

Window Protection

All types of external protection must be fitted within the framework of the main light and tracery panels to preserve the overall appearance of the window. They should never be fitted across the whole exterior of a window (see illustrations overleaf).

All fixings should be non-ferrous and be caulked with lead. They should never be pointed round with mastic or mortar. Percussive drills should never be used to create the holes for fixings. Fixings should be made into joints between masonry units or, at worst, so that one unit adjacent to a joint is affected.

Wire guards

Unprotected iron wire or wire mesh guards should not be used as even galvanized mesh when cut to shape will corrode at the cut ends. Wire mesh grilles should be made by skilled wire-workers to accurate templates provided by glaziers and galvanised after fabrication. They should be fixed by glaziers. A thicker wire frame around each guard is also important.

Copper and iron wires should not be used as the corrosion and rust will eventually stain and disfigure the masonry fabric below the window and such stains can be extremely difficult and time consuming to remove.

Stainless steel

Stainless steel guards with stainless steel fittings are the best and probably the most cost-effective method of protecting windows. Guards should be powder-coated, because this increases the durability of the installation, and the overall black matt finish helps diminish the impact of the guard across the window.

Polycarbonate sheeting

Polycarbonates sheeting must be at least 6mm in thickness for adequate strength.

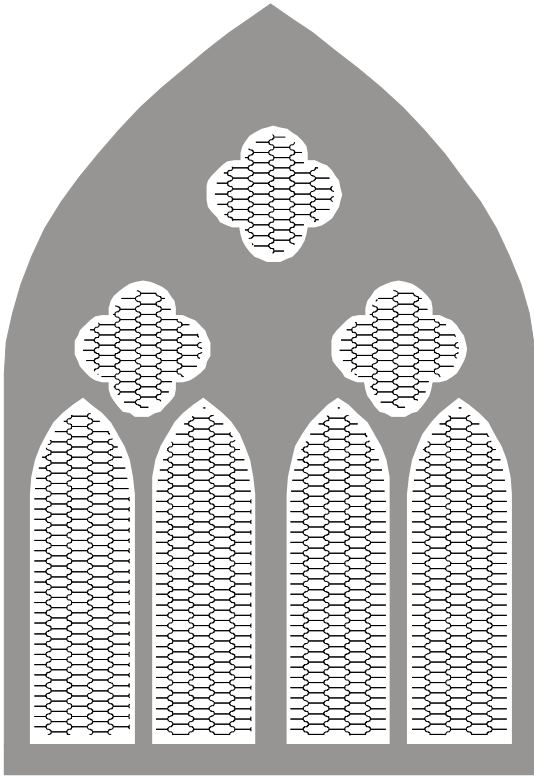
If properly fixed or set within a fixing frame the sheeting can be removed for easy access to the glass or repairs to the stone.

Polycarbonate sheeting can be subdivided horizontally with lead comes corresponding to saddle bars to give an appropriate external pattern and reduce distorted reflections.

Issues with polycarbonate sheeting

- Polycarbonate sheets need to be removed at regular intervals so that the glass can be washed, insect activity cleaned off (especially spider's webs) and the surrounding and window can be properly maintained.
- Plastic sheeting can be highly flammable. As fire is such an effective destroyer of glass, plastics should never be used to protect ancient glass or glass of high quality where the exterior is accessible to vandals.
- There needs to be a ventilation and expansion gap of about 1 cm around each polycarbonate panel.
- There must be a ventilation gap top and bottom to allow for the free passage of air. Any build up of condensation can damage the glass and lead, as well as providing a microclimate suitable for algae and lichens to form. However, the gap should not permit birds to perch on the panels.
- Polycarbonate sheets should be fixed on brackets of unpolished stainless steel with fittings of stainless steel and nylon.
- Polycarbonate sheet will protect windows from most external attacks. But sheeting can be scratched and burnt, and may cloud over time. Although polycarbonate is often a cheaper short-term method of protecting windows than using wire guards, in the long term stainless steel guards are probably more cost-effective and less prone to problems.

Permitted:



Not permitted:

