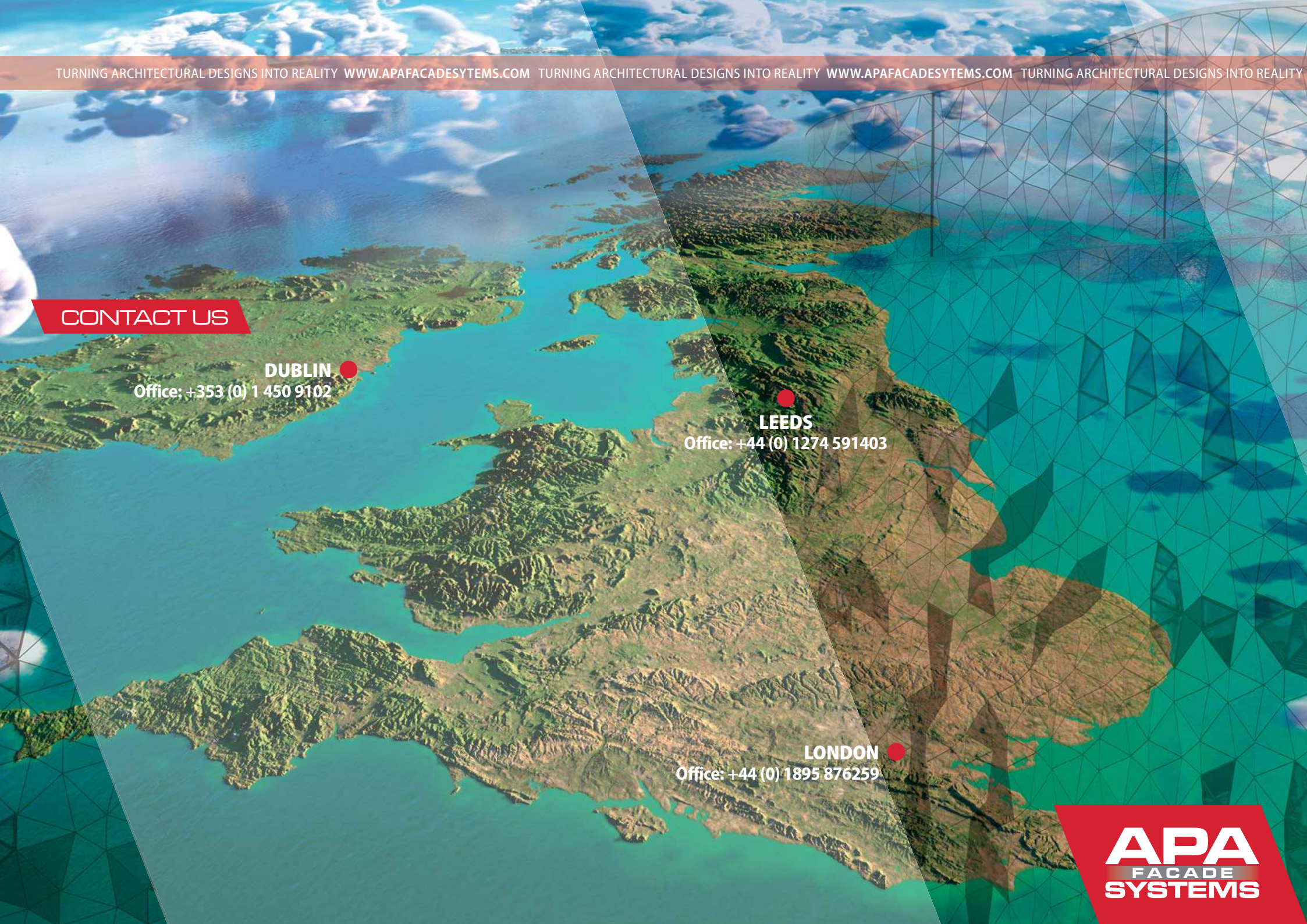

TURNING ARCHITECTURAL DESIGNS INTO REALITY
APA
FACADE
SYSTEMS



CONTACT US

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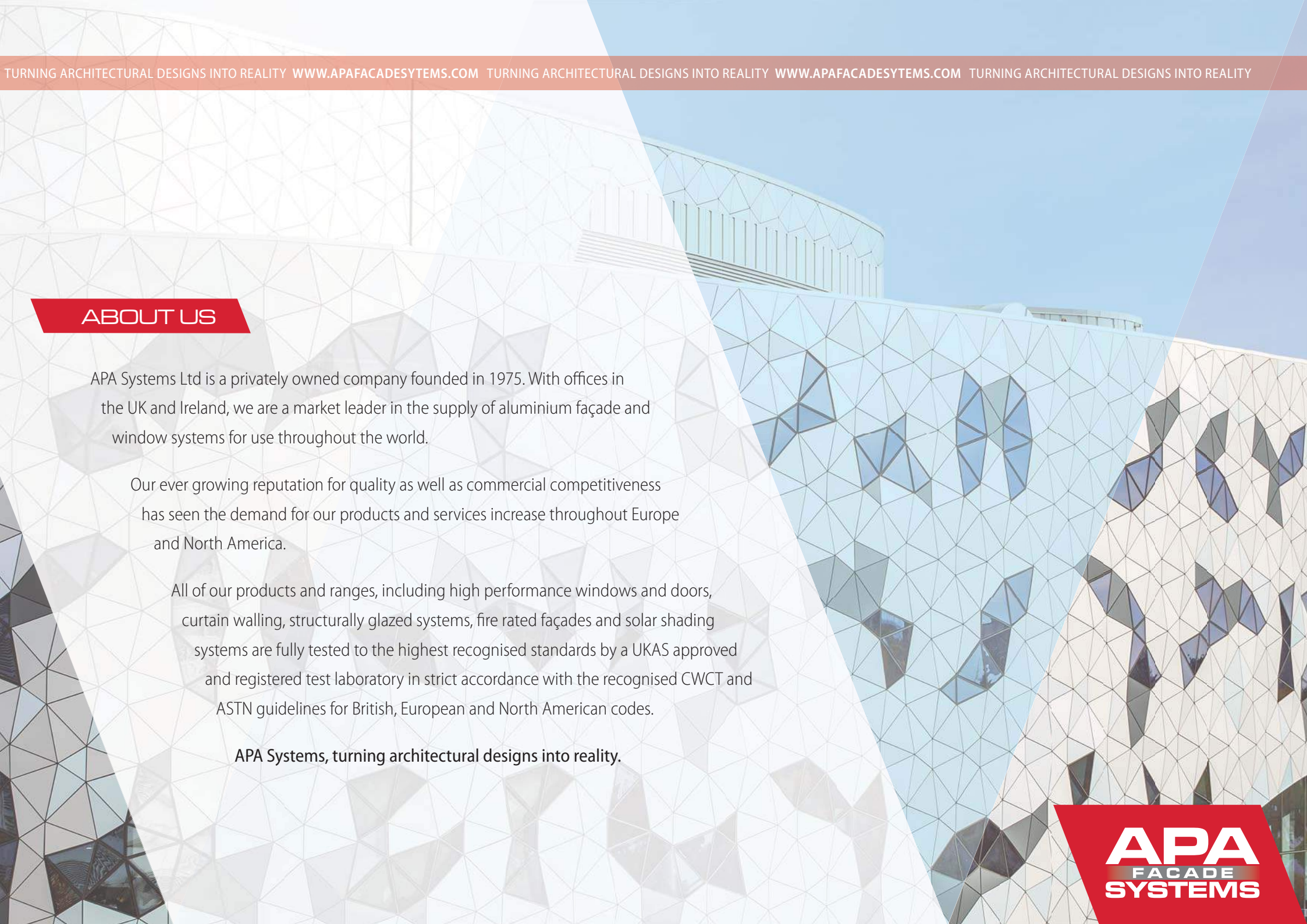
APA FACADE SYSTEMS



ABOUT US

APA Systems Ltd is a privately owned company founded in 1975. With offices in the UK and Ireland, we are a market leader in the supply of aluminium façade and window systems for use throughout the world.

Our ever growing reputation for quality as well as commercial competitiveness has seen the demand for our products and services increase throughout Europe and North America.

All of our products and ranges, including high performance windows and doors, curtain walling, structurally glazed systems, fire rated façades and solar shading systems are fully tested to the highest recognised standards by a UKAS approved and registered test laboratory in strict accordance with the recognised CWCT and ASTN guidelines for British, European and North American codes.

