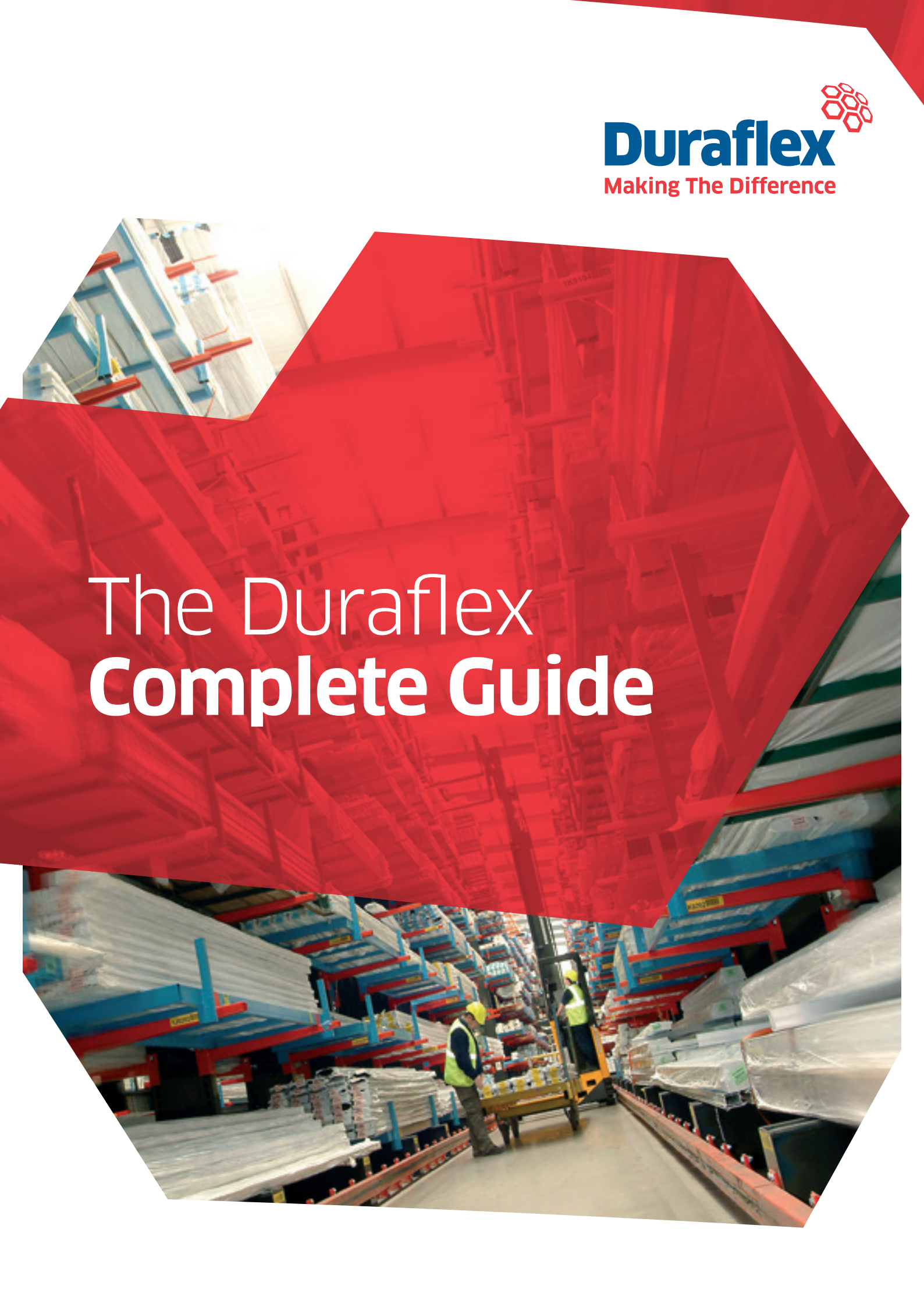




The Duraflex Complete Guide

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Discover Duraflex

As one of the UK's leading manufacturers of PVCu window and door systems, with a long and distinguished pedigree in extrusion.

Duraflex, established in 1953, offers a formidable combination of service, support and product innovation. Delivering a comprehensive suite of products to serve all market sectors, a complete range of marketing and sales support tools - all backed by a dedicated team, who are time-served industry experts.

In 2004, Duraflex opened a purposed built extrusion facility with an impressive 245,000 sq/ft in Gloucestershire, from which it has built an enviable reputation for quality, service, and as a proven partner to its long-standing customer base, ranging from industry start-ups to the UK's leading fabricators.



Choosing Duraflex

Duraflex offer one of the most complete PVCu window and door systems on the market, meticulously designed and tested to meet the exacting demands of today's fabricators, installers and end users alike. With over 60 years industry experience, we have built a reputation for quality and customer excellence across all areas of the business.

All of our products are listed in the BIM Library and can be found either on our website www.duraflex.co.uk or via www.bimstore.co.uk

Designed to suit any sector, from new build and private, to social and commercial, the iconic Diamond Suite is a truly versatile system, providing

fabricators' with the ability to manufacture virtually any window or door style, whilst offering complete system compatibility, thanks to it's fully integrated design. Whether fabricating casement, flush, tilt and turn, the innovative fully reversible window, patio, or bi-fold door, Duraflex offer a solution to match your needs.

This guide has been designed to provide you with a comprehensive overview of our product, service and support offering and how Duraflex could be the right partner for your business.



Discover Duraflex

60+ Years
Extrusion Experience

Industry Leading
Product Performance

20,000
Frames Made Using
Duraflex Every Week

Dedicated Technical Support

Complete Product Portfolio

Exceptional Innovation Pipeline

Company History

Backed by over 60 years in the fenestration industry, Duraflex create the ideal environment of innovative product design, quality production, reliable logistics and a comprehensive customer support solution.

Staffed by a dedicated team who understand the specialist needs of the industry means Duraflex are able to provide customers with continually evolving, industry leading products and services to meet the exacting demands of the changing marketplace.

Duraflex is formed, initially focussed on manufacturing Aluminium products

1953

Acquired by RTZ and moved into the window and doors sector

1970

2010

Cavity Closer launched

2008

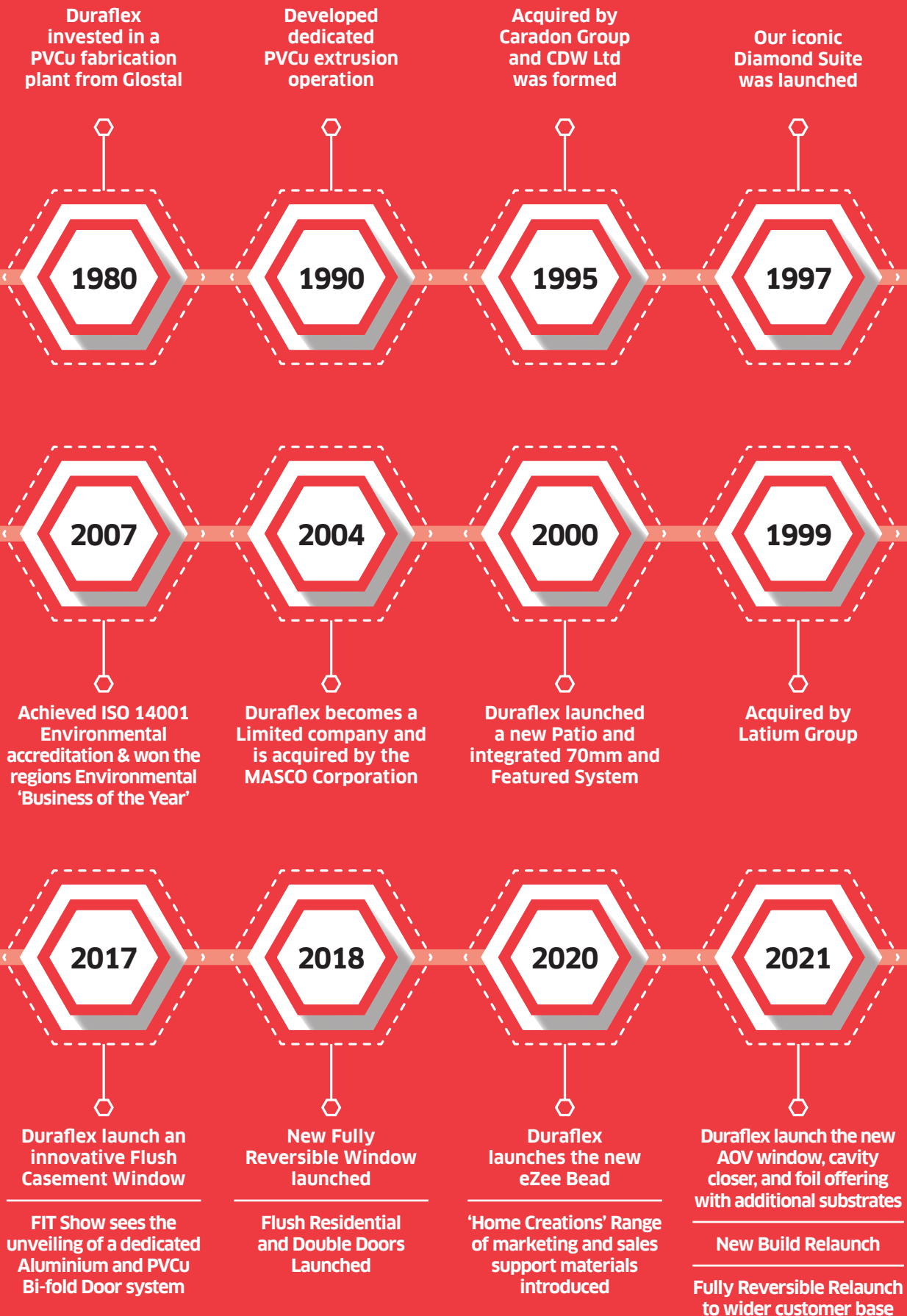
Q-Lon - the World's best weather seal launched as standard across the Diamond Suite

2014

New fleet of delivery vehicles commissioned and launched

2015

'Be Inspired' range of marketing and sales support material introduced





Product Performance

For complete peace of mind and to demonstrate the advanced performance of the Diamond Suite, each and every Duraflex product undergoes rigorous testing to ensure they meet the highest standards and are fully compliant.

