



Product Specification making the difference

Windows and Doors Specification Guide



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ABOUT US

Duraflex is one of the largest extruders of PVC-u profile for the Window Industry in the UK. We supply Householders, Builders, Developers, Local Authorities and Housing Associations through a nationwide network of window fabricators and installers.

Backed by over twenty years of PVC-u extrusion experience in the window and door sector, Duraflex create the ideal environment for innovative product design, quality production, reliable logistics and all the necessary customer support services.

PURPOSE BUILT FACILITY

Completed in 2004, we operate from a 275,000 sq/ft state of the art, purpose built facility in Tewkesbury that consists of the office, factory and warehouse.

Duraflex are now the largest single site extruder of hollow PVC-u profile in the UK.

BRITISH AND EUROPEAN STANDARDS

All products conform to British and European standards surrounding manufacture and performance. The 'Secured By Design' accreditation for products and hardware is a unique achievement which fully justifies our policy of continuous quality control and development.

INDUSTRY LEADING PRODUCTS AND SERVICES

Staffed by people 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.

COMPANY HISTORY

- 1953** - Duraflex formed selling Aluminium products
- 1970** - Acquired by RTZ and moved into the doors and windows sector
- 1980** - Bought PVC-u fabrication plant from Glostal
- 1990** - Developed own PVC-u extrusion operation
- 1995** - Acquired by Caradon Group and CDW Ltd formed
- 1997** - Launched the Diamond Suite
- 1999** - Acquired by Latium Group and formed new Duraflex team
- 2000** - Launched new patio and integrated 70mm and Featured System
- 2002** - Duraflex becomes a Limited company and is bought by the MASCO Corporation
- 2004** - Move of Factory, Warehouse and Office to one state-of-the-art, purpose built facility in Tewkesbury
- 2007** - Achieved ISO 14001 Environmental accreditation and won the regions Environmental 'Business of the Year' award.



Duraflex Site in Tewkesbury

Duraflex is part of the Masco Corporation, one of the world's largest manufacturers of brand-name products for the home improvement and new home construction markets. www.ukwg.co.uk

For further information on any of our products or services please us call on **08705 351351** or email us at info@duraflex.co.uk.

WHY SPECIFY DURAFLEX?

Duraflex offers a wide range of doors and windows designed to meet the exacting demands of the commercial industry. With over 55 years experience in the windows market, we have the skills and expertise to ensure that whatever your project, we can provide the PVC-u solutions to meet your needs.

This guide has been designed to give you information on the Duraflex system in order to help you match the product to your exact needs.



Backed by over 20 years of PVC-u extrusion experience in the window and door sector, Duraflex create the ideal environment for innovative product design, quality production, reliable logistics and all the necessary customer support services.



HOW DO WE DO IT?

Correct specification for any window or door is paramount to ensuring you get what you want; dealing with Duraflex through one of its many fabricators throughout the UK is a good starting point. It is necessary to be clear on your requirements, deal with facts, be precise on what you wish to achieve, if you are unclear on any of these issues Duraflex can help provide the details needed for an 'informed decision'.

RAW MATERIALS

Duraflex source all of its raw materials from reputable world wide suppliers who have served the industry for many years. The 'window grade' formulations based on Calcium Organic stabilizers ensure the addition of no 'heavy metals' and have been proved within the market place over many years through natural and artificial weathering.

Produced internally at Duraflex, the blend of PVC and all associated additives are tightly controlled with 'state of the art' blending equipment to ensure consistency and the highest quality levels.

Waste reduction and environmental considerations are very important to Duraflex, fabricator off-cuts and own generated extrusion waste is recycled in a number of 'non-critical' applications.

PROFILE

The Duraflex Diamond suite is ideal if you are looking for reduced stock holding and a range of sections compatible with each other. Produced in both the traditional bevelled (putty line) frame and bead system or the traditionally defined featured system, profile is available to suit all market needs with the featured system boasting clear 'sharp' lines giving a well defined shape to both white and coloured sections. It is available in a range of outerframe depths (slim, intermediate and large) to suit all construction methods.

COLOUR

Whilst the majority of windows produced are white in colour there have, over the past few years, been an increasing requirement for coloured finishes including woodgrain effect. A wide range of alternative coloured laminate finishes are available, these are applied to either a white or brown substrate using water based primer/adhesive system compliant with the latest European legislation, all of which have been assessed and obtained BBA certification.

Q-LON WEATHERSEALS

Duraflex supply all their mainframe sections with pre-inserted Q-Lon weatherseal. Q-Lon is a sheathed composite gasket which is widely used in Scandanavian countries due to its high performance across a wide temperature range. It has excellent acoustic, thermal and recovery properties which is backed by a lifetime guarantee.

HOW DO WE DO IT?

THERMAL PERFORMANCE

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 attain the highest Window Energy rating (WER) available currently for replacement windows, achieve 'New Build' 'U' value desires and where appropriate can exceed door 'U' value requirements.

ACOUSTIC PERFORMANCE

Use of the Q-Lon seal ensures a high acoustic rating can be achieved although the overall performance level available is very dependant on the glass specification. Testing at Salford University with the casement windows confirms an acoustic reduction of 39db using laminated glass to one pane (full specification and details available on request).

SECURITY

Widows and doors have been tested to the stringent requirements of BS7950 for windows and PAS24 for doors enabling, with the appropriate locking mechanisms, a high level of security to be achieved, meeting the requirements of SBD (Secured by Design).

HARDWARE

A range of hardware is available for use on the Duraflex Diamond suite which has been assessed as appropriate. All product for use in a security situation has been physically tested to the relevant standards and all products assessed for corrosion resistance and endurance.

TRAINING

All personnel within operations (Extrusions, Lamination, Blending and Warehousing) undergo NVQ level 2 as part of their overall training.