APA Systems, turning architectural designs into reality.

APA FACADE SYSTEMS

TB50 SG

Using the Façade TB50 curtain wall system as its support grid and with no need for capping to retain the glass in place, the Façade TB50 SG system produces a flush finish to the exterior face of the façade. The glass is secured in place using toggles, which are placed into channels, these form part of the central seal of the double glazed units. All joints are weathered using a silicone seal producing a flush non-interrupted surface of glass-to-glass butt joints. Fritting of the edges of the double glazed units is not required when a black spacer bar along with a special Dow Corning edge seal is used.

TB50 SG Façade

APA FACADE SYSTEMS

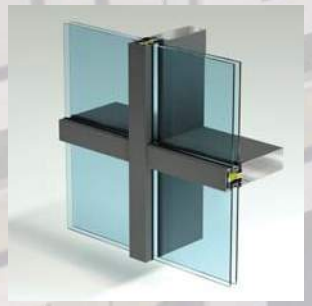
PROJECT

Project: **Grifols Logistics Centre, Dublin** Product used: **TB50 SG**

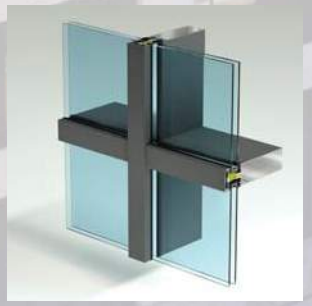
APA FACADE SYSTEMS

TB50/TB60

The façade TB50/TB60 curtain walling system is the ideal choice when it comes to providing a façade or atrium roof light. Combining strength with aesthetic appearance the thermally broken, drained and ventilated façade TB50/TB60 offers the opportunity to provide a modern, sleek looking façade whilst ensuring the thermal, acoustic and structural properties required to meet the highest design standards are achieved. The TB50/TB60 has a multitude of mullions and transoms as well as associated re-inforcement profiles designed to accommodate large spans whilst maintaining a sight line of 50/60mm. The TB50/TB60 systems have been fully tested by a UKAS registered facility to current BS/EN & ASTN standards inc. Secured by Design/PAS 24.



TB50 Façade



TB60 Façade

APA FACADE SYSTEMS

PROJECT

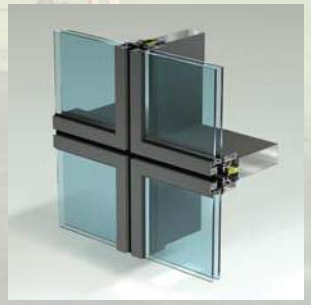
Projects: **Wellington Place, Leeds** | **Research facility, Cambridge** Product used: **TB50**

APA FACADE SYSTEMS

TB35 HI

The TB35Hi is a modular framed façade system with excellent thermal properties. Utilising the façade TB50 / TB60 curtain wall systems as its supporting grid, creating flexibility and allowing it to be used in a variety of grid sizes. Combinations of various framing profiles allow for the integration of raised as well as flat insulated panels along with concealed top hung, open out sashes. Each modular frame is 34mm in width, combined with a consistent shadow gap of 14mm the overall site line is a guaranteed 80mm (one of the slimmest on the market).

The TB35HI system has been fully tested by a UKAS registered facility to current BS/EN standards.



TB35 HI Façade

APA FACADE SYSTEMS

PROJECT

Project: **St. Vincent's Private Hospital, Dublin | Kildare County Council offices** Products used: **TB35 HI**

APA FACADE SYSTEMS

BRISE SOLEIL

A wide variety of elliptical blades ranging in size from 100mm to 450mm form part of the APA Systems Façade Brise Soleil which can be used to enhance any buildings optimum solar shading and thermal insulation.

Through an extensive range of fixing brackets the APA Systems BS systems provides the architect with a wealth of flexibility when it comes to designing a feature façade. The system itself can either be installed directly into our range of ST Windows, say as part of a buildings ribbon window, or as part of a more traditional Curtain Wall Grid.

The fixing of either horizontal or vertical panels of Brise Soleil to any of the APA Façade Systems has been made easy with the use of a specially designed bracket, which in turn has been fully tested for load bearing capacity by the CWCT.

