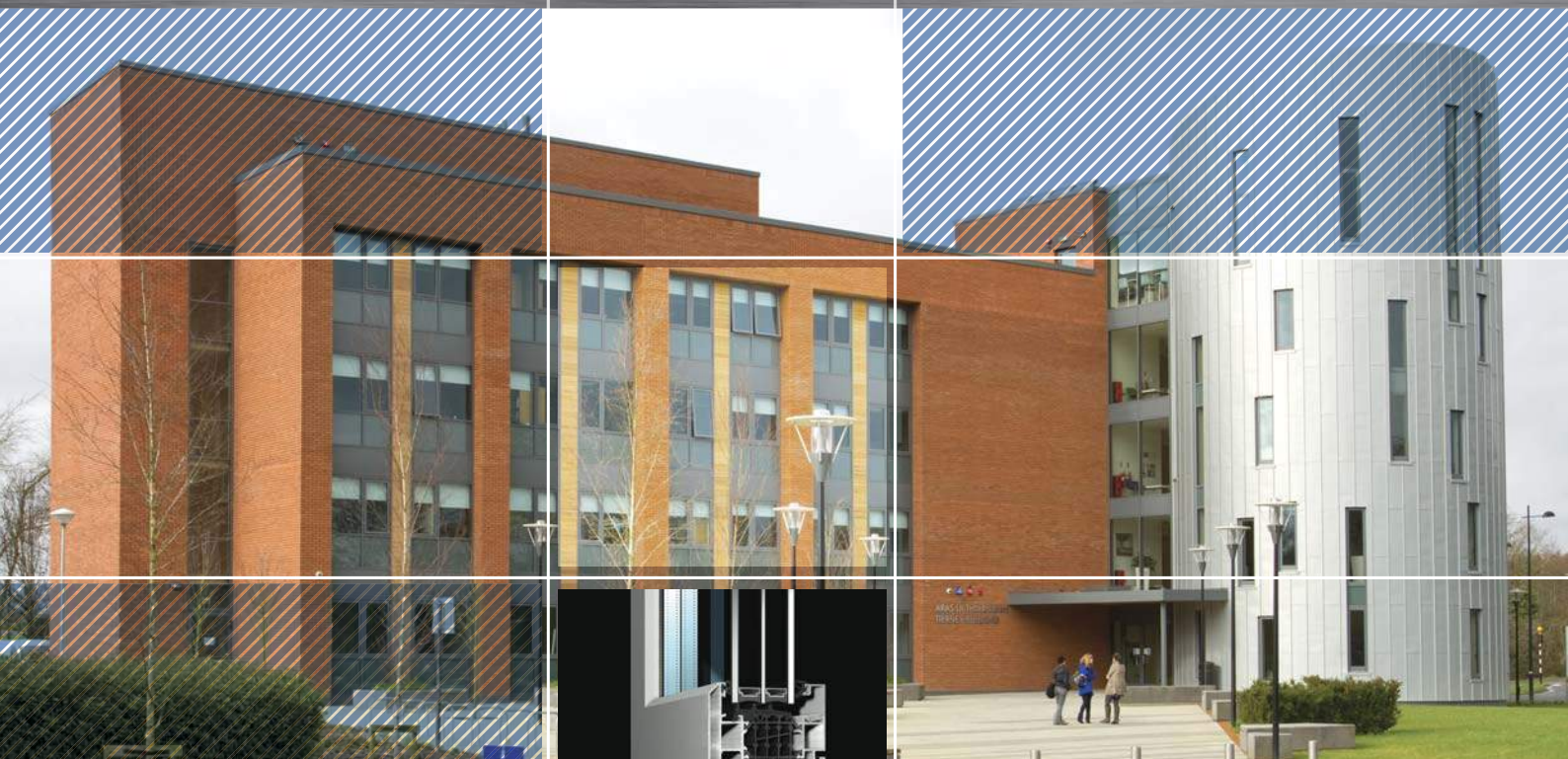
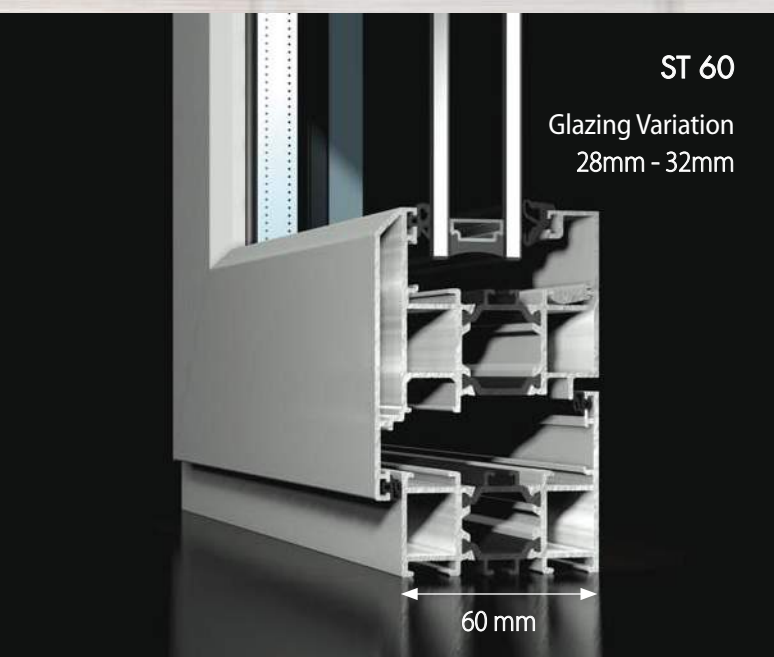