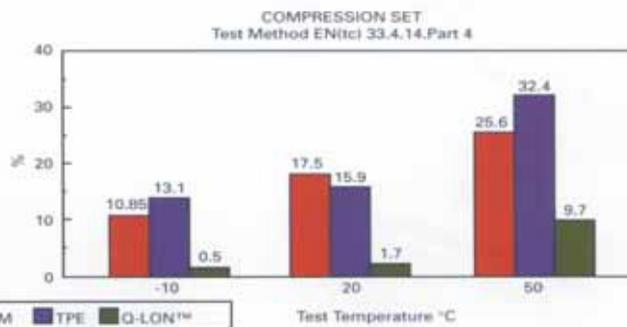
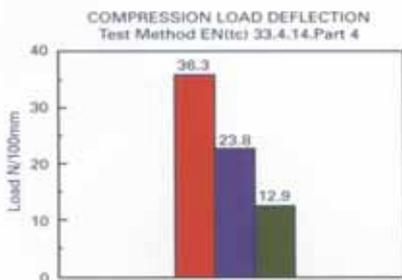
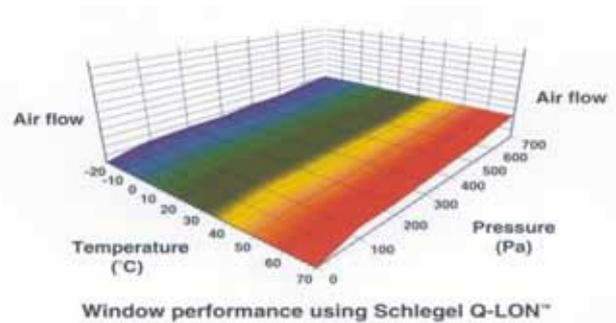
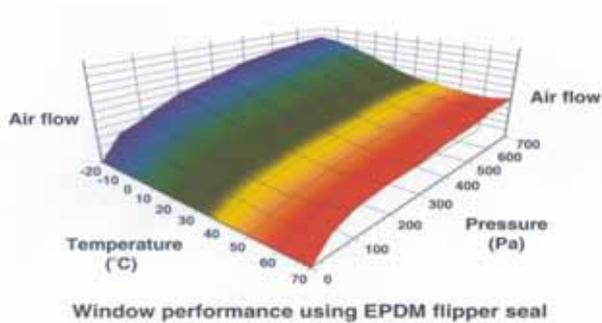
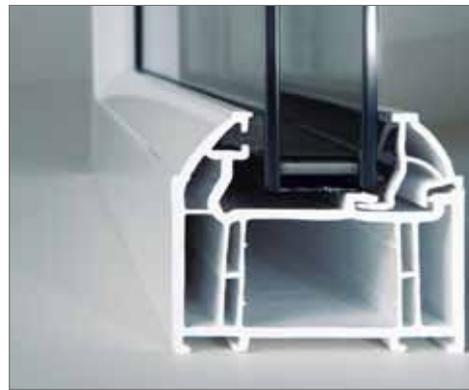
All existing company personnel have been trained and all new inductees are trained in our ISO 9001 and ISO 14001 operating requirements, this ensures a high level of knowledge throughout all functions resulting in a 'right first time' and 'continuous improvement' culture.

There are gaskets. Then there's Q-Lon – it has excellent compression recovery of 99%, giving constant height at corners for improved weathering. Furthermore, it provides low operating forces on gearing which in turn ensures ease of operation for the user.

Weatherseal performance matters in windows, that's why the Diamond Suite is supplied with Q-Lon pre-inserted into all sections.

TRUST THE WORLD'S BEST WEATHERSEAL GASKET

- Best acoustic and thermal performance across the widest temperature range
- 99% memory recovery. Retains shape year after year
- Low operating forces reduce wear and tear and gives ease of operation
- Leaves no rigid sprue after welding
- Lifetime guarantee.



ENVIRONMENT & RECYCLING

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.

CALCIUM ORGANIC

Two of the initiatives of Vinyl 2010 were the total elimination of Cadmium from PVC-u formulations and phasing out the use of lead based stabilisers. This latter requirement was to take place before 2015 with staged reductions being achieved by 2005 and 2010.

Extensive trials have been carried out over the past few years resulting in Duraflex making the switch to the alternative during 2008, well ahead of the scheduled deadline and with no impact on its current Kitemark and accreditation status.

ECO FRIENDLY LAMINATION

Duraflex laminates all its woodgrain or colour finish profiles in-house. Changes in European Legislation required previously used solvent based primer to be removed. During the latter part of 2006 and into 2007 Duraflex carried out a number of trials to ensure compliance with the new regulations and a smooth uninterrupted transition to a new eco-friendly primer system.

Approximately £¼ million investment on new machines was required to facilitate this change which resulted in Duraflex changing to the new system in October 2007.

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 majority of scrap produced is recycled in-house with very little (less than 1%) non-recoverable scrap being sent off-site for recycling in other non critical applications (pipes, conduit, furniture etc).

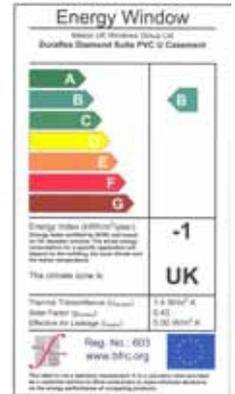
Furthermore, Duraflex attend ISO 14001, Environmental Management System, and follows these guides with year on year continuous improvements to reduce our impact on the environment.



ENERGY RATINGS & U VALUES

WER

Window Energy Rating - The future of energy efficient windows from the BFRC.



BFRC - WHAT'S IT ALL ABOUT?

