

8 ► HANDLING AND PROCESSING INFORMATION

This section provides details on handling and processing Pyroguard fire resistant safety glass products to maintain product quality and validates the warranty.

8.1 STORAGE, HANDLING AND CUTTING PYROSTEM TO ENSURE QUALITY

Pyroguard stock sheets should always be stored in their original end-cap case or, when unpacked, on suitable racking as used throughout the glass industry. Particular attention should be given to the bottom/resting edge to ensure it is not in contact with an uneven or hard surface.



All glass products should be stored indoors in dry conditions out of direct sunlight.

For manual handling appropriate PPE should be worn, as is standard practice in the glass industry. Care should be taken with the heavier weight of larger and thicker sheets.

Other handling documentation can be found via the GGF website in their publications Code of Practice Glass Handling, Storage and Transport.

6mm Pyrostem can be cut on a laminated glass cutting table or by scoring the glass by hand on each side and then snapping through.

8.2 STORAGE, HANDLING AND CUTTING OF PYROGUARD EW TO ENSURE QUALITY

Loading and Distribution of Stock Packs

Once the pack is ready for distribution then, prior to loading, the label should be completed with the correct customer details. This label also contains the CE mark and should be kept with the pack until all the glass has been used. The information contained within the CE marking label must be passed on through the individual cut sizes to the point of installation.

Unloading HIAB

- Glass will be unloaded by HIAB driver
- Ensure rack is at an angle of 7° (minimum)
- Secure with banding or suitable device if transporting
- Before lifting, ensure no-one is stood within 4 meters of the load

Unloading normal

- Before removing banding, ensure pack is secured by crane and all other packs are still banded to A-frame
- Glass should be carried at a low level
- Do not leave pack free standing
- Store at an angle of 7° before removing end-cap
- Before lifting, ensure no-one is stood within 4 meters of the load

Storage and Handling

Pyroguard glass products should always be stored in their original end-cap case or when unpacked on suitable racking as used throughout the glass industry. Particular attention should be given to the bottom/resting edge to ensure it is not in contact with an uneven or hard surface.

All glass products should be stored in dry indoor conditions out of direct sunlight.

Care should be taken when handling the glass remembering that, until glazed, the individual thin glass layers may be damaged by small edge impacts.

For manual handling protective clothing should be used, as normal in the glass industry, and care should be taken with the heavier weight of larger and thicker sheets.

Cutting

Due to the manufacturing process there will be a 10mm wide area around the perimeter of stock sheet sizes of Pyroguard EW and FD which contains a tape and no resin.

A cut size pane of Pyroguard EW and FD must not include this 10mm perimeter as it contains no resin and is not fire resistant.



Pyrostem, 7mm Pyroguard EW and FD60 can be cut on a laminated glass cutting table or by scoring the glass by hand on each side and then snapping through. In some climatic conditions the resin layer may need the application of additional heat to separate to cut.

11mm Pyroguard EW needs to be cut with a diamond-tipped saw blade, normally on a specialist-built vertical saw. **For best results the label should be against the saw with the glass fully supported.**

All glass products, especially those which have been saw-cut, should be washed and dried as soon as possible after cutting to remove any chance of surface damage.

No edge taping is generally required for the finished size glass of Pyroguard EW, and FD providing the glazed edges will always remain dry (such as in interior glazing or in a drained or fully bedded external application).

If there is any chance that the glass edge may be in contact with moisture or in high humidity, such as swimming baths or tropical countries, a metal foil edge tape should be applied to all edges before glazing.

Pyroguard EW30 Maxi Impact, EW30 Maxi Satin Impact, EW60 Impact and EW60 Satin Impact require the edges of the cut glass to be polished. This is an essential processing step that must be carried out.

Traceability

Pyroguard strongly recommends that for traceability, records are kept which includes the unique sheet number provided by Pyroguard UK Ltd. together with the size and destination of all cut size pieces. (See Appendix A4).

Retained off cuts must be marked with the unique sheet number. Off cuts of EW30 and FD60 should be segregated. Additionally off cuts of EW30 MAXI and EW60 should be segregated.

8.3 STORAGE, HANDLING AND CUTTING OF PYROGUARD EI TO ENSURE QUALITY

Storage and Handling

Laminated glass should always be stored in their original end-cap case or when unpacked on suitable racking as used throughout the glass industry. Particular attention should be given to the bottom/resting edge to ensure it is not in contact with an uneven or hard surface.

All glass products should be stored in dry indoor conditions out of direct sunlight.

Care should be taken when handling the glass remembering that, until glazed, the individual thin glass layers may be damaged by small edge impacts.

For manual handling appropriate PPE should be worn, as normal in the glass industry, and care should be taken with the heavier weight of larger and thicker sheets.

Cutting using a vertical saw

Once the glass sheet has been placed on the cutting table, it should not be moved as there will be a risk of scratches on the glass.

Once the cutting has started, it must be completed without major interruptions, as the cutting fluid (water) will dissolve components of the intermediate layer and will produce stains on the surface of the glass.

It is good practice to clamp the glass at the top of the cut once the blade is half way through the vertical cut. This will prevent vibration along the cut edge and prevent venting into the body of the glass. The clamp should only be applied at 'finger-tight' pressure.

The saw blade must be cooled by cutting fluid (water) during the sawing process. During this operation, the temperature of the water shall not show a difference exceeding about 8-10°C with the ambient temperature. If the temperature is lower, there is a risk that cracks may appear in the glass during in the cutting.

Pyroguard advise that the type of saw blades to be used are:

- Diamond discs WI-400-10-3, 6-7
- Diamond discs WI-350-10-3, 2-7

Once the glass has been cut, it is important to dry the edges and clean away any residue marks on the glass. The residue marks can be removed by using a general glass cleaning fluid and a fine grade steel wool ('type 000').

Cutting using a water-jet cutter

Before cutting, the glass should be checked for any bowing. If the glass is bowed it should be stored horizontally for approximately 8 hours. The supporting table must be flat.

Polystyrene sheets should be placed on the water cutting bed to support the glass and prevent any scratches to the surface.

The water-jet cutter should be run at a pressure of 3100 bar at a feed of between 0.9 – 0.6 m/min depending on the glass thickness (i.e. 15mm @ 0.9m/min, 27mm @ 0.6m/min).

When cutting is complete, all surfaces of the glass should be cleaned and dried. After this initial clean, the glass should be washed in a washing machine and then thoroughly dried.

Recommendations when taping the edges:

Only Pyroguard recommended aluminium tape should be used to tape the edges of the cut sized glass.

All edges must be thoroughly dried before any taping takes place.

The aluminium tape should be applied evenly along each edge of the glass. The corners of the tape should be 'nibbed' with a blade to allow a neat fold at the corners. If the glass is to be used for an IGU, cut the aluminium tape back on one side up to approximately 3mm. Fold and apply the aluminium tape carefully onto the glass.

Note: CNC milling type machines are not recommended for cutting Pyroguard products.

8.4 STORAGE AND HANDLING PYROGUARD T (TOUGHENED) TO ENSURE QUALITY

Pyroguard T glass products should always be stored in their case or when unpacked on suitable racking as used throughout the glass industry. Particular attention should be given to the bottom/resting edge to ensure it is not in contact with an uneven or hard surface.

All glass should be stored in dry indoor conditions out of direct sunlight. Glass should be stored between -10 and +45°C. Care should be taken when handling the glass remembering that, until glazed, the individual glass layers may be damaged by small edge impacts.

For manual handling PPE should be worn, as normal in the glass industry, and care should be taken with the heavier weight of larger and thicker sheets.

