



# SWANAGE

TRADITIONAL AND BESPOKE STOCK BRICKS

Handcrafted splendour



# Swanage...

... creating bricks with personality and integrity for traditional & contemporary design

- Traditional handmade and stock bricks
- Imperial bricks available as standard
- Bespoke blends a speciality with Ibstock's unique bespoke blending service
- Non-standard sizes available
- Grey glazed headers available ex-stock
- Full range of special shapes available
- Ideal for matching traditional Edwardian and Georgian brickwork

## Handmade bricks of true character

Where Hardy's Dorset meets the Solent, Swanage creates individually unique bricks in a range of colours, textures and sizes to meet specific requirements for any size and type of construction project. Handmakers at Swanage lend their own special character to develop the warmth found only in true handmade bricks.



Blended by hand, traditional Swanage bricks include authentic imperials for restoration or refurbishment projects, especially those in conservation-sensitive areas, and grey-glazed headers characteristic of many original houses found throughout the South East.



In addition to a standard range of handmade and imperial-sized stock bricks, bespoke hand-blended products are a speciality at Swanage. These products are supported with Ibstock's unique blending service.

Non-standard sizes are also readily available to meet particular requirements such as matching up existing brickwork or creating a unique bonding pattern.



Swanage bricks have been used on many high value, prestigious projects including Paternoster Square, London, Millennium Library, Norwich & Douai Abbey, Reading.



Ulwell Multi

# Swanage Bespoke Blends

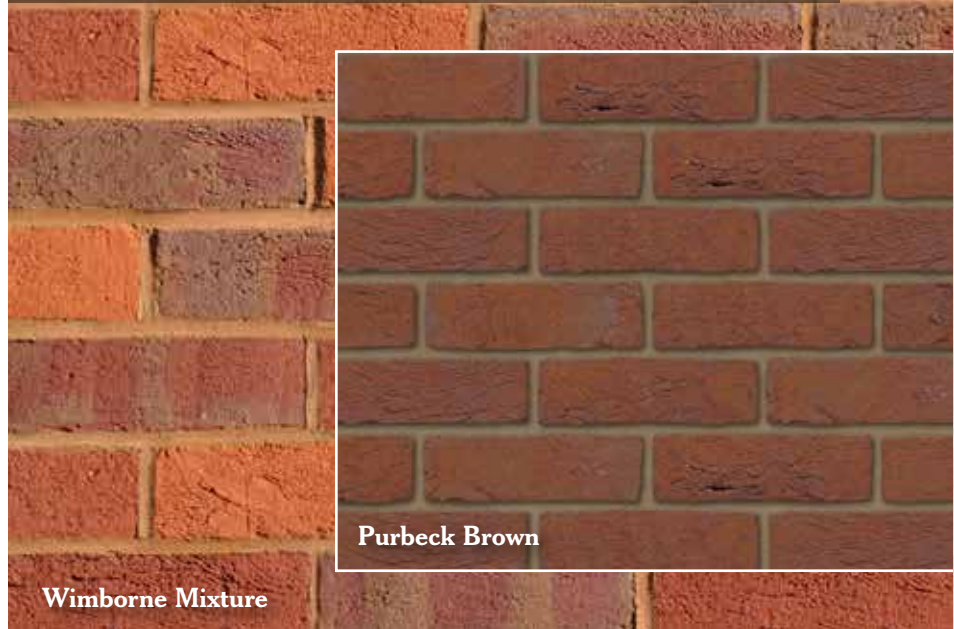
Swanage specialises in creating bespoke or purpose-made blends. These are blends of bricks created for a specific project or customer to meet a particular colour, texture or size requirement enabling the designer to fully exploit their creative flair or to match existing brickwork where a standard brick, ‘off the shelf’, doesn’t do the job.