The Government has set itself a specific target of ensuring all new homes built after 2016 are zero carbon and owners of existing properties are encouraged and supported in improving the energy efficiency of their dwellings. This is in addition to the general requirement of an overall carbon emission reduction as set out by the Kyoto agreement.

To highlight this topic and enable a system which is both an independent source of information and also easy to understand, the BFRC (British Fenestration Rating Council) together with CERTASS and BSI have introduced a performance label (WER - Window Energy Rating) clearly defining the energy efficiency of windows from any manufacturer. Windows are scored on a scale of A – G, with an 'A' rated product being more energy efficient than one which is G rated. This allows individuals to quickly and easily choose the windows most suitable for their needs. Changes to the Building Regulations in October 2010 require any replacement domestic window to achieve a minimum rating of 'C'.

ENERGY EFFICIENCY

In an ideal world, 'A' rated windows would be installed in each home in the UK. However, recognising that a balance needs to be made between the availability and cost-effectiveness of such products, those which are given a rating of 'C' and higher are recognized as energy efficient, Those achieving a rating of 'B' or above can officially be endorsed with the Energy Saving Trust 'Recommended' logo, subject to the EST scheme membership.

The use of the performance label and rating system is similar to that as used currently on other domestic items such as fridges, freezers, ovens etc. and has been extended to other generally used products such as cars etc. It is being considered on products where energy efficiency can be monitored and measured.

U VALUE

Whilst the WER measurement is seen as the more comprehensive method to define energy efficiency of windows, taking into account not only the whole window U value but also the positive solar gain and window air leakage, the changes to the Building Regulations which came into affect on 1st October 2010 did allow the U Value only to be used as the means of demonstrating compliance with the new regulations. The 'U' value is a measure of the effectiveness of the window to retain heat within the building; it does not take into effect solar gain (g value). This is considered an important benefit to the householder and is sometimes referred to as 'free' energy; it allows heat from the suns rays to warm the building interior even on 'cloudy' days, the degree of effectiveness being dependant on the glass specification. The new Building Regulations (AD L1B) require a domestic replacement window to achieve EITHER a WER of 'C' as indicated above OR a window 'U' value of 1.6 W/m²K.



PRODUCT STANDARDS

QUALITY ASSURANCE

Duraflex is committed to providing our customers with the best quality windows and doors. To achieve this goal we have devoted time, effort and expense into obtaining all relevant Standards and Accreditations the industry has to offer.

Duraflex holds Certificate No. FM 10093 and operates a quality managed system which complies with the requirements of BS EN ISO 9001 and EMS 514848 for ISO 14001 for the following activities:

- The supply of plastic window components and the production of PVC-u profile extrusions.
- The design, development, manufacture and supply of various building products and systems.
- The processing of PVC-u power for use in extrusion process.
- Sales and marketing of various building products and systems.
- Quality systems and administrative functions.
- Warehouse and distribution activities.

Duraflex Diamond Suite holds BSEN 12608 and BS 7950/BSEN 12608. KM 12894 and KM 33502.

ACCREDITATIONS

| | | | |
|---|--|--|---|
|  | Assessment report Numbers 1576 and 2662. The Duraflex Diamond Suite 65mm & 70mm Tilt & Turn, Casement Windows and Residential Doors. |  BSEN12608:2003 KM12894 | Specification for white PVC-U extruded hollow profiles with heat welded corner joints for plastic windows. Duraflex 65mm Diamond Suite Window system. |
|  | Certificate No 04/4902 Duraframe Cavity Closer. |  BSEN12608:2003 KM12894 | Specification for white PVC-U extruded hollow profiles with heat welded corner joints for plastic windows. Duraflex 70mm Diamond Suite window system. |
|  | Windows simulated and achieve a range of window energy ratings (wers) from A to E. Duraflex Diamond system also achieves "U" values from the current building regulations ranging from 2.0 W/m²k to a value of 1.3W/m²k. |  BS 7950 KM33502 | Specification for enhanced security performance of windows for domestic applications. Duraflex 65mm casement and tilt & turn. |
|  | BSI Registered. Quality Management System. BSENISO 14001:2004. |  PAS23 KM79769 | Specification for enhanced security performance of windows for domestic applications. Duraflex 70mm casement and tilt & turn. |
|  | BSI Registered. Environmental Management System. BSENISO 9001:2008. |  PAS24 KM79769 | Specification for performance of domestic residential doorsets. |
|  | Secured By Design - Police Initiative |  PAS24 KM79769 | Specification for enhanced security performance of domestic residential doorsets. |
| | |  | BPF Windows Group provide codes of practice, guidelines & recommendations for windows, doors & conservatories. |

TECHNICAL SUPPORT

At Duraflex, we understand that technical support is imperative. Our experienced team provide a 'one stop' service for resolving all technical product and specification queries.

IN-HOUSE TECHNICAL ASSIST TEAM

At Duraflex our experienced in-house support team provides a 'one stop' service for resolving your technical enquiries – from industry regulations and accreditation changes to product information.

TECHNICAL ASSIST PROVIDES:

- Technical Assist electronic support/HelpLine Mail
- Helpline – Direct phone line to our experienced Technical Support Team
- Manufacturing and Survey advice
- Assist with factory layouts and planning
- Wind loading calculations and advice
- Accreditation, Regulations and Standards advice
- Bespoke customer Profile Wall Charts
- Product and Training manuals
- Thermal Calculations – fully approved simulator status
- New product design and support
- New product launches – distribution of product data regarding new products
- Hardware compatibility advice
- Environment support

EXTERNAL TECHNICAL TEAM

A dedicated team of mobile service engineers covering the UK and Ireland bring their expertise to suit your needs by providing personal on-site support to assist your company.