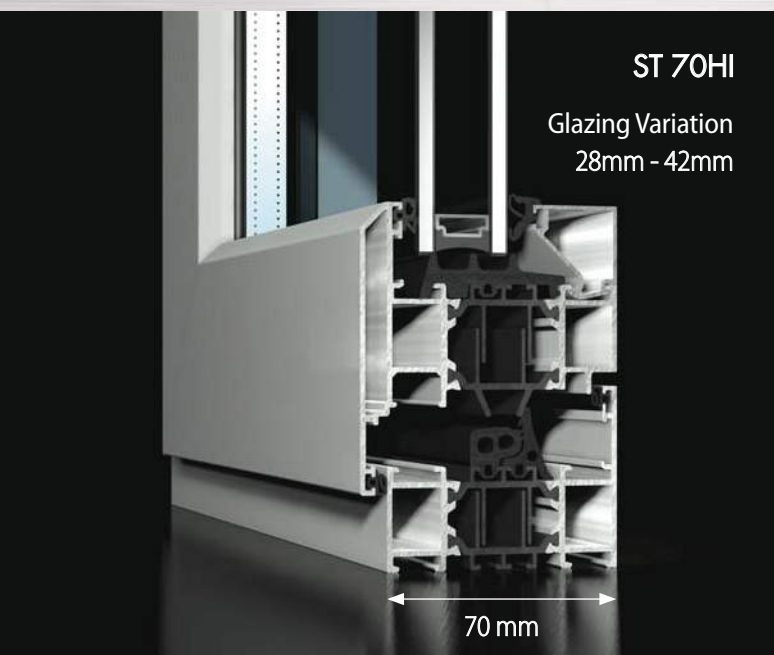
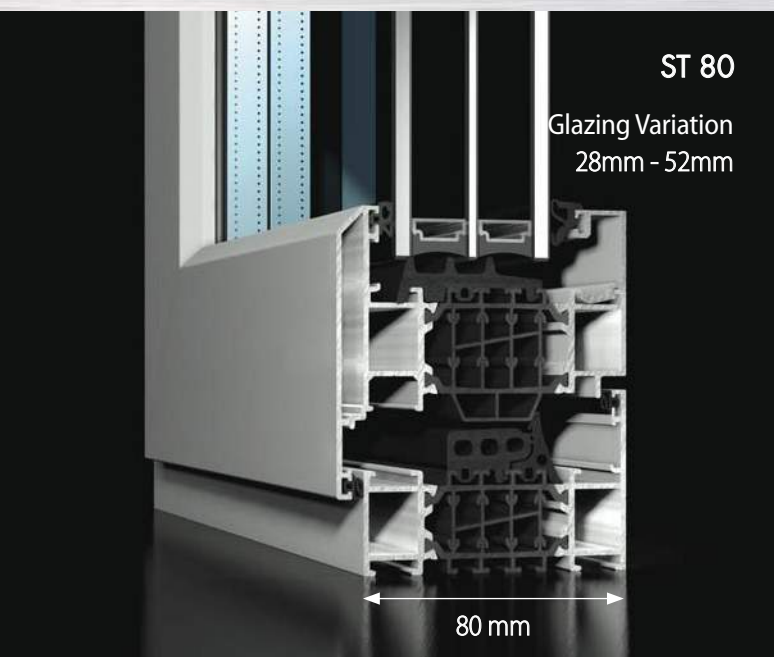