Testing Programme

Meticulously designed and manufactured to meet the specific demands of architects, specifiers, fabricators and installers; Duraflex have an ethos of investing in design, product development and continuous improvement.

For total peace of mind every product undergoes a rigorous testing programme to ensure it meets the latest regulatory standards; including all products within the suite achieving PAS 24 and BS 6375 security and weather performance.

Security

When fabricated and installed to a Duraflex Approved specification, the Diamond Suite is able to achieve market leading security performance, including PAS 24 Enhanced Security and Secured by Design.

Weather Performance

Built to endure the most extreme weather conditions that the UK has to offer, our window and door systems have been successfully tested to achieve BS 6375 Severe Weather Performance.

You are advised to seek guidance from the Duraflex Technical Department for specific data regarding min/max sizes, strength, wind loading calculations etc.

Thermal Performance

We are committed to designing and developing sustainable products that help protect our environment and deliver outstanding energy and thermal efficiency.

The multi chamber design of our profile delivers exceptional thermal performance across our window and door systems; enabling the Diamond Suite to achieve A++WER as certified by the British Fenestration Ratings Council (BFRC), and U-Values as low as 0.8 when used in conjunction with high performance glass units.

Q-Lon Weatherseal

The world's best weatherseal gasket, Q-Lon is supplied in all Duraflex profile - as standard. Delivering exceptional compression recovery of 99%, the best acoustic and thermal performance, and a lifetime guarantee - as standard.

Fabrication

All main profiles are of multi-chambered construction for ultimate performance. The Diamond Suite is fully welded, however a number of our products may also be mechanically jointed. All products must be fabricated in strict accordance with Duraflex technical manuals.

Hardware

Duraflex window and door systems have been designed to be compatible with a wide range of hardware, with a particular focus on safety, security and aesthetics.

Glass and Glazing

With various glazing options available, our window and door systems can be supplied with Double or Triple glazed glass units, depending on the thermal and acoustic requirements.

Reinforcement

Where a given project demands enhanced structural strength, steel or aluminium reinforcement sections can be incorporated (fully enclosed) within the Diamond Suite profile.



Quality Standards

To demonstrate the quality, performance and compliance of our products, we are committed to an ongoing product testing and accreditation programme. Duraflex are proud to hold the following standards and awards:

Description			
 Certificate No. 21/5896	Assessment report number 21/5896. The Duraflex cavity closer system for use as a cavity closer and window or door acceptor and to form and opening in masonry cavity walls during construction.	 BS EN 12608:2016 KM 738048	Specification for white PVCu extruded hollow profiles with heat welded corner joints for plastic windows. Duraflex 65mm & 70mm Diamond Suite Window system.
		 BS EN12608:2016 PAS 24:2016 KM 738047	Specification for enhanced security performance of windows for domestic applications. Duraflex 65mm & 70mm casement, tilt & turn and Flush.
	Windows and doors thermally simulated and achieve a range of energy ratings from A to E. Duraflex Diamond system also achieves "U" values from the current building regulations down to a value of 0.8W/m²k.	 BS EN12608:2016 PAS 24:2016 KM 738049	Specification for enhanced security performance of domestic residential doorsets and Bi Fold.
 FM 738875	BSI Registered. Quality Management System. BS EN ISO 9001:2015.	 BS 4873:2016 PAS 24:2016 KM 738050	Specification for enhanced security performance for Aluminium Bi Fold.
 EMS 738873	BSI Registered. Environmental Management System. BS EN ISO 14001:2015.	 Official Police Security Initiative	Secured by Design Police Initiative.
 OHS 738874	BSI Registered. Occupational Health and Safety. BS EN ISO 18001:2007.	 British Plastics Federation	BPF Windows Group provide codes of practice, guidelines & recommendations for windows, doors & conservatories.

The 70mm Diamond Suite

The Duraflex Diamond Suite is the result of extensive R&D, product innovation, technological advances and an unwavering commitment for quality and continuous improvement. The resulting offering delivers a complete suite of products that enables virtually any style of window or door to be manufactured and installed.

Our profile is manufactured in either the traditional bevelled (putty line) frame and bead system, or the defined featured system, with options available in a wide choice of colour and finish options, ensuring a wide range of aesthetics can be achieved to suit any application.

Duraflex supply all profile with pre-inserted Q-Lon weather seal, as standard. Consistently regarded as the world's best gasket, thanks to its performance across a wide temperature range, its thermal, acoustic and recovery properties, all of which are backed by a lifetime guarantee.

The introduction of our advanced multi-chambered profile has further increased the thermal efficiency of the Diamond Suite, allowing band A++ to be achieved and a U-value as low as 0.8.

To compliment our window and door systems and to ensure that Duraflex projects are seamlessly suited, we also offer an extensive range of ancillaries, including sills, trims, structural couplings, adaptors and an exquisite new Georgian Bar range.

In a competitive market you need a **supplier who you can rely on**



The Diamond Suite

Fully Integrated
Featured & Bevelled System

Flush Fitting Sash

Innovative Fully
Reversible Window

Georgian Bar Collection

Multi-chambered Profile

Enhanced Thermal Efficiency and no Reinforcement Required

Q-Lon Weatherseal Gasket

The World's Best Gasket with Lifetime Guarantee

Bespoke Aluminium &
PVCu Bi-fold Door –
**Secured by Design &
Part Q as Standard**



Comprehensive Colour Collection

Industry Leading Performance
'Outstanding Weather Performance' and PAS24

Building Regulations Compliance

The Building Regulations are minimum standards for design, construction and alternations to virtually every building. These regulations are made under powers provided in the Building Act 1984 and apply to England and Wales. They exist to ensure the health and safety of people in and around buildings and provide energy conservation as well as ensuring appropriate facilities for disabled people.

The Building Regulations 2010 cover the construction and extension of buildings and are supported by Approved Documents, which set out detailed practical guidance on compliance. All Duraflex products have been designed to be fully compliant with the latest Building Regulations in relation to our window and door systems.*

*The Building Regulations are revised in-line with the Government's commitment to reduce CO2 emissions and are subject to change; to ensure that you have the most accurate information regarding current legislation, we recommend that you refer to the current version at all times. All of the latest 'Approved Documents' can be found and downloaded for free on the Planning Portal website at: www.planningportal.gov.uk

All Duraflex products have been designed to be fully compliant with the latest Building Regulations in relation to our window and door systems.



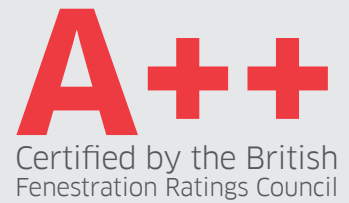
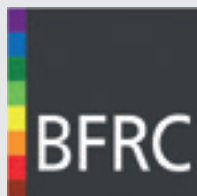
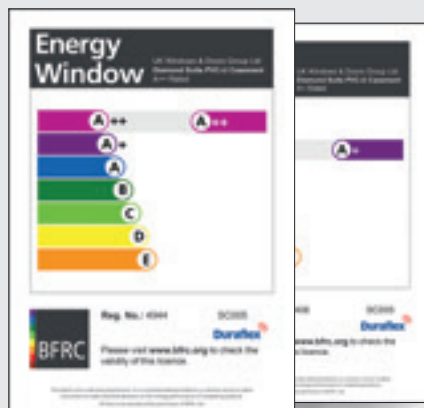
Energy Efficient Products

Window Energy Ratings (WER) provide information about the energy efficiency and thermal performance of windows. Thermal performance ratings are calculated by our in-house approved simulator and verified by the BFRC; the ratings scale goes from A++ to E, with 'A++' being the most efficient, and 'E' the least. The latest Building Regulations require all new homes to have windows with a minimum 'C' WER rating.

During the rating process the energy efficiency level is calculated and verified by BFRC, which is totally independent from any manufacturing or installing company. Manufacturers of BFRC rated product and BFRC Authorised Installers are audited to ensure that their energy efficient windows are achieving the stated rating. The BFRC energy ratings allow you to compare varying window products and choose the most suitable for your application.