- Product fabrication training
- Factory layout advice
- New product training
- Machinery advice
- Customer changeover support
- Development calls

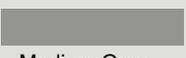
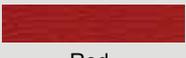
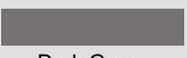
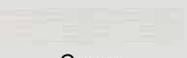
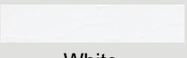


FINISHES

Foils allow you to further bespoke the look of a building and create individuality. Furthermore, all our foils are supplied on 100% calcium organic material and applied using our eco friendly process.

All foils are available in these options: Foil on the outside and white on the inside, foil both internally and externally and also white outside with foil inside, the choice is yours.

All Duraflex foils are available on brilliant or warm white profiles and bevelled or featured options.

| | | | | | |
|--------------------|---|---|---|---|---|
| PROFILE COLOUR |  Brilliant White |  Warm White | | | |
| STANDARD WOODGRAIN |  Rosewood |  Golden Oak | | | |
| PRESTIGE WOODGRAIN |  Irish Oak |  Antique Teak |  Rustic Cherry |  Soft Cherry | |
| SOLID COLOURS |  Grey  Blue |  Medium Grey  Red |  Dark Grey  Green |  Cream  White |  Black |

All foiled using Eco Friendly lamination, without the use of hazardous solvents.

Woodgrain on white achieves the look of traditional hardwood frames on the outside and brilliant white frames on the inside.

Other colours available on request and subject to extended lead times.

FEATURES KEY

To help you source all the information you require, we have put together this simple key which shows the features and benefits of each product.

They are attributed to each specific product page to simplify their key features.



Q-Lon - 99% compression recovery, high performance acoustic and weathersealing properties with lifetime guarantee



Lead Free - environmentally friendly, calcium organic lead free formulation (ph)



Finishes - comprehensive range of natural wood and solid colour foils.



BFRC - Registered window energy rating scheme (inc. U values)



Secured By Design - Highest level of security performance registration.



Structural - comprehensive range of coupling sections to suit various applications.



ISO:14001 - Environmental Management System



ISO:9001 - Business Management System



BBA - Product test accreditation to European and British standards.



BSI - Product test accreditation to European and British standards.



BM Trada - Product compliant to performance specification, covering all products to British and European standard.

PRODUCT RANGE - CASEMENT WINDOW

FEATURES

FRAME OFFERING

- Choice of 3 outer frame heights, 46mm, 58mm and 68mm.
- Choice of 3 transom heights - 63mm, 72mm and 86mm.
- Dedicated sash.
- All sections available fully featured and bevelled.
- Available fully welded or mechanically jointed transoms.

WEATHERSEALS

- High performance Q-Lon gasket supplied in all mainframe sections.

REINFORCING

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

FINISHES

- Warm white and brilliant white, on non lead PVC-u.
- Range of solid colour and woodgrain foils.

TEST RESULTS

| Frame Type | Size | Air Permeability | Water Tightness | Wind Resistance | Standard | Accreditation Body |
|--|-------------|------------------|-----------------|-----------------|---------------|--------------------|
| Projecting top hung | 1200 x 1200 | 450Pa | 300Pa | 2400Pa | BS6375-1:2004 | BSI |
| Projecting side hung | 800 x 1500 | 600Pa | 300Pa | 2400Pa | BS6375-1:2004 | BBA |
| Projecting side hung Externally Glazed | 700 x 1350 | 300Pa | Class E1050 | 2000Pa | BS6372-1:2004 | BSI |
| Fixed Window | 2000 x 2000 | 600Pa | 300Pa | 2000Pa | BS6375-1:2004 | BSI |
| Mock Horn | 900 x 1800 | 300Pa | Class E1050 | 2400Pa | BS6375-1:2004 | BSI |
| Multilight (th/sh-f) | 2400 x 1200 | 450Pa | Class E600 | 1200Pa | BS6375-1:2004 | BSI |

GLAZING

- Choice of 3 glazing thicknesses - 24mm, 28mm double glazed units and 36mm triple glazed.
- Astrical, Georgian bars in 20mm and 28mm widths.

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.