The APA Façade BS system was dynamically tested for a prolonged period of time using an aero engine. The system was subjected to winds of between 50Km to 160Km per hour for a prolonged period of time with no damage of any kind recorded. Being manufactured from extruded aluminium, colour, structural stability and long term longevity are not an issue.

APA FACADE SYSTEMS

PROJECT

Project: **Various examples of Solar Shading** Product used: **Façade BS**

APA FACADE SYSTEMS

TB35 HI

European Test Standards	Result
Air Permeability	600pa
Water Tightness	600pa
Water Tightness *(Dynamic)*	600pa
Wind Resistance	2400pa
Hose Test	AAMA Standard
Impact Test	500Nm

Advantages

- Standard mullion depths available from 90mm - 275mm
- Glazing thickness from 28mm to 36mm
- 80mm external sight line
- Excellent thermal performance
- Available in dual colour at no additional cost
- Fully integrated vent and panel system
- Consistent 14mm shadow gap
- Integrated solar shading systems available

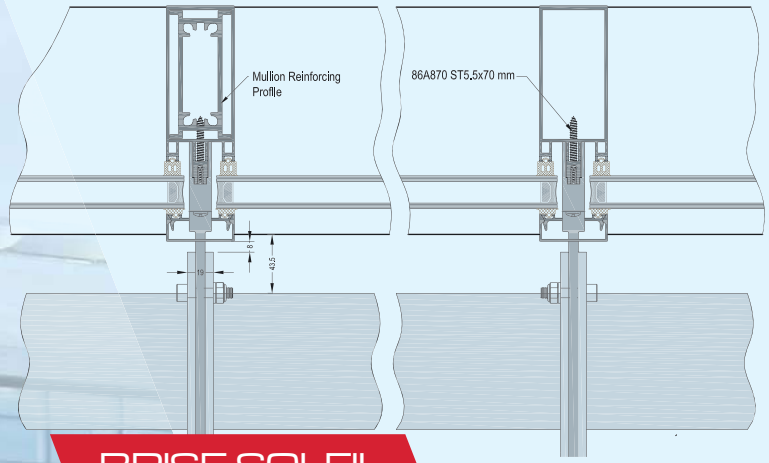
TB50 SG

European Test Standards	Result
Air Permeability	600pa
Water Tightness	1200pa
Water Tightness *(Dynamic)*	900pa
Wind Resistance	2400pa
Hose Test	AAMA Standard
Impact Test	500Nm

Advantages

- Standard mullion depths available from 90mm - 275mm
- Glazing thickness up to 52mm
- 50mm external sight line
- Excellent thermal performance
- Available in dual colour at no additional cost
- Fully integrated Concealed Frame Vents available
- Suitable for roof application (subject to design parameters)
- Non interrupted external surface
- Interchangeable cap options available to either plane
- Integrated solar shading systems available

