

SKYLIGHT CLEANING AND MAINTENANCE MANUAL

American Brewery
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I. CLEANING THE SKYLIGHT

A qualified and insured window-cleaning contractor should be consulted concerning cleaning methods, skylight access and safety while working on or around the skylight.

Super Sky does not recommend that anyone walk on the skylight glass after it has been installed. Anyone working on or near a skylight must wear OSHA approved fall protection gear.

The area below the skylight should not be occupied while personnel are working on or around the skylight.

Shortly after the completion of construction work in the skylight area, the skylight should be cleaned. This will help prevent staining or other permanent damage to the skylight caused by construction debris or chemicals. Thereafter, at regular intervals as determined by the owner, the skylight glass and aluminum should be cleaned per the instructions noted below.

A. Cleaning Glass

It is recommended that the skylight glass be cleaned with as mild a cleaner as will remove the surface dirt from the glass. This usually means using one of the following:

- Commercial Glass Cleaner
- Solution of mild soap and water
- Solution of IPA and water (50/50 mix)

- 1) Apply commercial glass cleaner or other solution to the glass either by spraying or using a clean, grit free cloth sponge saturated with cleaning solution. Complete coverage of the area to be cleaned is necessary. For ease in cleaning, an area of no more than 10-15 square feet is recommended.
- 2) Wipe the cleaning solution on the glass surface in a circular motion, applying light to moderate pressure. Approximately 3-5 passes in the affected area may be required to remove the residue. Fewer or more passes may be required depending on the adhesion and severity of the residue.
- 3) Rinse the glass surface immediately with generous amounts of clean water, removing the cleaning solution from the glass surface.
- 4) Using a squeegee or clean, lint free cloth, remove water from the glass surface.
- 5) If residue is still present, repeat steps 1, 2, 3 and 4.

IMPORTANT NOTES

- 1) Do not clean glass when it is exposed to direct sunlight.
- 2) Glass should be cleaned by starting at the top and systematically working down to the glass installed on the lower levels. This technique reduces the possibility of residue and cleaning solution rundown on the glass previously cleaned.

Should the above procedures not provide the necessary cleaning, there are other cleaning agents/procedures available. Please contact Super Sky or the glass manufacturer for additional cleaning options.

B. Cleaning Reflective Glass

Special care must be taken when cleaning glass with an exposed reflective coating. This applies to the glass with the coating on the exterior (#1) surface or in some cases the interior surface (#2 surface with

monolithic glass, or #4 surface with monolithic laminated or 1" insulated). Please see the glass specification in paragraph V to determine if the reflective coating is exposed.

The reflective coating is a thin metallic coating, which is more susceptible to damage during cleaning. Fingerprints, grease smears, dirt, and sealant residue are more noticeable on reflective glass therefore more frequent cleaning may be required.

The routine cleaning procedure for reflective glass is the same as indicated above. Extra care must be taken so that no metal parts of the cleaning equipment touch the glass, or that no abrasive particles are trapped between the glass and cleaning materials. Since razor blades, putty knives, and metal parts may scratch the coating, extreme care must be taken.

C. Cleaning Aluminum Finishes

Construction soils, including concrete or mortar, etc. should be removed as soon as possible. Try to restrict cleaning to days with mild weather and cleaning should be done on the shaded side of the building, or ideally on a mild, cloudy day.

Removal of Light Surface Soil

Removal of light surface soil can be accomplished in several ways. Some testing is recommended to determine the degree of cleaning necessary to accomplish the task. Ideally, an initial step of forceful water rinse from the top down is recommended prior to any cleaner application. Significant benefit is gained with some type of surface agitation. Low water volume with some pressure is preferred to high volume with little pressure. Physical rubbing of the surface with soft, wet brushes, sponges or cloths is also helpful.

The simplest procedure would be to apply the water rinse with moderate pressure to dislodge the soil. If this does not dislodge the soil, then concurrent water spray with brushing or sponging should be tested. If soil is still adhering after drying, then a mild detergent will be required.

When a mild detergent is necessary, it should be used with brushing or sponging. The washing should be done with uniform pressure, cleaning first with a horizontal motion, then a vertical motion. Apply cleaners only to an area that can be conveniently cleaned without changing position. The surface must then be thoroughly rinsed with clean water. It may be necessary to sponge the surface while rinsing, particularly if cleaner has been allowed to dry on the surface. The rinsed surface should then be allowed to air dry, or wiped with a squeegee, chamois, or lint free cloth.

Rundown of cleaner to the lower portions of the skylight should be minimized, and these areas should be rinsed as soon and as much as necessary to lessen streaking. Do not allow cleaning chemicals to collect on surfaces or to "pond" on horizontal surfaces. These should be flushed with water and allowed to dry.