In line with governments desire to reduce CO² emissions, building regulations require tightening of building thermal efficiency including windows and doors. The Duraflex Diamond suite is able to meet the highest Window Energy Ratings, offering A++ rated energy efficient window systems that allow you to deliver sustainable and highly thermally efficient products to your customers. The Diamond Suite delivers market-leading A++ rated windows, with **U-values as low as 0.8 and WER of A++**, certified by the British Fenestration Ratings Council (BFRC).

Duraflex's highly experienced Technical Support Team includes a dedicated in-house BFRC Approved Simulator, qualified to calculate U-values and Window Energy Ratings, dedicated to supporting customers with their respective thermal calculation requirements and to advise on regulatory compliance.



Environmental Sustainability

The issue of environmental change is one that affects us all, from global warming to conservation to energy consumption, and the ways in which we can help to lessen the impact are endless.

By minimising the impact of our activities, Duraflex can help to develop a process which constantly evolves with the changes in our world.

Duraflex commitment to recycling

From our drive to be more environmentally friendly and reduce scrap, Duraflex have introduced a number of initiatives to reduce the amount of waste created during the extrusion process.

The installation of technical resources has made a significant improvement to the amount of scrap sent off-site for recycling. By removal of the co-extruded gasket from a profile section, the remainder of the section can be re-processed internally.

Duraflex commitment to sustainability

There are processes a company can implement to help the environment, but these are of little use without proof or the results or without independent monitoring.

Duraflex took the decision to submit their 'continuous improvement' processes under the widely recognised ISO 14001 Environment Management System. ISO 14001 requires a company to work within a stringent framework of procedures and processes which ultimately have a positive effect on both the company in question and the environment as a whole.

Duraflex successfully obtained registration to ISO 14001 during 2007 by identifying and acting upon aspects within the business that did (or could) affect the environment. They then formulated plans to eradicate or at least reduce any future impact.

The system is independently monitored every six months by BSI with new suggestions and processes being implemented continually.

Our environmental policy commits us to ongoing improvements that will help us to reduce carbon emissions from transport and energy use, improve energy efficiency in our business and offer more energy-efficient products to our customers, as well as further reducing waste and promoting recycling in all areas of our business.

All our profile is 100% lead free, with Duraflex being one of the first UK systems houses to eliminate Cadmium from our PVCu formulations and phasing out the use of lead based stabilisers.

In addition, all Duraflex laminated products are manufactured in accordance with European Legislation and are produced using an eco-friendly primer system.





Recycling PVCu

As a responsible manufacturer, Duraflex seeks excellence in every aspect of business and, being conscious of the world we live in, we aim to set the same standards in our commitment to the environment. We accept our responsibilities and recognise our obligation to reduce our impact on the environment; in fact, Duraflex has been recycling its own profile waste and off-cuts for many years and were one of the first UK systems houses to eliminate all lead from our profile.

PVCu is widely recognised as a highly sustainable material, and unlike true single-use plastic, PVCu for use in window and door systems have an average lifespan of 35 years. Furthermore, it can be recycled up to 10 times for future use, giving a PVCu window a typical lifespan of over 350 years, thus justifying its sustainability credentials as a truly environmentally friendly building material.

As an ISO 14001 Environmental Management System accredited company, Duraflex continually seeks to develop and enhance our environmental performance and minimise our carbon footprint. Areas of focus include low emission transport and fuel efficiency, improving energy consumption within our business, designing more energy efficient products, as well as reducing waste and promoting recycling throughout our organisation.

In-line with the Duraflex environmental policy, the majority of our scrap is recycled, with very little (less than 1%) non-recoverable scrap being sent off-site for recycling in other non critical applications (pipes, conduit, furniture etc). Duraflex recycled almost 100% of its production waste, thus significantly reducing the amount of waste going to landfill.

Our dedicated closed-loop recycling process includes us collecting PVCu waste from our fabricators, after which time the waste is re-ground before being formulated into new products.

We are one of only a few extrusion companies that recycle only Duraflex PVCu frames, offcuts and scrap, ensuring that no post-consumer waste has contaminated our material and enabling us to uphold quality standards and the structural integrity and performance of our products.





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70mm Casement Window

Features

Frame Offering

- ◀ Choice of 4 outer frame heights, 46mm, 58mm, 68mm and 85mm
- ◀ Choice of 3 transom width - 63mm, 72mm and 86mm
- ◀ 5 chamber outer frame and sash options
- ◀ All sections available featured and bevelled
- ◀ Available fully welded or mechanically jointed
- ◀ Rebated and flush sash options.

Weatherseals

- ◀ High performance Q-Lon gasket supplied in all mainframe sections with a manufacturer lifetime guarantee.

Thermal and Steel Reinforcing

- ◀ Galvanised steel range to suit topography requirements
- ◀ Aluminium range for mechanical joint requirements
- ◀ All reinforcements are designed to achieve required security and weathering requirements, where required.

Finishes

- ◀ Signature white on non lead PVCu
- ◀ Range of solid colour and woodgrain foils.

Glazing

- ◀ Choice of 4 glazing thicknesses - 24mm or 28mm for double glazed units. 36mm or 44mm for triple glazed
- ◀ Georgian bars in 20mm, 28mm and 50mm Dummy Transom widths
- ◀ eZee bead options for 28mm and 36mm.



Ancillaries

- ◀ Comprehensive range of add-ons, couplers, corner posts, bay poles available to suit any installation
- ◀ Mock horns available, mechanically jointed for traditional aesthetics.

Hardware

- ◀ Full depth eurogroove, accepts a comprehensive range of espagnolette and shootbolts
- ◀ Positioned to the inside of the sash allowing for night vent locking if required
- ◀ Secured by Design and Part Q specification available.

Ventilation

- ◀ Proprietary ventilation devices can be used on all designs
- ◀ A range of head details available including large outer frame, head extension and dedicated one piece head vent (see cavity closer for further details).

Thermal Performance

- ◀ A range of A++ to C and 0.8 to 1.6 'U' value performance are achievable with the Duraflex Diamond Suite. See separate energy performance data sheet for details.

Tested to BS 6375-1:2015

Air Permeability	Water Tightness	Wind Resistance
Class 4 600Pa	Class E 1050Pa	Class BE 2400Pa

Performance

Security

- ◀ Range of hardware available with varying degrees of security, up to enhanced security and Secured by Design (SBD) status
- ◀ Glass clips for externally glazed windows also available to adhere to SBD.

Thermal

1st October 2010 saw the minimum thermal requirement for domestic replacement windows set at a minimum WER of 'C' or a minimum 'U' value of 1.6 W/m²K.

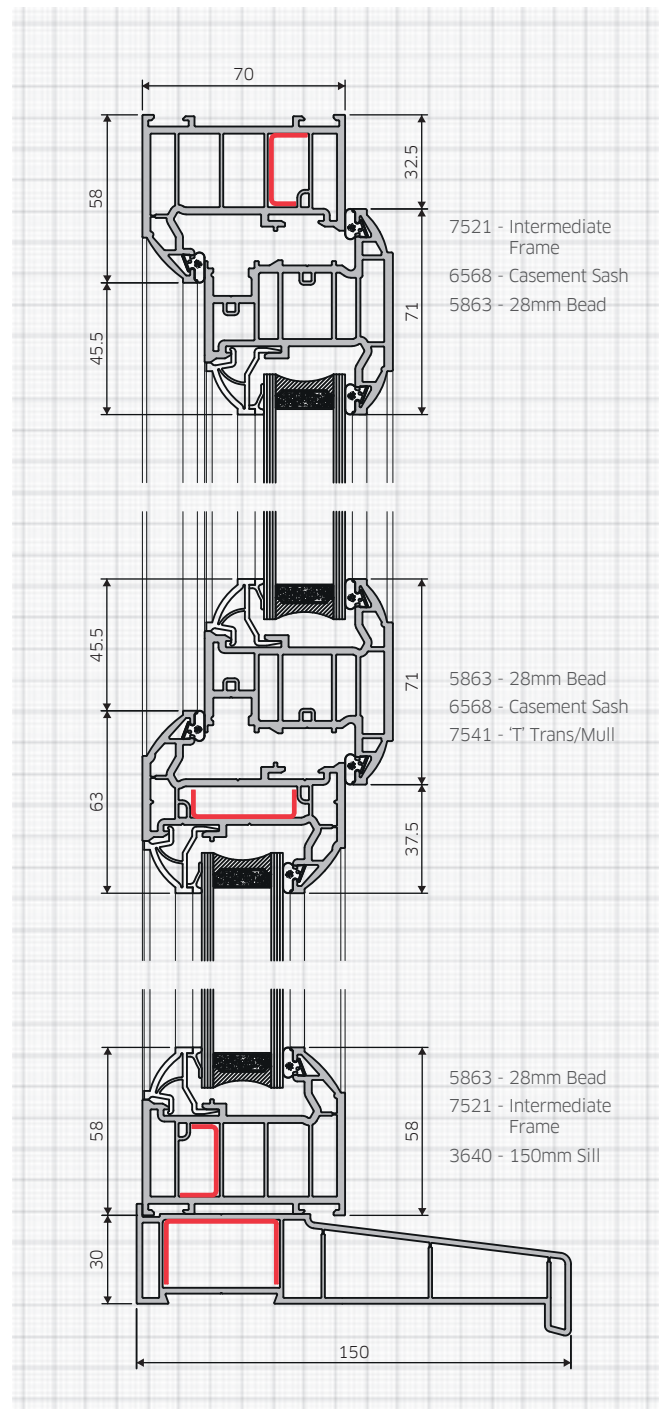
A very large number of simulations have been carried out by 'approved' simulators at Duraflex providing a comprehensive range of WER's (Window Energy Ratings) for A++, A+, A, B and C ratings and 'U' values as low as 0.8W/m²K using the 'standard' European window style and size.