TEST DATA



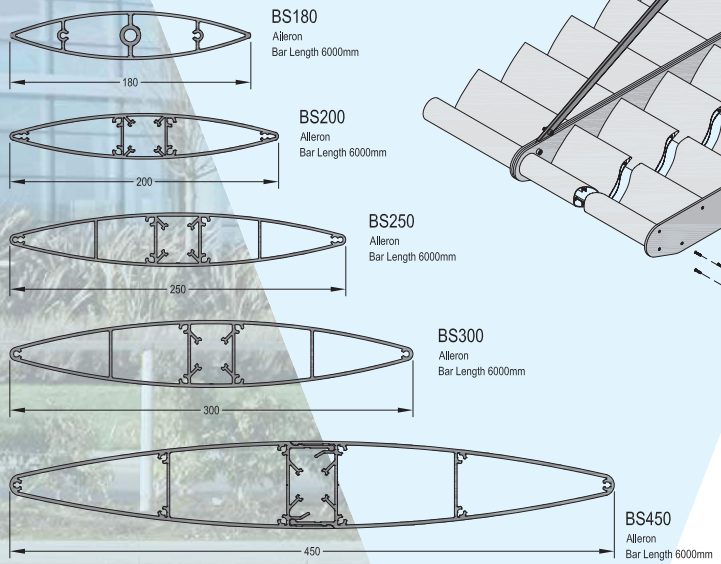
TB50/60

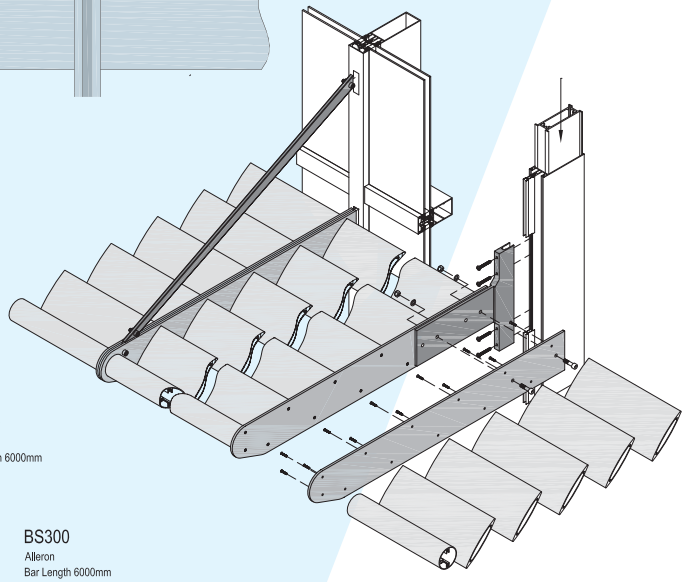
European Test Standards	Result
Air Permeability	600pa
Water Tightness	1200pa
Water Tightness *(Dynamic)*	900pa
Wind Resistance	2400pa
Hose Test	AAMA Standard
Impact Test	500Nm

Advantages

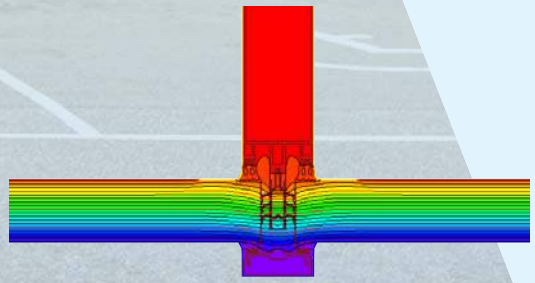
- Standard mullion depths available from 90mm - 275mm
- Glazing thickness up to 52mm
- 50mm / 60mm external sight line
- Excellent thermal and acoustic properties
- Available in dual colour at no additional cost
- Fully integrated vents available (including Parallel Sashes)
- Variation in aesthetic external cap options available to either plane
- Integrated solar shading systems available
- 30 minute non-structural fire rated system available

BRISE SOLEIL





Compatibility
The Façade BS Standard is suitable for all APA Façade Systems



APA FACADE SYSTEMS

ST WINDOWS

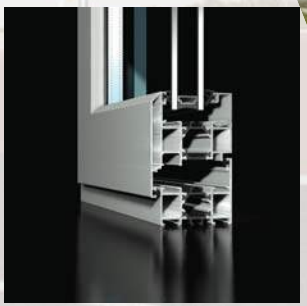
The ST high performance window system incorporates a wide variety of types and styles to meet all project requirements, tilt and turn, casement, beaded in open out, hopper style or parallel sash all with multipoint locking facilities for added security whilst catering for glazing apertures from 28mm up to 52mm.

Due to the carefully engineered design of our window systems we are able to maintain identical sight lines throughout allowing the client to value engineer a project from elevation to elevation or even floor to floor to ensure specification compliance, budgetary restraints and aesthetic appearance are not a problem.

ST80 Window Façade

ST70 HI Window Façade

ST70 Window Façade



ST60 Window Façade

APA FACADE SYSTEMS

PROJECT

The use of cast aluminium corner and transom cleats, along with place-in-situ chevrons, all of which can either be nailed or crimped, increases the speed at which the APA ST windows can be fabricated thus reducing production costs.

All of our systems are fully tested by a UKAS registered facility to current BS/EN standards including Secured by Design/PAS 24.