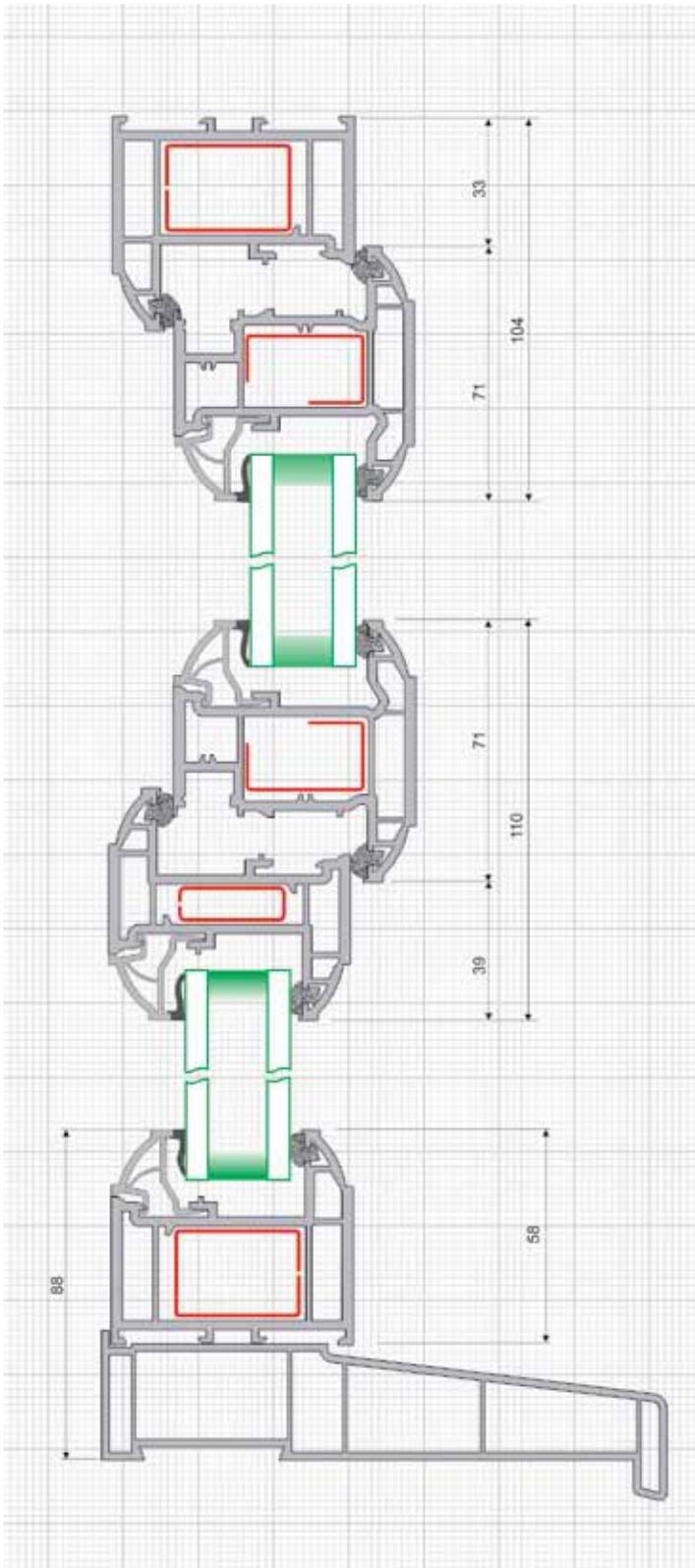
VENTILATION

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

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.



Scale 1:2

GENERAL FEATURES



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, doors in a similar situation are required to meet a minimum 'U' value of 1.8 W/m²K (1.6 W/m²K 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, 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 Salford University using standard sealed units and those comprising laminated glass, a maximum reduction of 39db was achieved. In addition testing has been carried out on windows fitted with ventilators in both open and shut situations.

PRODUCT RANGE - TILT & TURN WINDOW



FEATURES

FRAME OFFERING

- Dedicated outerframe - 68mm height.
- Choice of 3 transom heights - 63mm, 72mm and 86mm.
- Dedicated sash.
- All sections available featured and bevelled.
- Available fully welded or mechanically jointed.

WEATHERSEALS

- High performance Q-Lon gasket supplied in all mainframe sections.

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.

TEST RESULTS

| Frame Type | Size | Air Permeability | Water Tightness | Wind Resistance | Standard | Accreditation Body |
|-------------|-------------|------------------|-----------------|-----------------|---------------|--------------------|
| Tilt & Turn | 1200 x 1200 | 600Pa | 450Pa | 2400Pa | BS6375-1:2004 | BSI |

FINISHES

- Warm white and brilliant white, on non lead PVC-u.
- Range of solid colour and woodgrain foils.

GLAZING

- Choice of 3 glazing thicknesses - 24mm, 28mm double glazed units and 36mm triple glazed.
- Astrical, Georgian bars in 20mm and 28mm widths.

ANCILLARIES

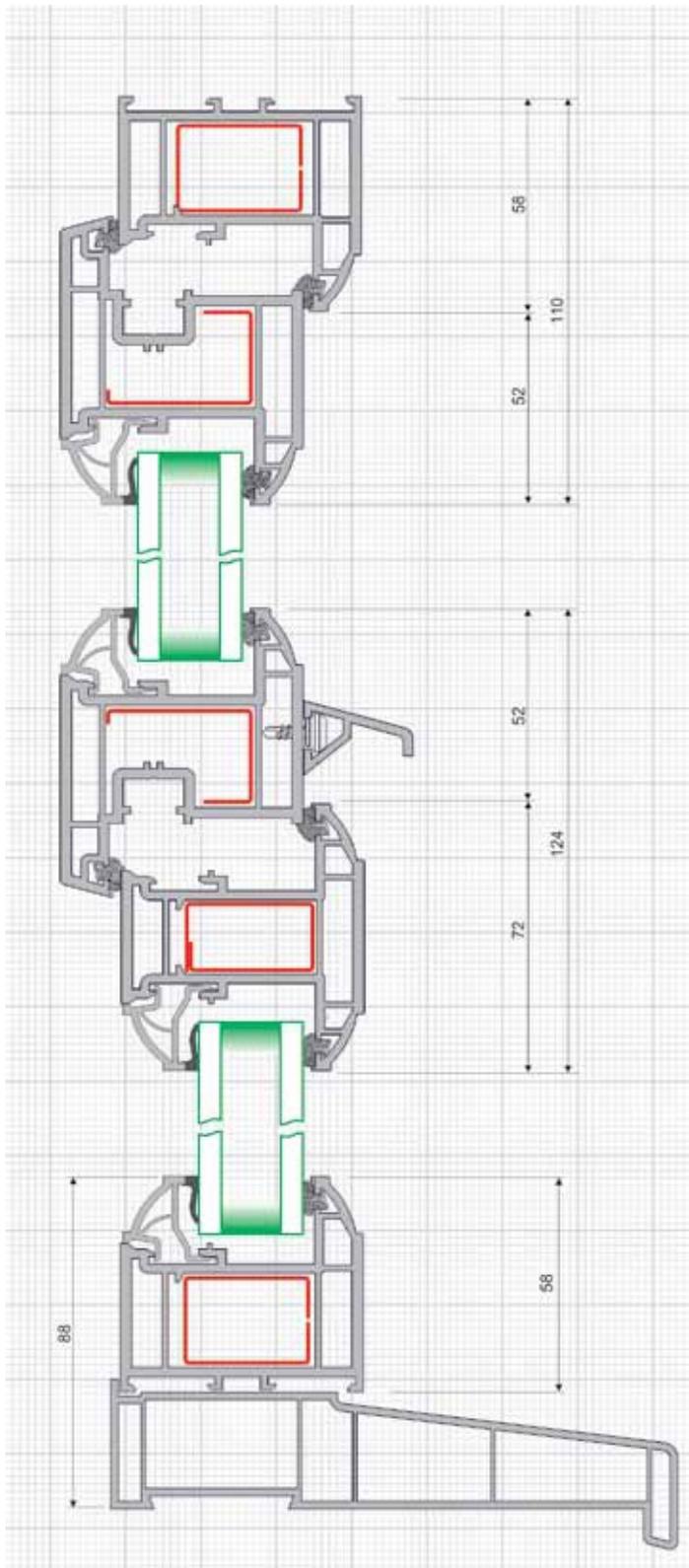
- Comprehensive range of add-ons, couplers, corner posts, bay poles available to suit any installation.
- Plant on mock horn available to produce traditional aesthetics with tilt and turn opening features.