Acoustic

Acoustic testing has been carried out at Exova using standard sealed units and those comprising laminated glass, a maximum reduction of 41dB Rw was achieved. In addition testing has been carried out on windows fitted with ventilators in both open and shut situations and our Q-Lon seal enhances acoustic performance.

General Features

- ◀ **Q-Lon** - 99% compression recovery, high performance acoustic and weather sealing properties with lifetime guarantee. Operates perfectly in temperatures ranging from -20°C to 70°C
- ◀ **Lead Free** - environmentally friendly, calcium organic lead free formulation
- ◀ **Finishes** - comprehensive range of natural wood and solid colour foils
- ◀ **Structural** - comprehensive range of coupling sections to suit various applications
- ◀ **Glazing Options** - internal and external
- ◀ **Featured and Bevelled.**



70mm Tilt & Turn Window



Features

Frame Offering

- ◀ Choice of outer frame - 68mm and 85mm height
- ◀ Choice of 3 transom widths - 63mm, 72mm and 86mm
- ◀ Dedicated 65mm sash
- ◀ All sections available featured and bevelled
- ◀ Available fully welded or mechanically jointed.

Weatherseals

- ◀ High performance Q-Lon gasket supplied in all mainframe sections with a manufacturer lifetime guarantee.

Thermal and Steel Reinforcing

- ◀ Galvanised steel range to suit topography requirements
- ◀ Aluminium range for mechanical joint requirements
- ◀ Range of thermal reinforcements (with strip steel) for higher 'U' value and ERP requirements
- ◀ All reinforcements are designed to achieve required security and weathering requirements, where required.

Finishes

- ◀ Signature white
- ◀ Range of solid colour and woodgrain foils.

Glazing

- ◀ Choice of 4 glazing thicknesses - 24mm or 28mm for double glazed units. 36mm or 44mm for triple glazed
- ◀ Georgian bars in 20mm, 28mm and 50mm Dummy Transom widths.

Ancillaries

- ◀ Comprehensive range of add-ons, couplers, corner posts, bay poles available to suit any installation.

Hardware

- ◀ Full depth eurogroove positioned centrally, accepts a wide range of perimeter locking and concealed hardware
- ◀ Secured by Design and Part Q specification available.

Ventilation

- ◀ Proprietary ventilation devices can be used on all designs
- ◀ A range of ventilation options available including large outer frame, head extension and dedicated one piece head vent (see cavity closer for further details).

Thermal Performance

- ◀ A range of A++ to C and 0.8 to 1.6 'U' value performance are achievable with the Duraflex Diamond Suite. See separate energy performance data sheet for details.

Tested to BS 6375-1:2015

Air Permeability	Water Tightness	Wind Resistance
Class 4 600Pa	Class 9A 600Pa	Class A3 2400Pa



Performance

Security

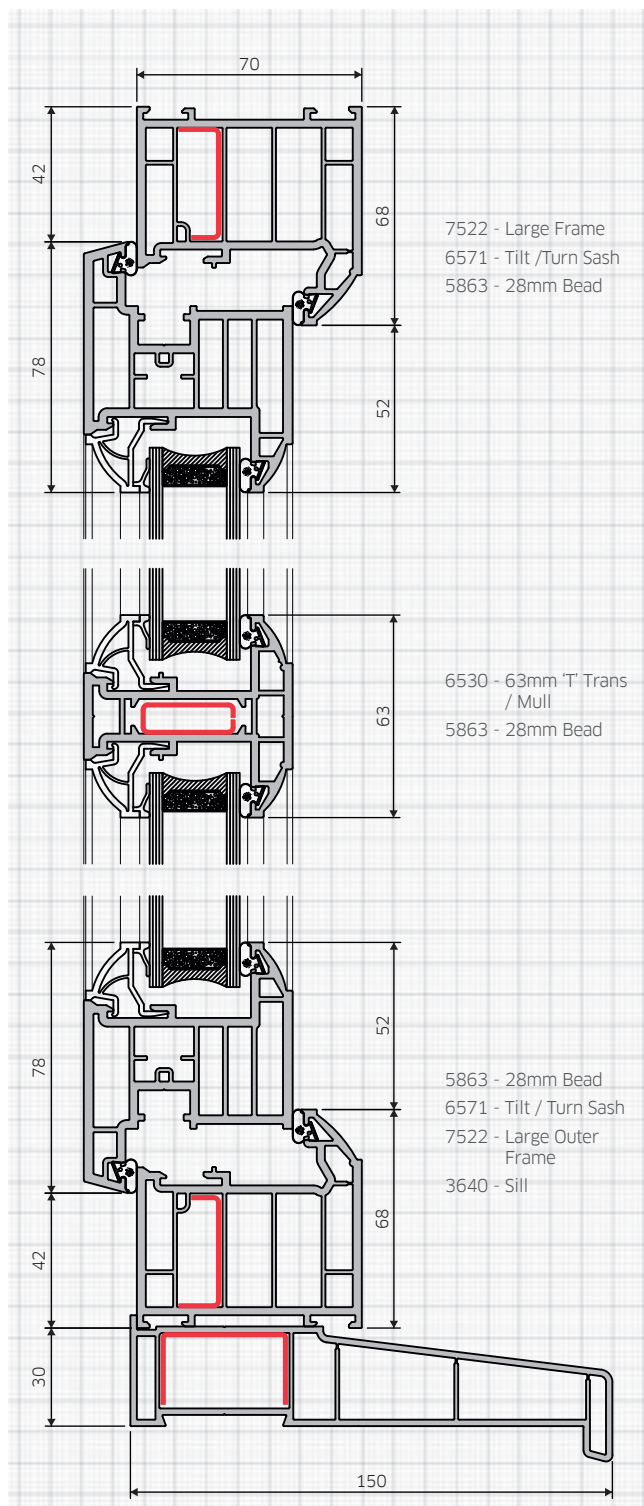
- ◀ A wide range of hardware options available
- ◀ Concealed and perimeter locking options
- ◀ Enhanced security, Secured by Design hardware also available.

Thermal

- ◀ A large number of simulations have been carried out by 'approved' simulators at Duraflex providing a comprehensive range of WER's (Window Energy Ratings) for A++, A+, A, B and C ratings and 'U' values to 0.8 - 1.6W/m²k using standard readily available components, lower 'U' values are available with the use of special glass combinations.

General Features

- ◀ **Q-Lon** - 99% compression recovery, high performance acoustic and weather sealing properties with lifetime guarantee. Operates perfectly in temperatures ranging from -20°C to 70°C
- ◀ **Lead Free** - environmentally friendly, calcium organic lead free formulation
- ◀ **Finishes** - comprehensive range of natural wood and solid colour foils
- ◀ **Structural** - comprehensive range of coupling sections to suit various applications
- ◀ **Featured and Bevelled.**



70mm Flush Window

Features

Frame Offering

- ◀ Choice of 4 outer frame heights, 46mm, 58mm, 68mm and 85mm
- ◀ Choice of 3 transom width - 63mm, 72mm and 86mm
- ◀ 5 chamber outer frame options
- ◀ All sections available featured and bevelled
- ◀ Available fully welded or mechanically jointed.

Flush Sash

- ◀ Flush sash to accept 24mm to 36mm glazing
- ◀ Eurogroove position to allow night vent facility
- ◀ Full depth eurogroove
- ◀ Optional central seal
- ◀ Mechanical and welded sash options
- ◀ Dedicated 'easy fit' Georgian bar system; available in 20mm, 28mm and 50mm Dummy Transom options.

Weatherseals

- ◀ High performance Q-Lon gasket supplied in all mainframe sections with a manufacturer lifetime guarantee.

Thermal and Steel Reinforcing

- ◀ Range of thermal reinforcements for higher 'U' value and ERP requirements
- ◀ Galvanised steel range to suit topography requirements
- ◀ Aluminium range for mechanical joint requirements
- ◀ All reinforcements are designed to achieve required security and weathering requirements, where required.



Glazing

- ◀ Choice of 4 glazing thicknesses - 24mm or 28mm for double glazed units. 36mm or 44mm for triple glazed
- ◀ Georgian bars in 20mm, 28mm and 50mm Dummy Transom widths.

Ancillaries

- ◀ Comprehensive range of add-ons, couplers, corner posts, bay poles available to suit any installation.

Hardware

- ◀ Full depth eurogroove, accepts a comprehensive range of espagnolette and shootbolts
- ◀ Positioned to the inside of the sash allowing for night vent locking if required
- ◀ Secured by Design and Part Q specification available.

Ventilation

- ◀ Proprietary ventilation devices can be used on all designs
- ◀ A range of head details available including large outer frame, head extension and dedicated one piece head vent (see cavity closer for further details).