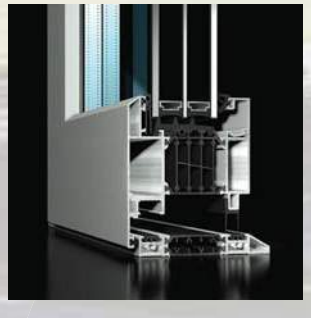
Project: **Olympic Way, London** Products used: **ST70 Window & Door system, ST80 Window system**

APA FACADE SYSTEMS

ST DOORS

The ST door system has a variety of profiles to allow for different door types to be specified and fabricated, including Open In and Open Out doors with an option of three sill types. The doors are designed to match and fully integrate with the ST Window Systems eliminating the need for additional couplers.

All our ST door systems are internally beaded and are fully tested by a UKAS registered facility to current BS/EN standards including Secured by Design/PAS 24.



ST80 Rebate Door

ST70 Rebate Door

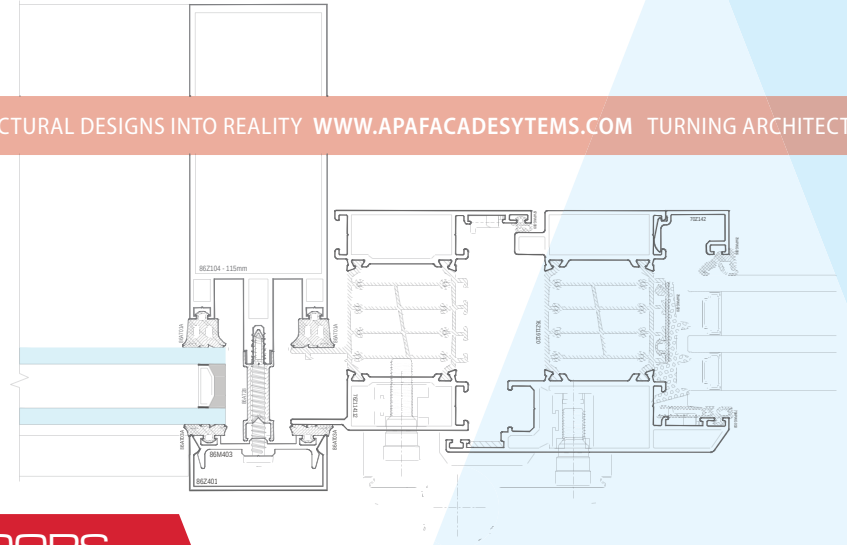
ST60 Rebate Door

APA FACADE SYSTEMS

PROJECT

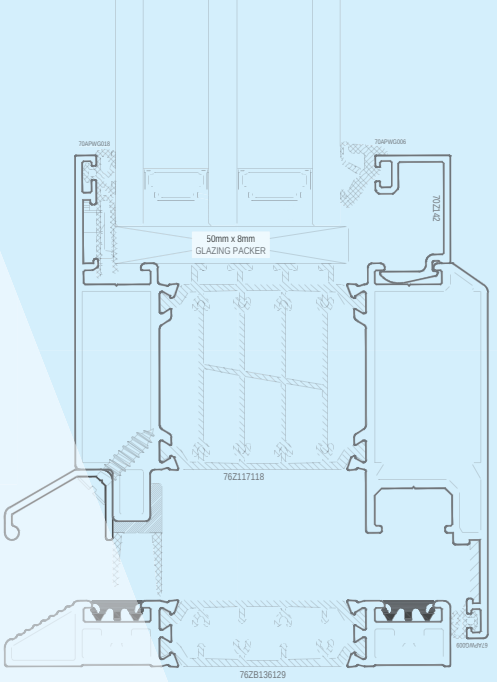
Project: **Milltown, Dublin** Products used: **ST80/ST70/ST60**