Aluminium in Architecture



ST High Performance
Window + Door
Systems



ST Super Performance Window Systems

The ST Super performing window system incorporates a variety of types and styles including tilt and turn, casement, bead in open out, hopper, parallel, all with multipoint locking facilities for added security, having the same sight lines and dimensions. The versatility of the locking mechanism used in the ST window system allows the designers to incorporate extra-large sashes into the fenestration or façade.

The choice of thermally efficient polyamide cores ranging from 24mm to 44mm allows for the value engineering of the window system to suit the thermal requirements of the project with ease, and without interfering with sight lines. Depending on the chosen window system, the glazing aperture can vary from 28mm up to 52mm allowing you choose the infill panels to suit the project's thermal and acoustic performance requirements.

Using cast aluminium corner and transom cleats, along with place in situ chevrons, all of which can be nailed, increases the speed at which the ST window can be fabricated and assembled and this saving is estimated to be as high as 30%, reducing production and unit costs.

The ST window systems have been fully tested in a UKAS registered laboratory to the following standards:

BS6375 part 1 2009 (weather test)

- Air 600pa (Class 4)
- Water 1050pa (E1050)
- Static 2000pa (Class A5)

BS6375 part 2 2009 (operational strength test)

CASEMENT

Class 3 heavy duty for the cycle test (30,000 cycles)

TILT AND TURN

Class 2 moderate duty for cycle test (10,000 cycles)

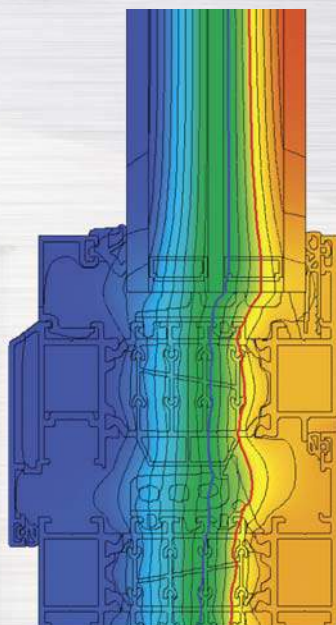
PAS 24 (Meeting Secured by Design requirements)

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Thermal Performance



Typical Whole Window Uw Values

These figures relate to the standard EN window configuration of 1230 x 1480 frame and full opening vent

L2 type window is used for thermal evaluations of commercial projects in accordance with the CE mark

Some commonly used symbols:

- Uf The assembled frame U value
- Ug The centre pane U value of the glass
- Uw The overall thermal figure or U value of the assembled window when glazed
- psi (Ψ) The thermal transmission value of the spacer around the edge of the double/treble glazed unit
- Af The area of the window framing
- Ag The sight line area of the glass
- M The linear metres of the spacer bar

To carry out a thermal evaluation of an assembled window, all you need are the three main values, the frame value Uf, glass and/or insulated panel value Ug and the value of the spacer and follow the simple equation below.