Mild detergents determined to be safe for bare hands should be safe for coated aluminum. Stronger detergents such as dishwater detergents should be spot tested prior to use. Do not use abrasive cleaners. The skylight surface should be thoroughly rinsed and dried after use of these types of cleaners.

Cleaning Medium to Heavy Soil

Some types of mild solvent cleaners such as mineral spirits may be used to remove grease, sealant, or caulking compounds. Stronger solvents or solvent containing cleaners may have a deleterious or softening effect on painted finishes. Prior to these types of solvent or emulsion cleanser, they should be thoroughly spot tested. The affect of these types of cleaners on glass and sealants should also be considered and tested. As always, after the application of any cleaner, thoroughly rinse with clean water and dry the surface after cleaning.

Do not use excessive, abrasive rubbing when cleaning as this may alter surface textures or impart a "shine" to the surface.

II. SEALANT INSPECTION GUIDELINES

Inspections should be done on a regular basis to substantiate that damage or deterioration has not occurred that would affect the integrity of the sealant. The inspections should be conducted by building maintenance personnel.

Inspections should include very thorough checks of the silicone weather seal joints and/or structural joints. Check for vandalism or damage, and either cut or remove silicone where directly accessible. Check for loss of cohesion or adhesion of the silicone as evidence of inadequate strength. This can be tested by applying light pressure to the joint with the slightly rounded end of a dowel rod or the eraser end of a pencil. Evidence of loss of adhesion is indicated if silicone separates from the glass.

Report any damage or cohesion/adhesion loss to the owner. Any damaged silicone areas where the integrity of the installation is affected must be temporarily repaired within 24 hours to guard against water leakage and damage to the building interiors. Contact Super Sky immediately for permanent repair.

As with any other glass installation, these maintenance inspections are necessary, and we wish to point out that this aspect of the project must not be overlooked. We suggest that the building engineer inspect projects at least according to the following schedule. More frequent inspections may be required per the discretion and judgment of the responsible building engineer.

We suggest a minimum inspection schedule as follows:

Initial Inspection: Three months after silicone is applied.

First Year after Initial Inspection: Inspect every six months.

Every Year Thereafter: Inspect every twelve months.

III. SEALANT REPAIRS

The skylight warranty is dependent upon the tendering of any repair or replacement to Super Sky. Any repair or replacement work performed on this skylight system by forces other than our own will void the skylight warranty in its entirety.

Should sealant repairs be required during or after the life of the skylight warranty, we recommend Dow Corning 795 Silicone sealant, color to match existing sealant as shown on the as-built shop drawings.

Dow Corning 795 can be applied to sound, clean, dry and contamination-free glass surfaces. It is available in cartridge form and can be applied at outside temperatures as low as minus 20 degrees Fahrenheit, providing this surface is clean and frost-free. This material should not be applied to any surfaces where surface temperature exceeds 200°F. IPA should be used to clean the glass or metal prior to application. Joints should be tooled within ten (10) minutes of application, and excess sealant should be removed at once.

Remedial caulking guidelines can also be obtained from the sealant manufacturer.

CAUTION: *The use of any acid curing silicone sealants (e.g. Dow 999 or General Electric 1200) is not recommended and may cause failure.*

IV. REPORTING GLASS BREAKAGE

Glass breakage is not covered under the terms of this warranty, unless it can be shown the breakage was caused by defective design, materials, or installation. Unexplained breakage is not covered under this warranty. Breakage should however be reported to Super Sky so that a quotation can be made and a replacement lite ordered. To maintain the warranty on the skylight, Super Sky must replace all broken lites.

Work performed by others on the skylight is obviously not covered under Super Sky's warranty and may in fact void the skylight warranty in part or entirely.

V. GLAZING MATERIAL

The glazing material on this skylight is made up as specified.

VI. GENERAL RECOMMENDATIONS

1. For repairs after the life of the warranty, a contractor experienced in skylight inspection and repair should be consulted for repair methods, skylight access and safety while working on or around the skylight.
2. No personnel should be working on or touching the skylight during a lightning storm.
3. Refer to Manufacturer's Limited Warranty - Extruded Aluminum Skylight for the scope of glass replacement.
4. Any person, or persons or business that proceeds with any cleaning, inspection or repair of the skylight must be sufficiently trained, qualified, experienced, and insured to do so, and must assume all liability for any damage or injury, regardless of any errors or omissions that may occur in this cleaning and maintenance manual. This manual is intended only to assist those who are properly trained and qualified in skylight cleaning and maintenance and is not intended to be comprehensive regarding safety precautions or used by those without adequate experience. The responsibility for worker safety when accessing the skylight is by the contractor working on the skylight, not Super Sky. Super Sky does not train or certify other subcontractors in skylight repair and maintenance.