

## Product Care Before & After Installation

Polycarbonate Dome:



Brett Martin Daylight Systems manufacture polycarbonate in solid, profiled and structured sheet, and incorporate into many rooflight products. This advice should be followed for dome rooflight products.

## Polycarbonate & Chemicals

Polycarbonate has high resistance to many chemicals, but is prone to stress cracking. A number of factors, such as contact with particular chemicals, or stresses in the material, or particularly a combination of the two, can have a potentially devastating effect on the material properties, and lead to premature product failure.

The most critical effect is stress cracking or crazing, which may vary in size from being visible to the naked eye to being observable only under a microscope; it can result in significant reduction in mechanical properties. Small stress cracks which will always emanate from the area of greatest stress, typically around fixings, can lead to total sheet failure.

## Polycarbonate Installation Guidance

It is essential that our installation instructions are followed in full and the recommended materials should always be used. The rooflights should not be brought into contact with any other material e.g. adhesives, sealants, paints, solvents including the support structure, without prior approval.

Care must also be taken to ensure that polycarbonate rooflights are not subject to undue stress once fixed. The rooflights will compress sealant when correctly fixed, but correct location of sealant and tightening of fixings is important: over tightened fixings, incorrectly positioned sealants or fasteners, or anything which causes a permanent deflection of the rooflight sheet can generate stresses which can lead to premature failure of the material, particularly in the presence of chemicals.

Care is also required to ensure a good seal is achieved at all fixings and laps, and that no water is trapped in these areas. Polycarbonate has good resistance to water at ambient temperatures but this reduces at temperatures over 60°C, so pockets of trapped water (which may reach elevated temperatures) must be avoided.

## Before Installation

### Packaging

To prevent damage prior to and during installation, polycarbonate rooflights are delivered boxed or palletised with a protective sheet on the outer dome. The protective sheet should be removed after installation, and when the work of any following trades is complete. Protective sheet should not be allowed to remain on the installed sheet surface for longer than 4 weeks.

### Storage

Storage should be indoors as far as possible. Where domes are stored outdoors they must be protected from the sun, wind and water. Cover securely with an opaque waterproof cover and ensure adequate ventilation to prevent heat build up. Take care to prevent damage or scratching of the rooflight.

### Heat Applied Systems

Though resistant to heat degradation in normal roof conditions, direct application of heat from hot air gun or torch should be avoided as the high temperatures involved may burn or distort the PVC-U frameworks and discolour glazing.

When installed on a roof with a heat applied system always ensure that there is no direct application of a flame or heat to the polycarbonate.

**Note:** Ensure dome is installed following the appropriate installation technical bulletin.

## After Installation

### Maintenance

The general condition of polycarbonate rooflights, and the security of fixings and sealants should be checked periodically as part of the overall maintenance program for the structure into which they are incorporated. If a rooflight is found to be damaged it must be replaced in accordance with the original specification.

A regular cleaning programme will enhance the appearance and help retain the functional properties of the rooflight. The frequency of cleaning will depend on many factors, including:

- Geographical location of the building
- Environment surrounding building. i.e. marine, industrial, alkaline or surrounding trees or other plants etc.
- Levels of atmospheric pollution
- Prevailing winds
- Protection of the building by other buildings
- Possibility of airborne debris causing erosive wear. i.e. sand, salt, grit etc.

**Note:** Cleaning should occur at least **every 12-18 months** or more frequently depending on local environment.

### Cleaning Method

Polycarbonate should be treated with care:

- Use generous amounts of lukewarm water to rinse sheet and soften dried dirt.
- Make up a solution of lukewarm water and mild detergent or a mild soap, and use this to wash sheets; a soft sponge or cloth should be used to gently remove dirt and grime.
- Rinse with clean lukewarm water and repeat washing if necessary.
- After final rinse dry off with a soft cloth.

Polycarbonate rooflights are particularly vulnerable to scratching.

- **DO NOT** scrub with brushes, abrasive materials or sharp instruments as these will mark the surface.
- **NEVER** use solvents, alkaline cleaners, thinners or abrasive cleaners.
- **NEVER** steam clean, use low pressure if pressure washing.
- **NEVER** use: White spirit, Petroleum ether (BP65), Methyl alcohol (methanol), Acetone, Petrol, Benzene.

Incorrect cleaning which in any way damages the glazing automatically renders void all warranties. **Check suitability of any cleaner with our Technical Department before use.**

Cleaners which can be used include: **Isopropanol (e.g. computer screen wipes), Ethyl alcohol (ethanol), White kerosene (paraffin) and WD40**

### Actuators

Warranties on actuators are limited to 12 months from date of supply, however, if correctly commissioned, normal use should provide many years of service.

Where fitted, actuators should be checked at least once per 12 months, or otherwise in line with normal building maintenance regime. Checks should include the following:

- Check operation (up / stop / down); report any issues to Brett Martin Daylight Systems for detailed technical guidance as required.
- Check all fixings are seated correctly - retighten any loose fixings.
- Clean using a clean, lint free damp (**not wet**) cloth to remove built up dust and other detritus which may otherwise over time prevent proper function of the actuator.
- Apply a few drops only of freeing / lubricating oil (WD40 or similar) to the mechanism to aid operation and prevent binding.

In any event, if further assistance is required, please contact Brett Martin Daylight Systems for further detailed technical advice or guidance.