Thermal Performance

- ◀ A range of A++ to C and 0.8 to 1.6 'U' value performance are achievable with the Duraflex Diamond Suite. See separate energy performance data sheet for details.

Tested to BS 6375-1:2015

Air Permeability	Water Tightness	Wind Resistance
Class 4 600Pa	Class E 1050Pa	Class A5 2000Pa



Performance

Security

- Range of hardware available with varying degrees of security, up to enhanced security and Secured by Design status
- Glass clips for externally glazed windows also available to adhere SBD.

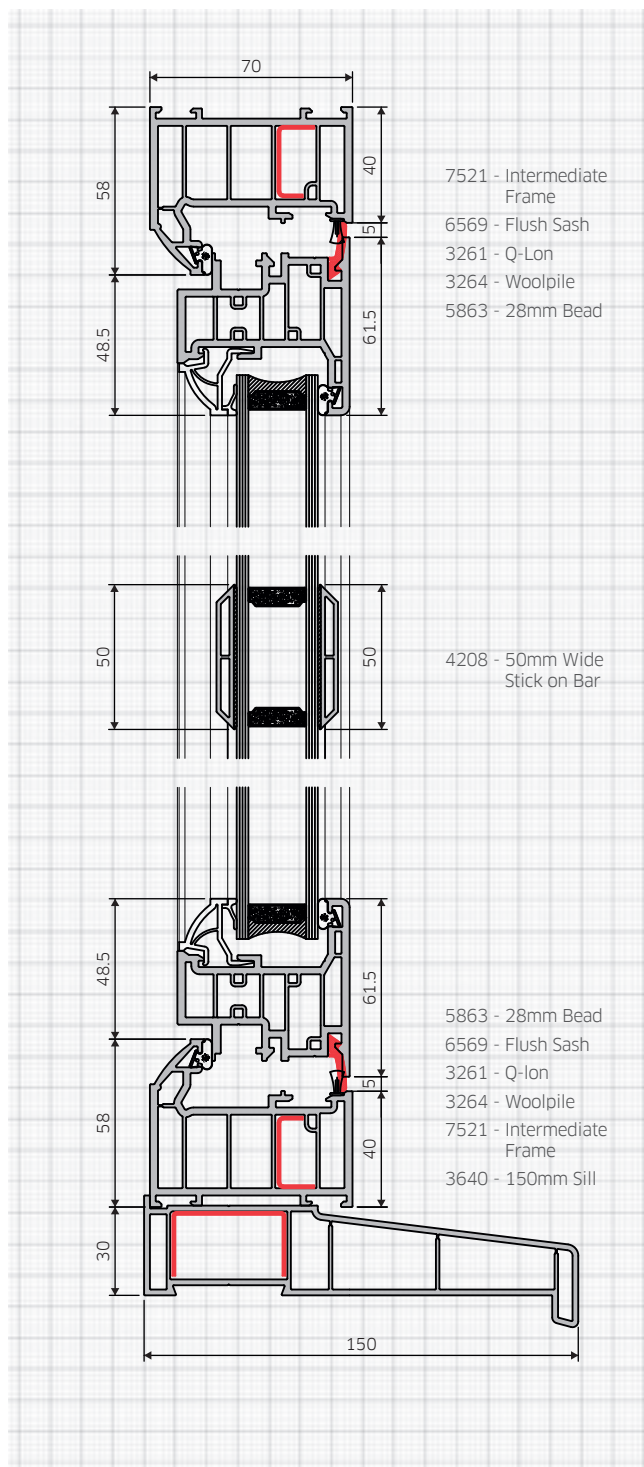
Thermal

1st October 2010 saw the minimum thermal requirement for domestic replacement windows set at a minimum WER of 'C' or a minimum 'U' value of 1.6 W/m²K.

A very large number of simulations have been carried out by 'approved' simulators at Duraflex providing a comprehensive range of WER's (Window Energy Ratings) for A++, A+, A, B and C ratings and 'U' values as low as 0.8W/m²K using the 'standard' European window style and size.

General Features

- Q-Lon** - 99% compression recovery, high performance acoustic and weather sealing properties with lifetime guarantee. Operates perfectly in temperatures ranging from -20°C to 70°C
- Lead Free** - environmentally friendly, calcium organic lead free formulation
- Finishes** - comprehensive range of natural wood and solid colour foils
- Structural** - comprehensive range of coupling sections to suit various applications.



70mm Fully Reversible Window



Our fully reversible window is designed to be manufactured with casement, tilt & turn and side light combinations, making it the most versatile system on the market.

Features

Frame Offering

- ◀ Dedicated outer frame height of 68mm
- ◀ Transom width of 86mm
 - T - Reversible next to reversible,
 - Z- Reversible over fixed light
- ◀ Dedicated flush sash section for all openers
- ◀ Frames available in featured
- ◀ eZee Bead glazing.

Weather seals

- ◀ High performance Q-Lon gasket supplied in all mainframe sections with a manufacturer lifetime guaranty
- ◀ Fitted with an external weather seal as standard.

Reinforcing

- ◀ Aluminium range to suit requirements
- ◀ All reinforcements are designed to achieve required security and weathering specifications.

Finishes

- ◀ Signature white
- ◀ Range of solid colour and woodgrain foils.

Glazing

- ◀ Choice of 2 glazing thicknesses - 28mm for double glazed units. 36mm for triple glazed
- ◀ Astragal bars in 20mm and 28mm widths.

Ancillaries

- ◀ Comprehensive range of add-ons, couplers, corner posts, bay poles available to suit any installation.

Maximum Sizes

- ◀ The minimum/maximum sizes are based on the capability of the gearing and weather testing results are based on a single reversible window.

- Minimum width = 433mm
- Minimum height = 650mm

- Maximum width = 1500mm
- Maximum height = 1800mm

Hardware

- ◀ Dedicated multi-point lock which can achieve Secured by Design. Bespoke hinges to suit size and length
- ◀ Including anti-slam device for added safety.

Ventilation

- ◀ Proprietary ventilation devices can be used on all designs
- ◀ A range of head details available including head extension and dedicated one piece head vent
- ◀ Trickle ventilation can be fitted either through the head of the frame or into the overhead vent (9107)
- ◀ Three restrictor settings for ventilation and security.

Tested to BS 6375-1:2015

Air Permeability

Class 4 600Pa

Water Tightness

Class 9A 600Pa

Wind Resistance

Class BE 2400Pa

Performance

Security

- ◀ Secured by Design can be achieved by using multi-point lock and hinges to suit required level of security
- ◀ Comprehensive range of bespoke reversible hinges to all sash sizes.

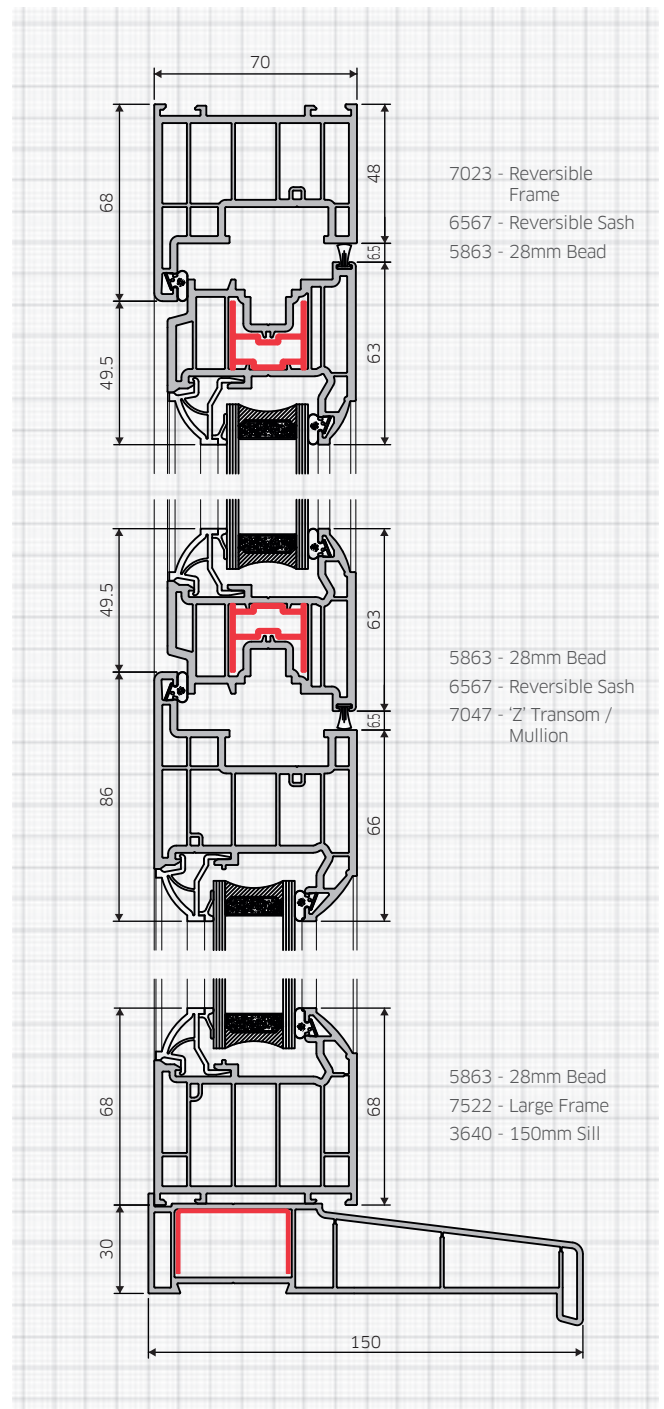
Thermal

1st October 2010 saw the minimum thermal requirement for domestic replacement windows set at a minimum WER of 'C' or a minimum 'U' value of $1.6 \text{ W/m}^2\text{K}$, doors in a similar situation are required to meet a minimum 'U' value of $0.8 - 1.6 \text{ W/m}^2\text{K}$ ($1.6 \text{ W/m}^2\text{K}$ in Scotland).