These panels are just a few of the unlimited options available from Swanage showing blends in:

- 50mm, 65mm and Imperial size formats
- Handmade and fine stock textures in all or a range of Swanage colours
- Non-standard products such as grey glazed headers and brown bricks e.g Purbeck Brown
- Standard blends such as the Ulwell Multi and Wimborne Mixture

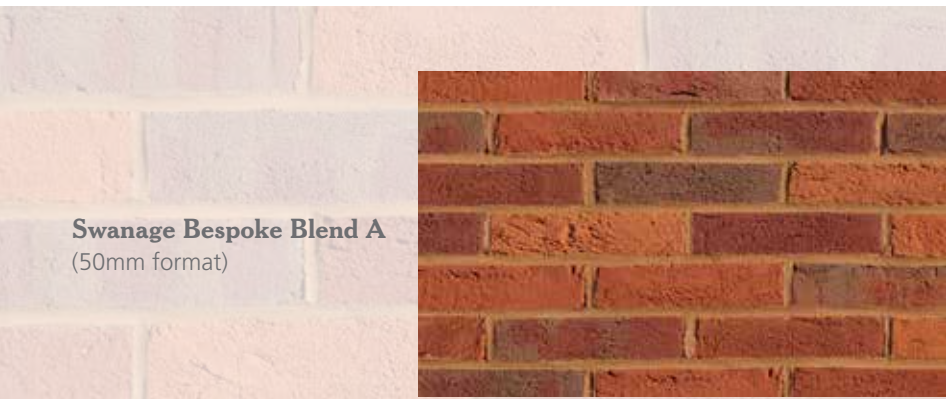
Bespoke blend projects are showcased throughout the brochure.

For more information on Swanage bespoke or purpose-made blends contact Mark Woolston on 01929 422257



Purbeck Brown

Wimborne Mixture



Swanage Bespoke Blend A  
(50mm format)



Swanage Bespoke Blend B  
(imperial format)



Swanage Bespoke Blend C  
(with glazed headers)



Swanage Bespoke Blend D



Swanage Bespoke Blend E



Private House, Stegham, Essex

Douai Abbey, Reading



**Swanage Handmade Light Red Multi**  
4303





Shiplake College, Henley-on-Thames (with Swanage Handmade Light Red Multi)

The Quay, Hamble, Southampton (with Swanage Handmade Light Red Multi)

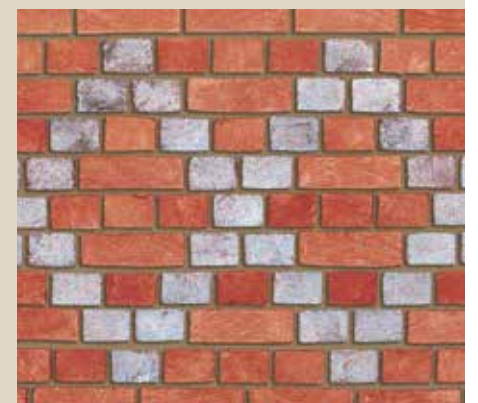


## Grey Glazed Headers

Grey glazed headers are a feature typically found on many traditional houses in the Wealden counties of Kent and East & West Sussex. Used as a feature, normally with plain red stock or handmade bricks, the glazed headers are either used in a variety of bonding patterns such as English & Flemish bonds or as a feature to create a particular pattern often in a diamond formation, such as on the dormitory buildings at Shiplake College, Henley-on-Thames.

Grey glazed headers are now normally used to recreate these effects on new build or to match adjacent brickwork often where planning requirements dictate. This recent upmarket new housing

development in the pretty village of Hamble in Hampshire blends well with the original residential and retail 19th century buildings throughout the village.



Used with Swanage Handmade Light Red



Colchester 6th Form College

**Swanage Handmade Light Red**  
4302





### Swanage Bespoke Blend St Lawrence Church Hall, Alvechurch, Warwickshire

A Swanage Bespoke Blend brings alive the Ark, the exciting new meeting place at St Lawrence Parish Church in Alvechurch, Warwickshire.