HARDWARE

- Full depth eurogroove positioned centrally, accepts a wide range of perimeter locking and concealed hardware.

VENTILATION

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



Scale 1:2

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, B and C ratings and 'U' values to 1.4W/m²k using standard readily available components.



GENERAL FEATURES



PRODUCT RANGE - RESIDENTIAL DOOR

FEATURES

FRAME OFFERING

- Dedicated 68mm outerframe with options of 46mm for low PVC-u threshold.
- Choice of 3 transom heights - 63mm, 72mm and 86mm.
- Choice of open in and open out sashes.
- Available fully featured or bevelled.
- Available fully welded or mechanically jointed transoms.
- 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.

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 3 glazing thicknesses - 24mm, 28mm double glazed units and 36mm triple glazed.

TEST RESULTS

| Frame Type | Size | Air Permeability | Water Tightness | Wind Resistance | Standard | Accreditation Body |
|--|-------------|------------------|-----------------|-----------------|---------------------|--------------------|
| single door, open in, int glazed, glass/glass | 1050 x 2150 | 300Pa | 200Pa | 1200Pa | BS6375-1:2004 PAS23 | BSI |
| single door, open in, int glazed, glass/panel | 1050 x 2150 | 300Pa | 200Pa | 1600Pa | BS6375-1:2004 | BSI |
| single door, open out int glazed glass/glass | 950 x 2100 | 600Pa | 200Pa | | PAS23 | BSI |
| single, open in, int glazed, coupled sidelight, glass/glass | 1500 x 2150 | 450Pa | 300Pa | 1600Pa | BS6375-1:2004 | BSI |
| single, open out, int glazed, coupled sidelight, glass/panel | 1500 x 2150 | 300Pa | 300Pa | 1600Pa | BS6375-1:2004 | BSI |

- Astrical, 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.
- Range of knuckle, rebate and flag hinges available.