A very large number of simulations have been carried out by 'approved' simulators at Duraflex providing a comprehensive range of WER's (Window Energy Ratings) for A++, A+, A, B and C ratings and 'U' values as low as $0.8 \text{ W/m}^2\text{K}$ using the 'standard' European window style and size.

General Features

- ◀ **Q-Lon** - 99% compression recovery, high performance acoustic and weather sealing properties with lifetime guarantee. Operates perfectly in temperatures ranging from -20°C to 70°C
- ◀ **Lead Free** - environmentally friendly, calcium organic lead free formulation
- ◀ **Finishes** - comprehensive range of natural wood and solid colour foils
- ◀ **Structural** - comprehensive range of coupling sections to suit various applications.



Aluminium Smoke AOV Window

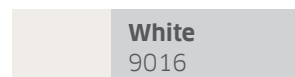
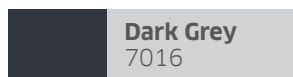


The latest in smoke safety in windows, the Automatic Opening Ventilation window helps to clear lobbies, landings and corridors in the event of a fire. These windows are fitted with a smart actuator from SE Controls which allows for quick and automatic responsiveness to a fire, allowing for occupants to evacuate the building.

Features

- ◀ UKWDG has been audited and accredited by SE Controls to manufacture the 'Smoke' AOV Aluminium Window
- ◀ SE Controls have been manufacturing and fitting high Quality Actuators and control systems for over 35 years
- ◀ UKWDG Aluminium AOV Windows are suitable for all sectors; Residential, commercial, health, education, infrastructure and retail
- ◀ UKWDG will fit the Actuator to the Aluminium AOV window as a standard offering
- ◀ UKWDG will also fit restrictor to enhance safety
- ◀ UKWDG AOV Aluminium window and Actuator have been thoroughly tested to comply with EN12101-2
- ◀ Window comes with a 10 year warranty
- ◀ Once installed and tested by an approved SE Controls contractor/partner, SE Controls will issue declaration of performance, taking full responsibility for placing the Smoke vent onto the market
- ◀ The AOV Aluminium Window is a fully accredited profile system supplied by Duraflex
- ◀ Geometric free area calculation created per window to ensure your compliance
- ◀ Anti-slam mechanism for added safety
- ◀ Flush Sash to enhance aesthetics

4 Standard Colour Options





The SECO Ni 24 40 is a certified and compliant Chain Actuator designed to provide precise and reliable operation for Smoke Ventilation applications.



Top Hung



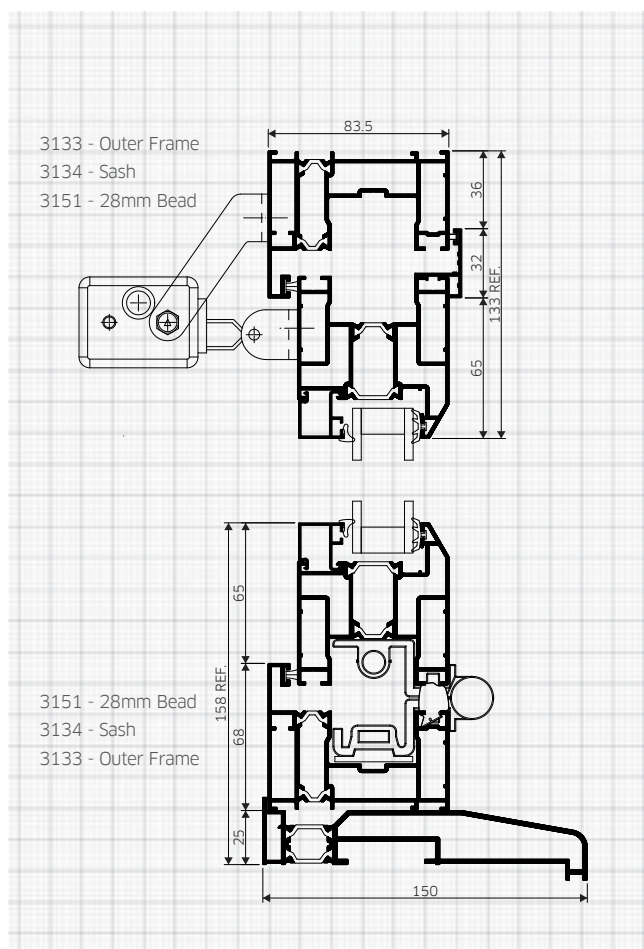
Bottom Hung



Side Hung

Max Sizes (Max weight 100kg per sash)

	Width (mm)	Height (mm)
Top Hung	1500	1200
Bottom Hung	1500	1200
Side Hung	1300	2400



70mm Residential Door

Features

Frame Offering

- < 68mm standard outer frame with an 85mm option
- < A choice of 36mm, 46mm, 58mm and 68mm low PVCu threshold
- < Choice of 3 transom widths - 63mm, 72mm and 86mm and 116mm midrail
- < Choice of open in and open out sashes
- < Available fully featured or bevelled
- < Available fully welded or mechanically jointed transoms/midrails
- < Choice of 2 aluminium low thresholds, disability at 15mm high and refurb with access ramps at 24mm high.

Weatherseals

- < High performance Q-Lon gasket supplied in all mainframe sections with a manufacturer lifetime guarantee.

Reinforcing

- < Galvanised steel range to suit topography requirements
- < Galvanised steel lock prep steel
- < Aluminium range for mechanical joints
- < All reinforcements are designed to achieve required security and weathering requirements.

Glazing

- < Choice of 4 glazing thicknesses - 24mm or 28mm for double glazed units. 36mm or 44mm for triple glazed
- < Georgian bars in 20mm and 28mm widths.

Ancillaries

- < Comprehensive range of add-ons, couplers, corner posts, bay poles available to suit any installation.



Hardware

- < Fully depth eurogroove, accept comprehensive range of multi-point locks
- < Compatible with a wide range of knuckle, rebate and flag hinges
- < Secured by Design and Part Q specification available.

Ventilation

- < Proprietary ventilation devices can be used on all designs
- < A range of head details available including large outer frame, head extension and dedicated one piece head vent (see cavity closer for further details).

Tested to BS 6375-1:2015

Air Permeability	Water Tightness	Wind Resistance
Class 3 600Pa	Class 7A 300Pa	Class C3 1200Pa

Performance

Security

- < Choice of multi-point high security locks along with pencil, rebate and flag hinge options
- < Available to achieve Secured by Design status.