The restoration red colour of the Swanage bricks contrasts well with bands of buff coloured stone, emulating the red and white patterned brickwork incorporated during its restoration in the mid-19th century. The brick and stone combination enhances the distinctive ark design, whilst creating a contemporary feel alongside the mainly stone built church.





Private Apartments, Hampstead, London NW3 (Lawray Architects)

**Swanage Imperial Light Stock 68mm**

4317





Main brick - Swanage bespoke blend, see pages 18 and 19



Main brick - Swanage bespoke blend (Handmade Light Red and Restoration Red)

### Swanage Special Shapes

A full range of both manufactured and cut and bonded specials is available in British Standard and non-standard formats for all Swanage products including bespoke blends. This ensures a seamless match with the main feature brick.

Matching up with existing special shapes forms part of the service provided by Swanage, particularly on refurbishment projects where often there is a requirement for intricate ornamental designs typical of Victorian masonry architecture.

Swanage special shapes are supported by the Ibstock-Kevington special shapes service including prefabricated arches, underslung soffits and factory made brickwork details for use with conventional masonry, saving time and money on site.



Main brick (above and below) - Swanage bespoke blend, see page 26



Main brick - Swanage Handmade Light Red Multi





### Swanage Bespoke Blend Orangery, Cane End, Reading

The Orangery at Cane End, Reading is a beautiful example of using new bricks to blend in with much older brickwork whilst introducing traditional-type features such as detailed dentil brickwork and semi-circular arches over deep feature windows.

The brick blend was selected to match existing walls and barns. The front elevation is formed of a one-brick thick external cavity in Flemish bond overlooking the pool. Particular attention was paid to arching and corbel specials in the cornice to re-emphasise the arched openings.

All specials and elevations were evaluated by the Ibstock design service, including all copings and corner bricks. Rebated specials form subtle panelling effects on the columns between arches, which break down the scale and add relief.





Hotel, Binley, Coventry

**Swanage Handmade Restoration Red**  
4312





### Swanage Special Blended Imperial Cranleigh School, Surrey

Imperial sized bricks are often required to match up with existing Victorian brickwork, often in soft red handmade stock bricks.

At Swanage, Imperial sized bricks are available as standard in both smooth sanded stocks and true handmade bricks, giving the option of subtle textural options.

At Cranleigh School in Surrey the recently completed Ems Building features buttressed brickwork using Swanage handmade Imperial bricks.





Penlu Flats, Swanage

**Swanage Handmade Heather Red**

4301





### Swanage Bespoke Blend Kimcote Hall, Kimcote, Leicestershire

Kimcote Hall, a new family farmhouse, utilises the Swanage Handmade Light Red Multi facing brick laid in a Flemish bond with strong plinth detail firmly grounding the building. Stone coursing and detailing to include corbels and parapets are utilised.

The external appearance of the dwelling is finished off with highly detailed chimneys incorporating stone banding and brick, giving the external appearance a varied interesting profile.

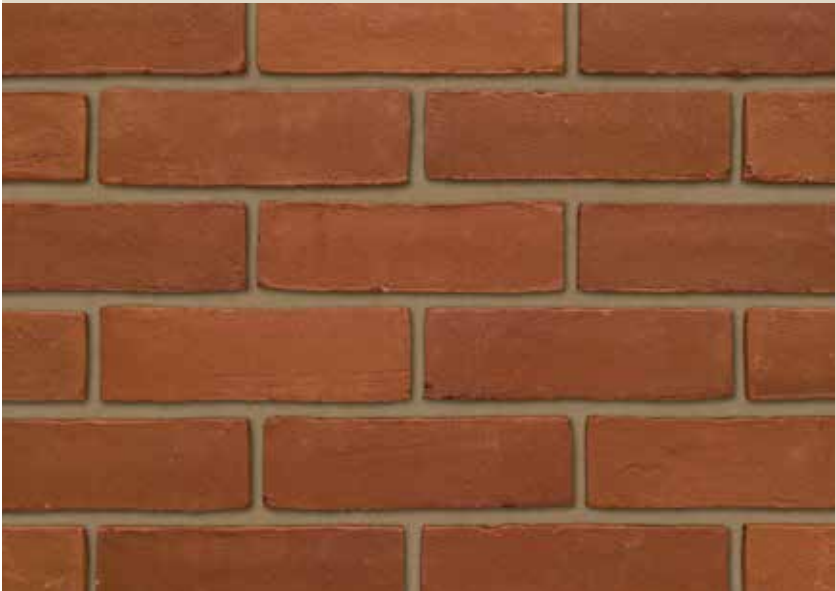
Both the standard and circular plinth details perfectly match the main facing brick, enhancing the overall impact of the total building rather than creating individual features.