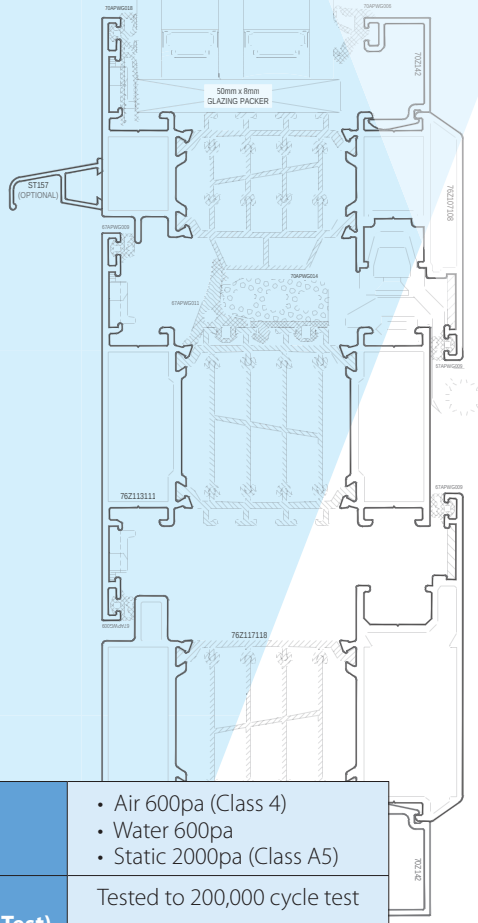
APA FACADE SYSTEMS



ST DOORS

- Punched and nailed corners increases the speed of production by an estimated 30%
- Identical cleats, gaskets and locking mechanisms on all 3 systems reduces stock holding and waste
- All multipoint locking mechanisms are front loaded thus increasing the thermal performance and providing a continuous 8mm rebate
- Double doors are fitted with a fully weathered dedicated meeting style



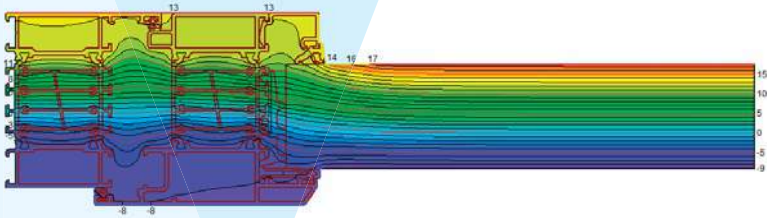


BS6375 part 1 2009 (Weather Test)	• Air 600pa (Class 4) • Water 600pa • Static 2000pa (Class A5)
BS6375 part 2 2009 (Operational Strength Test)	Tested to 200,000 cycle test
PAS 24	(Meeting Secure By Design requirements)
Certisecure	Cert No. 5022

ST80 Rebate Door

ST70 Rebate Door

ST60 Rebate Door



TEST DATA

ST WINDOWS

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 cycle test (30,000 cycles) TILT AND TURN Class 2 Moderate duty cycle test (10,000 cycles)
PAS 24	(Meeting Secure By Design requirements)
Certisecure	Cert No. 5023

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/triple glazed unit*

Af *The area of the window framing*

Ag *The sight line area of the glass*

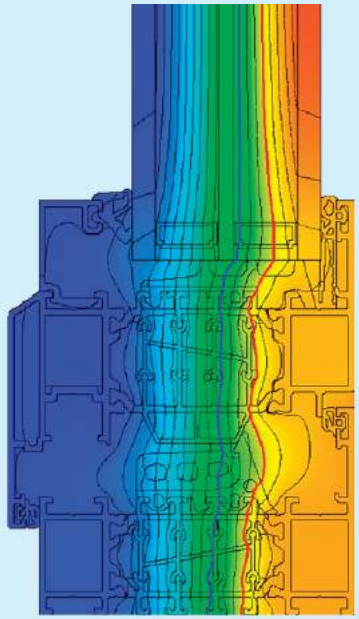
M *The linear metres of the spacer bar*

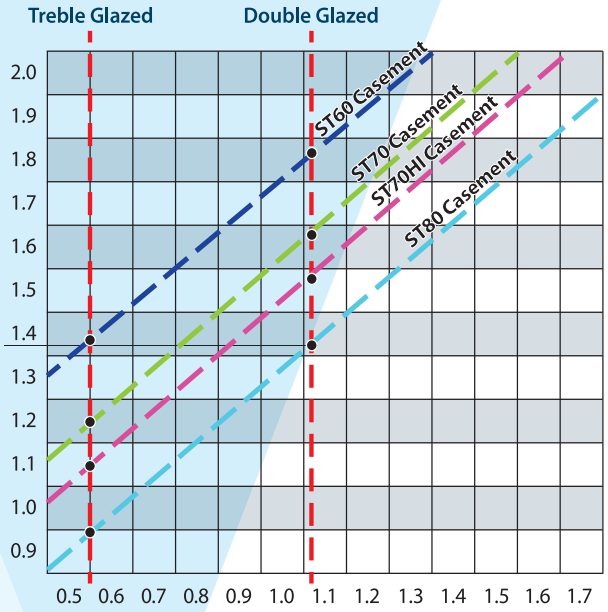
To carry out a thermal evaluation of an assembled window, all you need are the three main values, the frame value Uf, glass and/or insulated panel value Ug and the value of the spacer and follow the simple equation below.