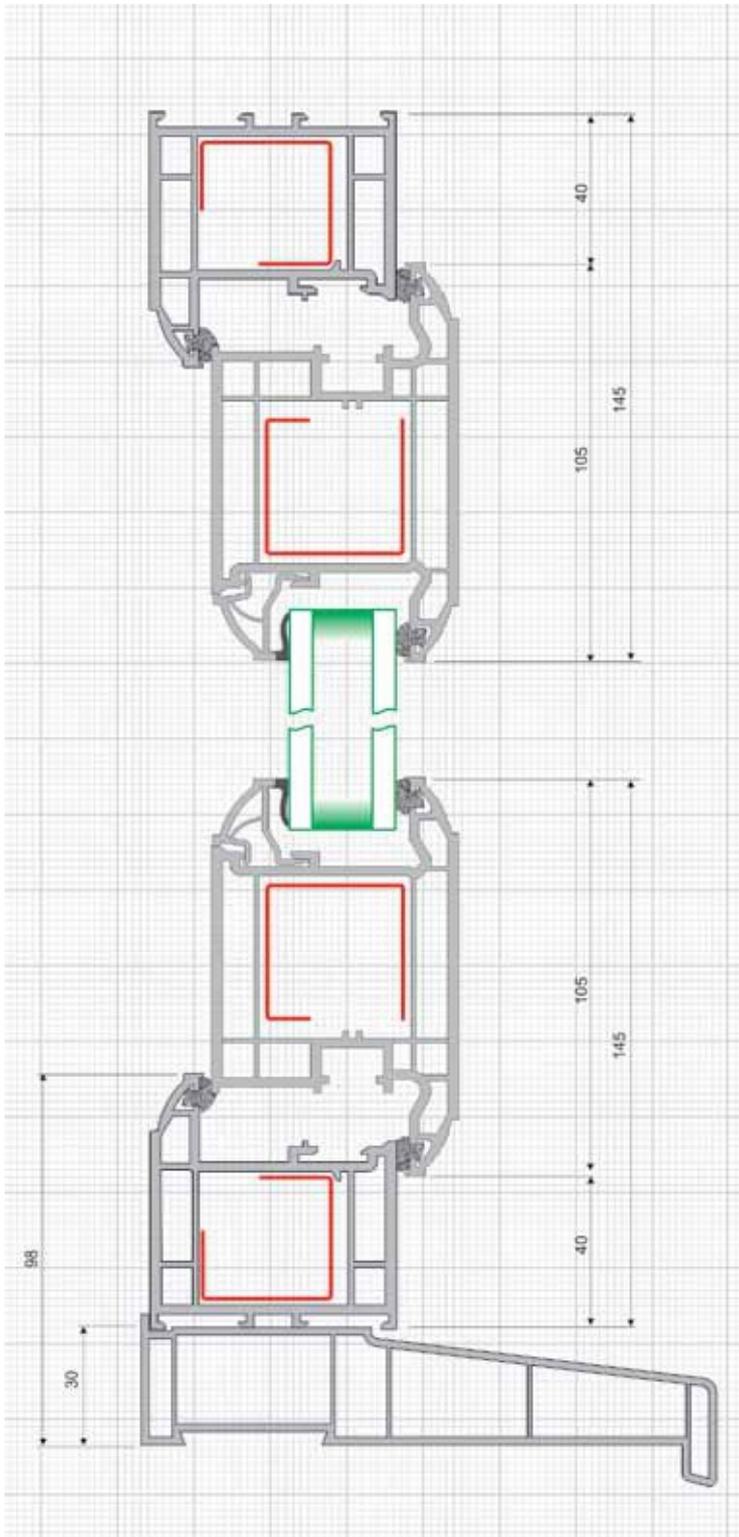
VENTILATION

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

PERFORMANCE

SECURITY

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



Scale 1:2

THERMAL/ACOUSTIC

- No Energy Rating system exists currently for doors (May 2011) although a scheme is expected to be introduced during summer 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) are met. Further detailed simulations are being carried out and added to our already comprehensive portfolio.



GENERAL FEATURES



PRODUCT RANGE - FRENCH DOOR



- 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.

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 3 glazing thicknesses - 24mm, 28mm double glazed units and 36mm triple glazed.
- Astrical, Georgian bars in 20mm and 28mm widths.

FEATURES

FRAME OFFERING

- Dedicated 68mm outerframe with options of 46mm for low PVC threshold.
- Choice of 3 transom heights - 63mm, 72mm and 86mm.
- Choice of open in and open out sashes.
- Available fully featured or bevelled.
- Available fully welded or mechanically jointed transoms.

ANCILLARIES

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

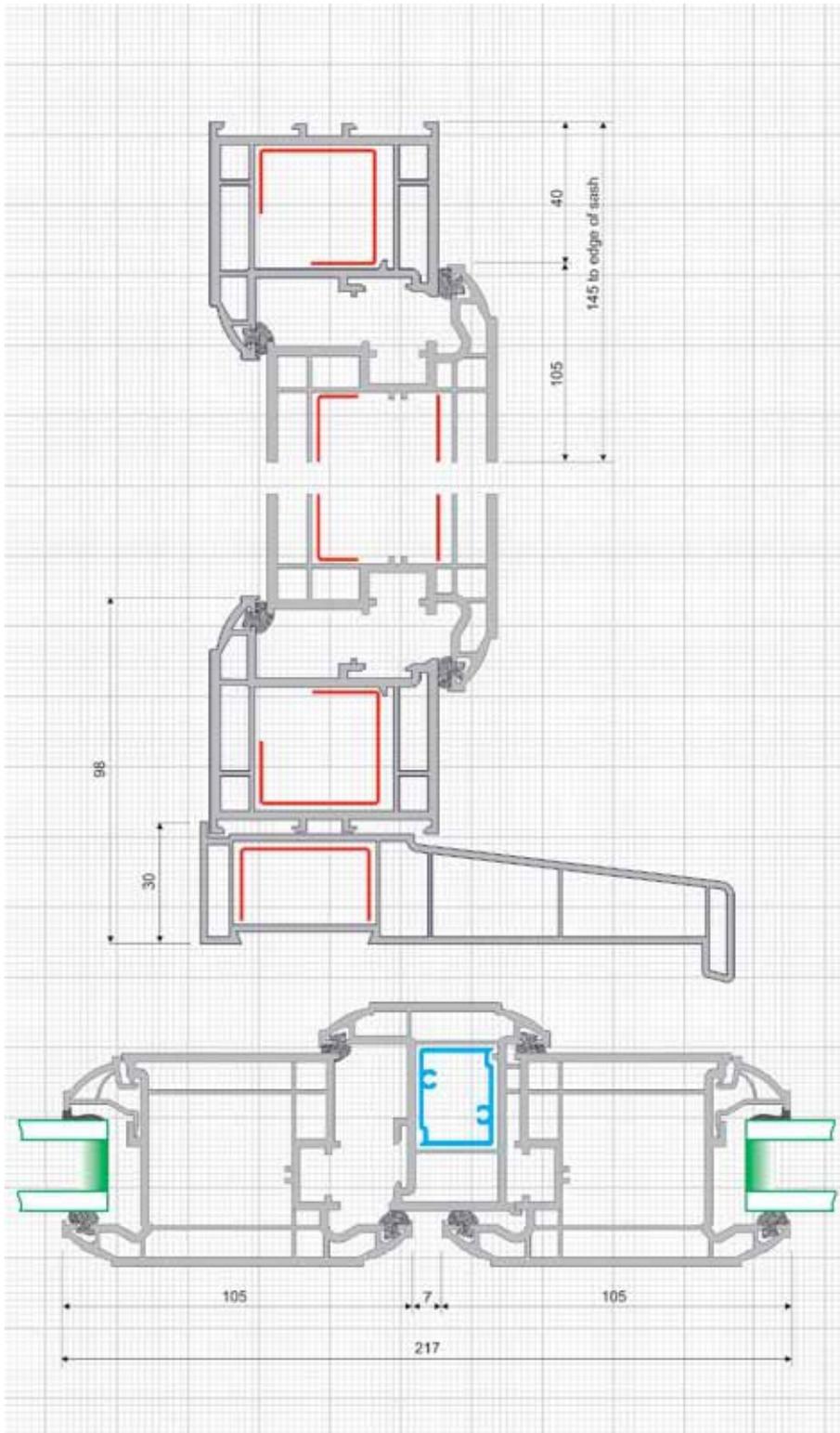
HARDWARE

- Fully depth eurogroove, accept comprehensive range of multi-point locks.
- Range of knuckle, rebate and flag hinges available including slave locking shootbolts and fingerbolts.

