remove oil, wax, polish, or similar materials, MEK or an equivalent solution is recommended for clean up. Extreme care must be exercised when solvents of this type are used since they may damage organic sealants, gaskets, and finishes. These solvents should never be used on anodic finishes protected by clear organic coatings unless the organic coating has deteriorated and should be removed.
5. Removing heavy surface soils may require the use of an abrasive cleaning pad. In this procedure, the pad is thoroughly soaked with clean water or a mild detergent cleaner and the metal surface is hand scrubbed with uniform pressure. Scrubbing action should be in the direction of the metal grain. Scrubbing with a nylon cleaning pad impregnated with a surface protectant material is also recommended for removing stubborn soils and stains. After scrubbing, the surface should be rinsed thoroughly with clean water to remove all residue.
6. In some circumstances it may be desirable to wipe the surface with a solvent. The surface is then permitted to air dry or is wiped dry with a chamois, squeegee, or lint-free cloth.

#### Important Notes

- Aggressive alkaline or acid cleaners must never be used
- Cleaning hot, sun-heated surfaces should be avoided since possible chemical reactions will be highly accelerated and cleaning non-uniformity could occur
- Strong organic solvents, while not affecting anodized aluminum, may extract stain producing chemicals from sealants and may affect the function of the sealants. Strong cleaners should not be used on window glass and other components where it's possible for the cleaner to come in contact with the aluminum
- Excessive abrasive rubbing should not be used since it could damage the finish

*Information based on Architectural Aluminum Manufacturers Association published literature, Care of Painted Aluminum*