Thermal

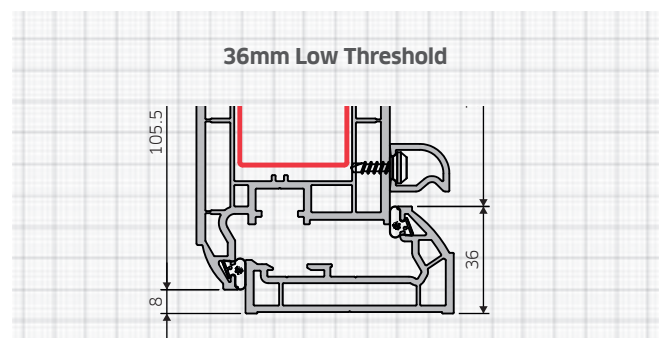
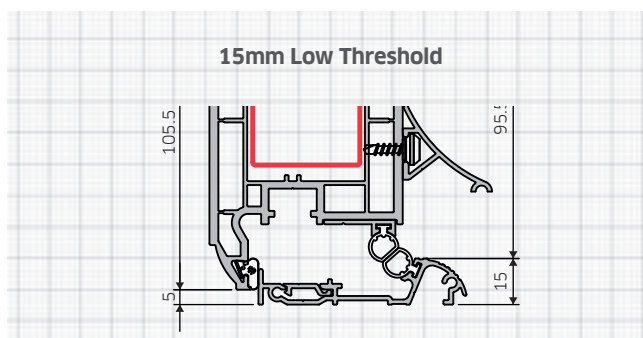
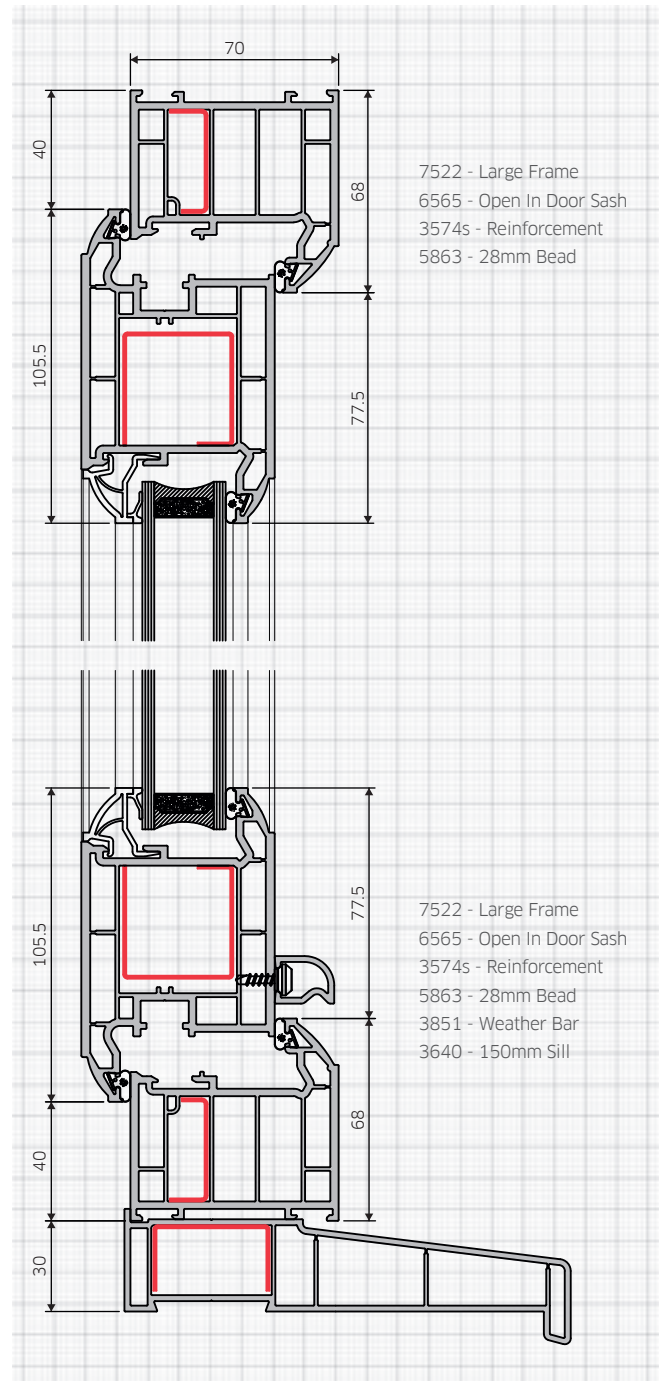
- < A number of simulations have been carried out by 'approved' simulators at Duraflex providing a range of DER's for Doors following the introduction of doors to the Energy scheme in December 2011
- < 'U' value simulations have been carried out to ensure the latest Building Regulations requiring a minimum 'U' value of 1.8 W/m²K (1.6 W/m²K in Scotland) are met. Further detailed simulations are being carried out and added to our already comprehensive portfolio.

Acoustic

Acoustic testing has been carried out at Exova using standard sealed units and those comprising laminated glass, a maximum reduction of 37dB Rw was achieved.

General Features

- < **Q-Lon** - 99% compression recovery, high performance acoustic and weather sealing properties with lifetime guarantee. Operates perfectly in temperatures ranging from -20°C to 70°C
- < **Lead Free** - environmentally friendly, calcium organic lead free formulation
- < **Finishes** - comprehensive range of natural wood and solid colour foils
- < **Structural** - comprehensive range of coupling sections to suit various applications
- < **Featured and Bevelled**



Composite Door Frame



Features

Frame Offering

- ◀ Dedicated composite door outer frame height of 68mm with matching sidelight frame and 38mm PVCu low threshold frame
- ◀ 88mm mullion for integrated side and top light options
- ◀ Choice of 3 sidelight transom/midrail widths of 72mm, 86mm and 116mm
- ◀ Aluminium disability low threshold with centre flipper seal
- ◀ All sections available fully featured.

Weatherseals

- ◀ Outer frames incorporate a triple sealing system which includes the Q-Lon flipper gasket for improved compression and weathering
- ◀ Aluminium low threshold incorporating double sealing system.

Reinforcement

- ◀ Dedicated galvanised steel and aluminium reinforcements.

Finishes

- ◀ Available in both standard white and brilliant white
- ◀ Framing predominantly white, for use with solid coloured slabs. Available in woodgrain finishes to match woodgrain effect door slabs.

Glazing

- ◀ Fixed lights can be glazed with 24mm, 28mm and 36mm unit widths, dedicated beads for glazing 44mm slabs
- ◀ Side panel glazing up to 44mm.

Ancillaries

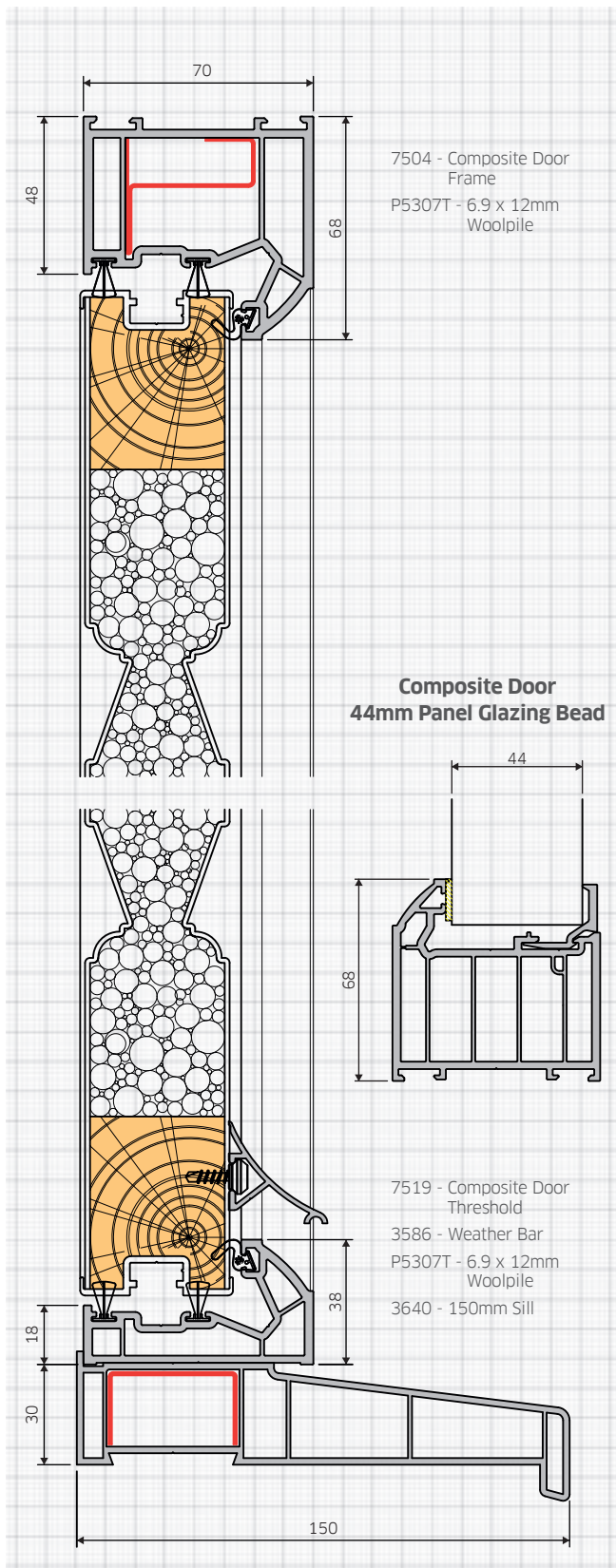
- ◀ A comprehensive range of ancillaries, including add-ons, corner posts and couplers.

Hardware

- ◀ Designed to accept multi-point locks and various hinge types to achieve desired security levels
- ◀ Handles, hinges and letterplates available in white, black, gold and chrome
- ◀ Secured by Design and Part Q specification available.

Ventilation

- ◀ Proprietary ventilation devices can be used on all designs
- ◀ A range of head details available including head extensions and one piece head vent with facility of recessed outer grill.



Performance

Security

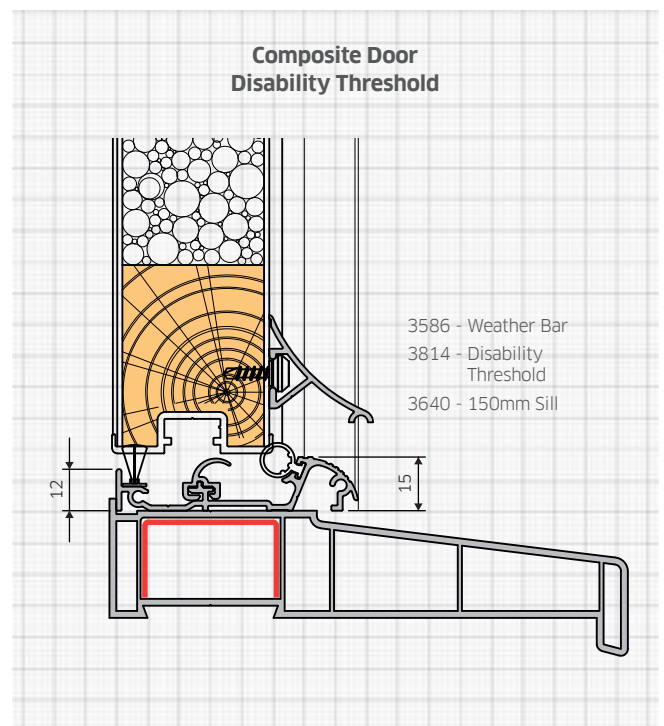
- Multi-point high security locks available with hook and deadbolt locking to achieve Secured by Design status.