Watch Tower, RAF Museum, Hendon

**Swanage Imperial Red Stock 68mm**  
4316





### Swanage Bespoke Blend Fulton Building, University of Sussex, Brighton

Swanage bricks have been used on several projects at the University of Sussex over a number of years. The Falmer blend, consisting of 60:40 ratio of fine-sanded brown and light multi Swanage handmade bricks, was chosen to match the "Boiler House" an adjacent existing listed building. The blend has here been used on the recently completed Fulton Building which includes two impressive 150-seat, elliptical stepped floor lecture theatres, each enclosed by two interlocking C-shaped brick forms. Architects, ADP, have continued to use the same blend over a varied range of designs.

Standing amongst Sir Basil Spence's 1960s iconic architecture, the building echoes his style of simple forms created from locally sourced materials - brick, concrete, white paint and stained glass - whilst respectfully making its own mark on the landscape.





# SWANAGE

TRADITIONAL AND BESPOKE STOCK BRICKS



**Ibstock Brick Ltd**

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**www.ibstock.com**



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**IBSTOCK**<sup>®</sup>  
building sustainability

INDIVIDUAL BRICKS FOR BUILDINGS OF CHARACTER

**Ancon**<sup>®</sup>



**Ibstock  
Kevington**

**NEXUS<sup>®</sup>**  
BRICK-FACED  
SUPPORT SYSTEMS  
REACHING NEW HEIGHTS



Brick, the UK’s favourite cladding material, is increasingly being used to deliver visually stunning buildings, with design elements that can sometimes appear to challenge normal structural principles.

Among these, and rising in popularity, are deep reveals and soffits where the main façade extends seamlessly to large areas of exposed brickwork forming overhangs and recesses.

These aesthetically pleasing features pose complex engineering issues, as these areas of brick must be held in place but with the necessary supporting steelwork remaining unseen.

To answer this challenge, Ibstock Kevington and Ancon, two of the UK’s foremost innovators in prefabricated brickwork manufacture and support, created **NEXUS**, a range of advanced lightweight solutions that make modern brick-faced soffits and lintels achievable and easy-to-install.

And now, the range has been extended, developed further in response to the changing legislative landscape post-Grenfell.

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One of the major issues facing our industry today is fire safety, and companies such as ours, industry organisations and legislators are continually looking to develop new, innovative solutions to make the world a safer place.

At Ibstock Kevington and Ancon we want to do ‘the right thing’ - our sense of responsibility stretches not just to our customers but to all those who encounter our work.

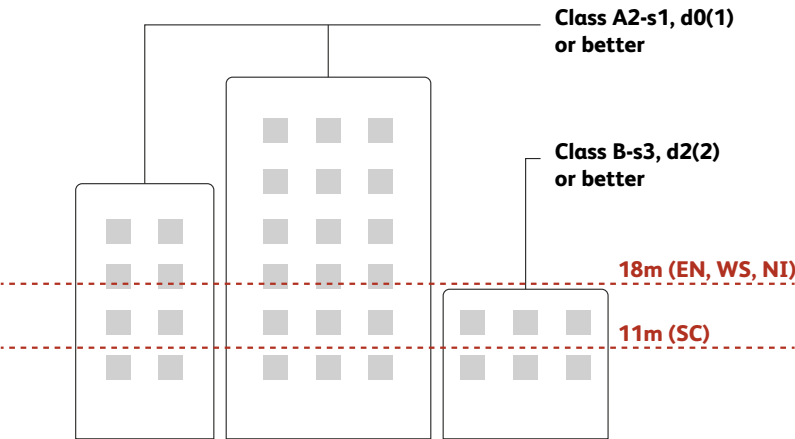
So when faced with challenges such as major changes in legislation, we see this not as an obstacle to overcome but as an opportunity to improve our product offering.