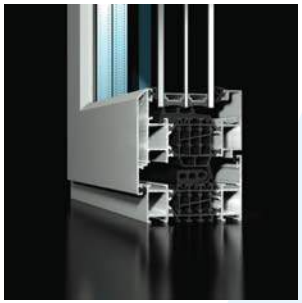
$$\frac{(Uf \times Af) + (Ug \times Ag) + (\Psi \times m)}{\text{Total Area}}$$

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.







ST80 Window Façade

ST70 HI Window Façade

ST70 Window Façade

ST60 Window Façade

APA FACADE SYSTEMS

BIM

The days of designing in a disconnected, two-dimensional world are coming to an end. Building Information Modelling (BIM), is a new approach to design, based around the creation of information rich, intelligent models.

As a process, it aims to change the way the construction industry works. The entire project design team bring together their designs in 3D, and those models also contain information. Access to the BIM library in a Revit format, is simple and easy to use. APA Systems range of products are all available as BIM models, ensuring that additional technical assistance is provided to architects, specifiers and clients alike.

Bio-skeletal construction view

Proposed finished view

APA FACADE SYSTEMS

THE CE MARK

The CE Mark is a mandatory conformity marking for products placed on the market in the European Economic Area (EEA). A CE Marking indicates to a customer that a product conforms to specific European technical standards, known as harmonised European Norms (hEN). It is mandatory for manufacturers of construction products, including windows and doors, to apply a CE Marking to the products.

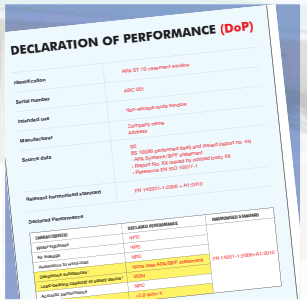
APA provide a Declaration of Performance certificate to every customer in either a physical paper copy, or electronically on their website.

CE

Company name and Address
13

BS EN 14351-1:2006 + A1:2010
APA ST 70 casement window
ABC001
Non-escape route window

Water-tightness	NPD
Air-leakage	NPD
Resistance to wind-load	NPD
Dangerous substances	None
Load-bearing capacity of safety device	350N
Acoustic performance	NPD
Thermal transmission	<2W/m$_2$K



(DoP): **Declaration of Performance form**

APA FACADE SYSTEMS

ENVIRONMENT

APA Systems are constantly striving towards our goal of environmental excellence. In addition to the materials inherent life expectancy, aluminium is infinitely recyclable making it the material of choice for balancing the demand of a growing economy with the need to help preserve the environment. Recycling aluminium requires 95% less energy and thus produces 95% fewer greenhouse gas emissions (GHG) than produced during primary production whilst still retaining 100% of the materials mechanical properties.

APA Systems product ranges have been designed with the environment and BREEAM/ LEED as a major contributory factor, helping you to achieve credible project ratings.

APA FACADE SYSTEMS

TESTING

Building regulations and project specific requirements are constantly evolving and we at APA Systems are no different when it comes to our range of products.

Through constant R&D and testing, we are maintaining our position as one of the market leaders in the supply of quality aluminium fenestration systems.

With all products fully tested by a UKAS registered testing facility in strict accordance with recognised CWCT and ASTN guidelines for British, European and North American codes you can be sure that our range of aluminium fenestration systems will provide you with the highest quality, robust and high performing solution to enhance any residential or commercial development.

CENTRE FOR WINDOW AND CLADDING TECHNOLOGY

bre

Exova Warringtonfire

International Organization for Standardization ISO 9001

WINTECH BUILDING ENVELOPE TESTING

AIR TIGHTNESS TESTING

UKAS TESTING 2223

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