Thermal

- A number of simulations have been carried out by 'approved' simulators at Duraflex providing a range of DER's for Doors following the introduction of doors to the Energy scheme in December 2011
- 'U' value simulations of 0.9 W/m²K have been achieved to ensure Building Regulations are met. Further detailed simulations are being carried out and added to our already comprehensive portfolio.

General Features

- Q-Lon** - 99% compression recovery, high performance acoustic and weather sealing properties with lifetime guarantee. Operates perfectly in temperatures ranging from -20°C to 70°C
- Lead Free** - environmentally friendly, calcium organic lead free formulation
- Finishes** - comprehensive range of natural wood and solid colour foils
- Structural** - comprehensive range of coupling sections to suit various applications
- Mechanical Corner Joint** - for Aluminium threshold.



Patio Door



Features

Frame Offering

- ◀ Dedicated outerframe height of 46mm
- ◀ Sash heights of 95mm
- ◀ Aluminium low threshold sill height of 27 mm
- ◀ Dedicated midrail accepts letterboxes
- ◀ All sections available featured and bevelled.

Weatherseals

- ◀ Range of fin-woolpile seal and Q-Lon gasket to all glazing beads.

Reinforcing

- ◀ Range of aluminium and galvanised steel reinforcements.

Finishes

- ◀ Signature white
- ◀ Range of solid colour and woodgrain foils.

Glazing

- ◀ 28mm double glazed units
- ◀ Georgian bars in 20mm and 28mm widths.

Ancillaries

- ◀ Comprehensive range of add-ons, couplers, corner posts, bay poles available to suit any installation.

Hardware

- ◀ Full depth eurogroove in sash.

Ventilation

- ◀ Proprietary ventilation devices can be used on all designs
- ◀ A range of head details available including large outer frame, head extension and dedicated one piece head vent (see cavity closer for further details).

Tested to BS 6375-1:2015

Air Permeability	Water Tightness	Wind Resistance
300Pa	200Pa	1200Pa



Performance

Security

- < Tested to achieve PAS 24:16 and Secured by Design
- < 8 point locking system with full length one piece long.

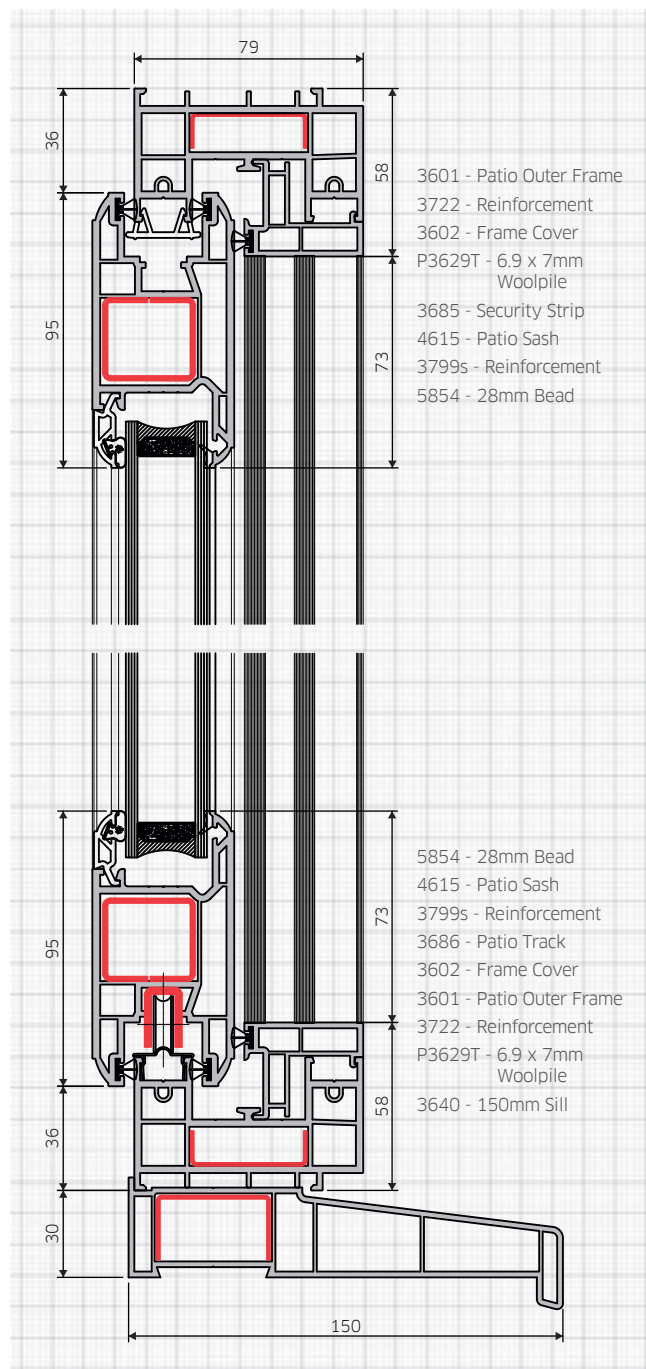


Thermal

- < A number of simulations have been carried out by 'approved' simulators at Duraflex providing a range of DER's for Doors following the introduction of doors to the Energy scheme in December 2011
- < 'U' value simulations have been carried out to ensure the latest Building Regulations are met. Further detailed simulations are being carried out and added to our already comprehensive portfolio.

General Features

- < **Lead Free** - environmentally friendly, calcium organic lead free formulation
- < **Finishes** - comprehensive range of natural wood and solid colour foils
- < **Structural** - comprehensive range of coupling sections to suit various applications
- < **Featured and Bevelled.**



70mm French Door



Features

Frame Offering

- < 68mm standard outer frame with an 85mm option
- < A choice of 36mm, 46mm, 58mm and 68mm low PVCu threshold
- < Choice of 3 transom widths - 63mm, 72mm and 86mm
- < Choice of open in and open out sashes
- < Available fully featured or bevelled
- < Available fully welded or mechanically jointed transoms/midrails
- < Choice of 2 aluminium low thresholds, disability at 15mm high and refurb with access ramps at 24mm high
- < Dedicated one piece double door adaptor.

Weatherseals

- < High performance Q-Lon gasket supplied in all mainframe sections with a manufacturer lifetime guarantee.

Reinforcing

- < Galvanised steel range to suit requirements
- < Galvanised steel lock prep steel
- < Aluminium range for mechanical joints
- < All reinforcements are designed to achieve required security and wind loading requirements.

Glazing

- < Choice of 4 glazing thicknesses - 24mm or 28mm for double glazed units, 36mm or 44mm for triple glazed
- < Astragal, Georgian bars in 20mm and 28mm widths.

Ancillaries

- < Comprehensive range of add-ons, couplers, corner posts, bay poles available to suit any installation.

Hardware

- < Fully depth eurogroove, accept comprehensive range of multi-point locks
- < Compatible with a range of knuckle, rebate and flag hinges, including slave locking shootbolts and fingerbolts
- < Secured by Design and Part Q specification available.

Ventilation

- < Proprietary ventilation devices can be used on all designs
- < A range of head details available including large outer frame, head extension and dedicated one piece head vent (see cavity closer for further details).

Tested to BS 6375-1:2015

Air Permeability	Water Tightness	Wind Resistance
Class 2 300Pa	Class 8A 450Pa	Class A3 1200Pa

Performance

Security

- ◀ Choice of multi-point high security locks along with pencil, rebate and flag hinge options
- ◀ Slave door lock options to include shootbolts activated by central handle or top and bottom finger bolts
- ◀ Available to achieve Secured by Design status.

Thermal

- ◀ A number of simulations have been carried out by 'approved' simulators at Duraflex providing a range of DER's for Doors following the introduction of doors to the Energy scheme in December 2011
- ◀ 'U' value simulations have been carried out to ensure the revised Building Regulations of October 1st 2010 requiring a minimum 'U' value of 1.8 W/m²K (1.6 W/m²K in Scotland). Further detailed simulations are being carried out and added to our already comprehensive portfolio.

Acoustic

Acoustic testing has been carried out at Exova using standard sealed units and those comprising laminated glass, a maximum reduction of 37dB Rw was achieved.

General Features

- ◀ **Q-Lon** - 99% compression recovery, high performance acoustic and weather sealing properties with lifetime guarantee. Operates perfectly in temperatures ranging from -20°C to 70°C
- ◀ **Lead Free** - environmentally friendly, calcium organic lead free formulation
- ◀ **Finishes** - comprehensive range of natural wood and solid colour foils
- ◀ **Structural** - comprehensive range of coupling sections to suit various applications
- ◀ **Featured and Bevelled**
- ◀ **Mechanical Corner Joint** - for Aluminium threshold.