In April 2019 ‘Approved document B: Fire Safety – Volume 1 & 2’ was amended, with a direction that all materials used for cladding on residential buildings above 18 metres must be of ‘limited combustibility’. Within this guidance, allowed materials are those classed as A1 or A2 under the European Classification system.

Over time we envisage that the above regulations will become more stringent.

It was these changes that led us to develop our world leading mechanically-fixed **NEXUS** soffit and lintel solutions, this family of products now extended to include the innovative **NEXUS XI**.

## Illustration of Approved Document B update

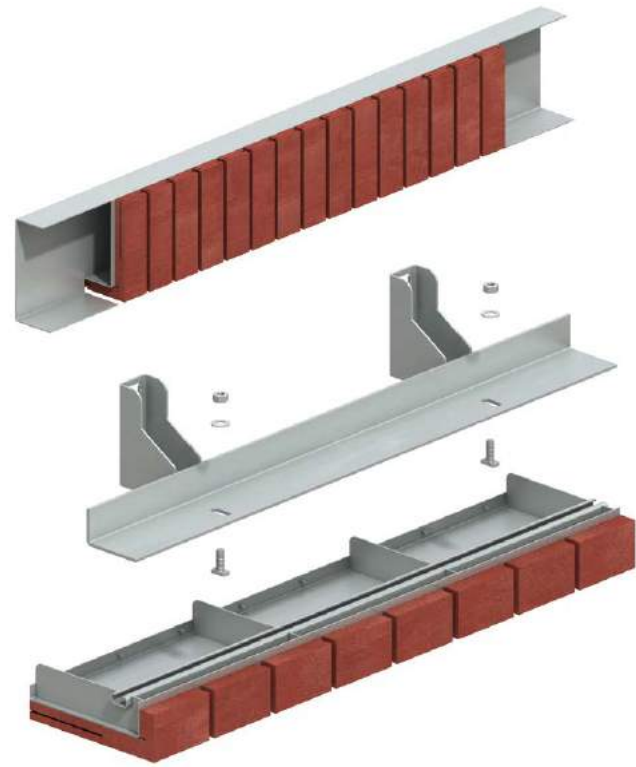


EN - England, WS - Wales, NI - Northern Ireland, SC - Scotland

# NEXUS® UNBEATABLE INNOVATION

The BBA approved family of **NEXUS** brick-faced soffit and lintel systems is a next generation solution that brings together a high integrity steel Ancon support system with engineered brick-faced units from Istock Kevington.

Its lightweight design sees weight cut by more than half when compared to traditional precast concrete alternatives, and its ease of handling ensures it can be installed without the use of specialist lifting equipment.



- ✓ BBA approved
- ✓ Prefabricated off-site, making installation quick and inexpensive
- ✓ Two-part system allows full adjustment for perfect alignment
- ✓ Precision engineered using the highest quality materials, meaning it guarantees durability and cost effectiveness
- ✓ 100% corrosion resistant stainless steel
- ✓ Designed and prefabricated to fit any size or shape soffit
- ✓ Any brick type and bond pattern can be accommodated
- ✓ Manufactured in the UK
- ✓ Free technical advice and design service