TEST RESULTS

Size

| Frame Type | | Air Permeability | Water Tightness | Wind Resistance | Standard | Accreditation Body |
|---|-------------|------------------|-----------------|-----------------|---------------|--------------------|
| double door, open in, int glazed, glass/glass | 1800 x 2150 | 300Pa | 450Pa | 1200Pa | BS6375-1:2004 | BSI |
| double door, open out, int glazed, fully glazed | 1800 x 2150 | 450Pa | 300Pa | 1200Pa | BS6375-1:2004 | BSI |



Scale 1:2

VENTILATION

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

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/ACOUSTIC

- No Energy Rating system exists currently for doors (April 2011) although a scheme is expected to be introduced during summer 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). are met. are met. Further detailed simulations are being carried out and added to our already comprehensive portfolio.

GENERAL FEATURES



PRODUCT RANGE - PATIO DOOR



REINFORCING

- Range of aluminium and galvanised steel reinforcements.

FINISHES

- Warm white and brilliant white, on non lead PVC-u.
- Range of solid colour and woodgrain foils.

GLAZING

- 28mm double glazed units.
- Astrical, 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.

FEATURES

FRAME OFFERING

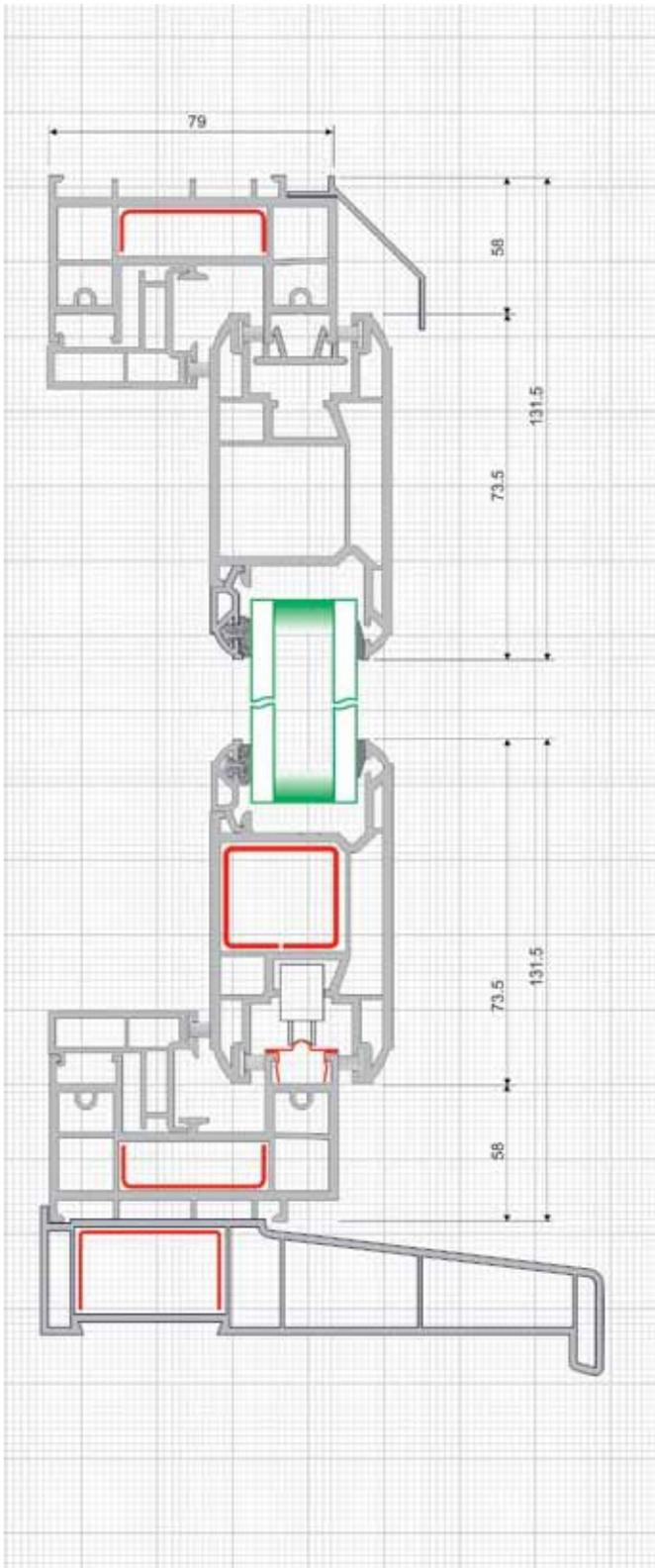
- Dedicated outerframe height of 46mm.
- Sash heights of 95mm.
- Aluminium low threshold cill height of 27 mm.
- Dedicated midrail accepts letterboxes.
- All sections available featured and bevelled.

WEATHERSEALS

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

TEST RESULTS

| Frame Type | Size | Air Permeability | Water Tightness | Wind Resistance | Standard | Accreditation Body |
|------------------------|-------------|------------------|-----------------|-----------------|---------------|--------------------|
| 2 pane external slider | 2400 x 2100 | 600Pa | 200Pa | 900Pa | BS6375-1:2004 | BBA |
| 2 pane internal slider | 2400 x 2100 | 300Pa | 150Pa | 900Pa | BS6375-1:2004 | BBA |



Scale 1:2

GENERAL FEATURES



THERMAL/ACOUSTIC

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- 'U' value simulations have been carried out to ensure the revised Building Regulations of October 1st 2010 are met. Further detailed simulations are being carried out and added to our already comprehensive portfolio.

CONTACT US

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