$$\frac{(Uf \times Af) + (Ug \times Ag) + (\Psi \times m)}{\text{Total Area}}$$

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ST 70HI

ST 70

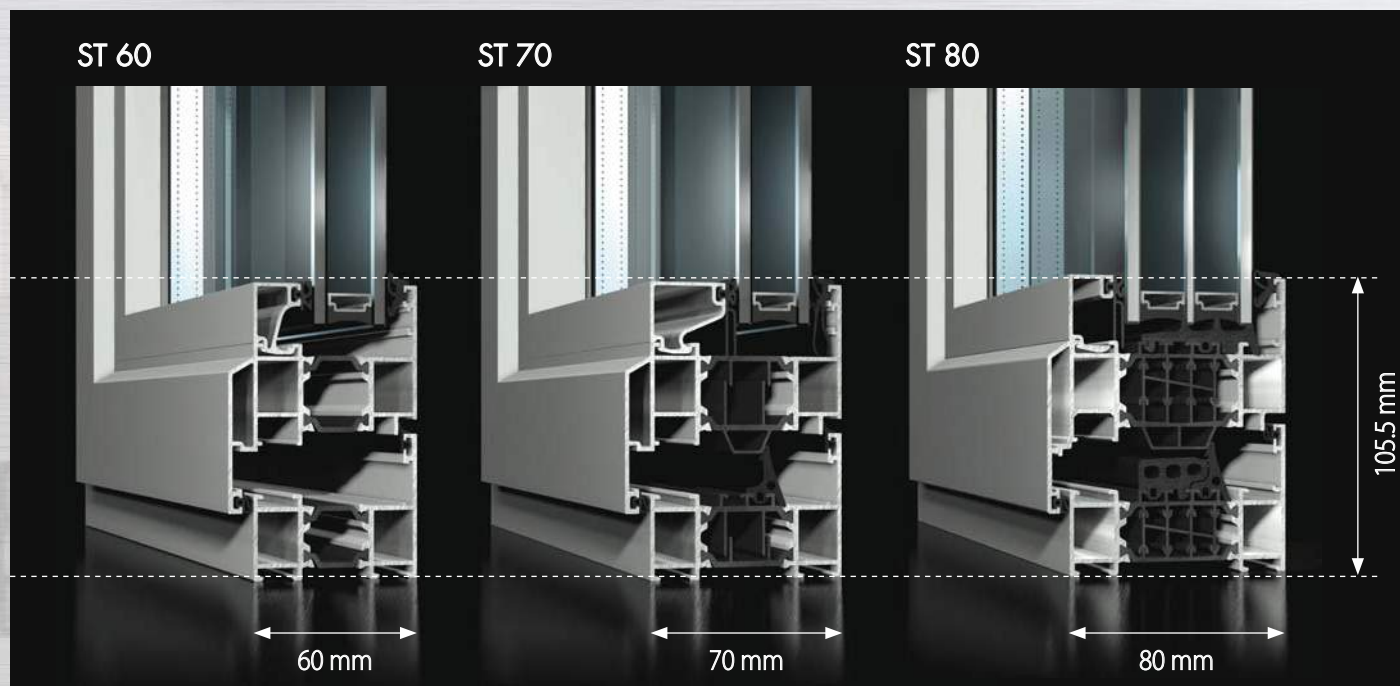


System Details

Glazing Variation: 28mm - 32mm

28mm - 42mm

28mm - 52mm



- 1 Punched and nailed corners increases the speed of production by an estimated 30%, reducing unit cost
- 2 Identical cleats, gaskets, and locking mechanisms are used on all 3 systems, reducing the need for large stock holding and waste
- 3 All multipoint locking mechanisms are front loaded to enhance the thermal efficiency of the systems, allowing for a continuous 8mm rebate

The ST window and door systems are one of the newest aluminium systems on the market. The versatility of the system with its wide variety of profiles, sash types, thermal cores, and similar sight lines, allow you to value engineer a project, shifting the prospects of an order more to your favour.

The systems have been fully tested, allowing them to be used on all locations in the UK and Ireland, including high multi-story construction or buildings built in exposed coastal regions.

ST 60

ST High Performance Rebate Door Systems

The ST Door System has a variety of profiles which allows for different door types to be fabricated and specified. These include casement open-in and open-out doors with three cill options. Integrated fanlights and sidelights can be included in the design of the ST Rebate Door. All doors are internally beaded for extra security and all have been tested to meet with the requirements of Secured by Design.

- Punched and nailed corners increases the speed of production by an estimated 30%, reducing unit cost.
- Identical cleats, gaskets, and locking mechanisms are used on all 3 systems, reducing the need for large stock holding and waste.
- The doors are designed to match the window system and fully integrate with them removing the need for couplers or other such sections.
- All multipoint locking mechanisms are front loaded to enhance the thermal efficiency of the systems, allowing for a continuous 8mm rebate.
- Fitted with a fully weathered dedicated meeting style for double doors.

The ST door systems have been fully tested in a UKAS registered laboratory to the following standards:

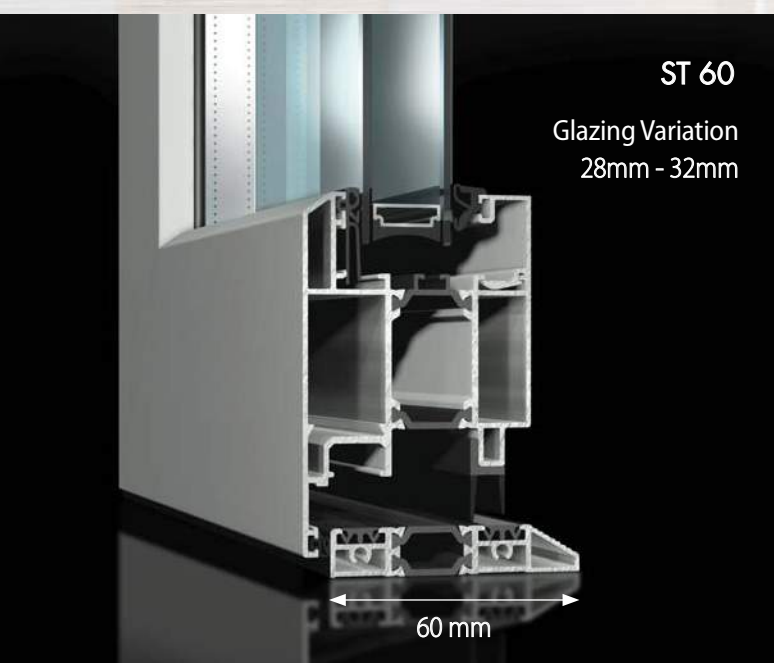
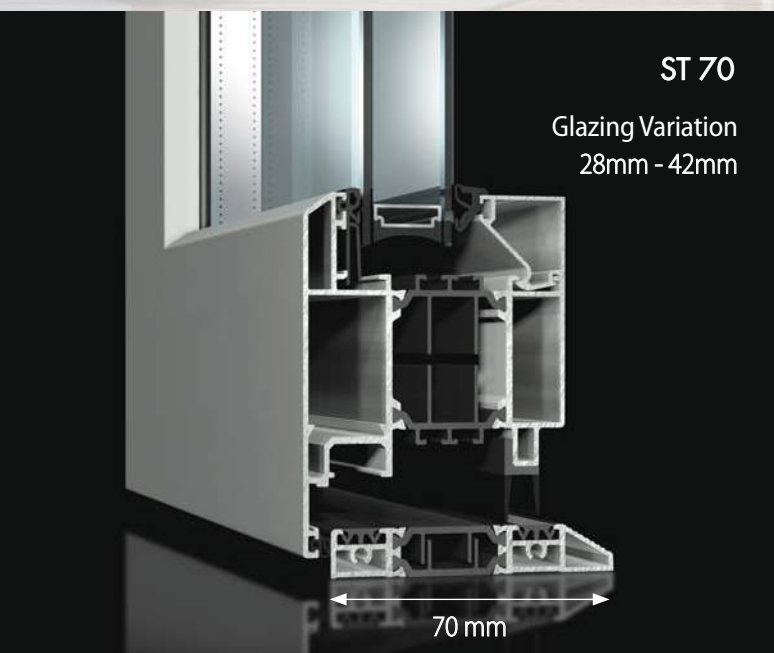
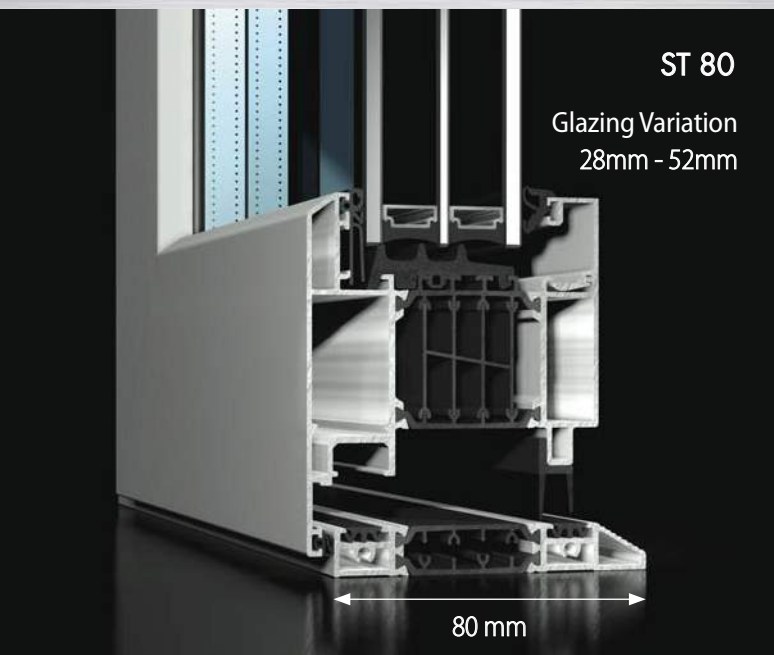
BS6375 part 1 2009 (weather test)

- Air 600pa (Class 4)
- Water 600pa
- Static 2000pa (Class A5)

BS6375 part 2 2009 (operational strength test) (200,000 cycles)

PAS 24 (Meeting Secured by Design requirements)

Certisecure Cert No. 5022





APA Facade Systems

Over the past decades APA Facade Systems has become one of the market leaders in the supply of quality aluminium systems. APA supplies an extensive range of high specification aluminium systems to the UK and Irish markets. These include curtain wall facades, high performance window, door and modular framed systems. APA's experienced team welcomes the opportunity of discussing designs and solutions with the architect throughout all stages of building projects.

TURNING ARCHITECTURAL DESIGNS INTO REALITY

- Curtain Wall Systems
- Modular Framed Systems
- High Performance Window and Door Systems
- Solar Shading

Patented products designed and manufactured in Ireland by APA Facade Systems



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