# THE NEXUS® FAMILY FULLY COMPATIBLE RANGE OF PRODUCTS

## NEXUS ORIGINAL

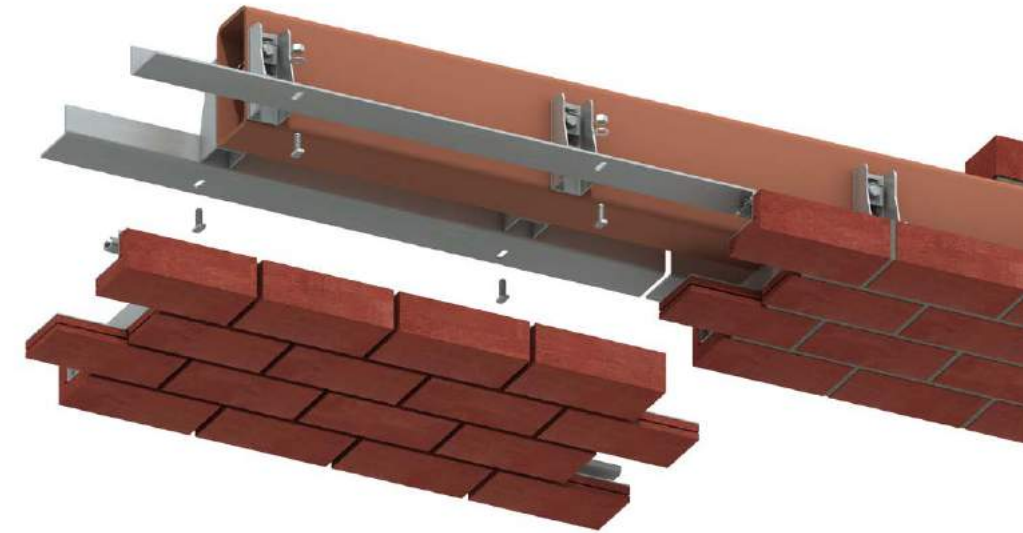
Suitable for buildings up to 18m high

- BBA approved up to 18m
- Brick slips bonded to stainless steel units using high strength adhesive
- Established, proven system

## 'NEW' NEXUS XI

Suitable for buildings over 18m high

- BBA Approved for all building heights
- Brick slips mechanically fixed to stainless steel unit at a minimum of three locations
- Complies with Building Regulations Approved Document B: Fire Safety 2019
- 'A' Fire Rating



## WITH NEXUS® YOU GET DOUBLE



**Double the expertise** - combining the expertise of two of the UK's leading construction specialists



**Double the knowledge** - more than 150 years' experience in high integrity brickwork support and brick engineering



**Double the technical support** - technical experts in both fields



**Double the commitment** - two companies with a history of innovation, quality and excellent customer support

## Ancon®

Part of Leviat, a CRH company, leading masonry support brand, Ancon, has a global reputation for innovation, quality and customer service.

The Ancon range of steel components provides strength and stability to buildings and structures around the world. Trusted for their integrity, reliability and compliance, Ancon steel fixings are precision-manufactured to perform in the most demanding concrete and masonry applications.

## Istock Kevington

Part of the UK's leading manufacturer of clay and concrete building products, Istock Kevington is the foremost provider of brick special shapes and prefabricated masonry components.

Recognised for its technical expertise in designing precision manufactured prefabricated and precast elements, Istock Kevington specialises in simplified solutions for traditionally complex construction requirements.

# NEW NEXUS® XI BRICK-FACED SOFFIT AND LINTEL SYSTEMS

**NEXUS XI**, the latest addition to the NEXUS family, provides an innovative mechanically fixed suspended brickwork soffit and lintel solution.

**NEXUS XI** has secured an 'A' fire safety rating from the BBA, meaning it can be specified and installed with confidence on high-rise residential buildings over 18 metres, in compliance with the recent amendment to Approved Document B of the Building Regulations.

The system comprises a stainless steel soffit tray or lintel with a semi-flexible bedding agent retained in the system to reduce vibration between the stainless steel and brick slip, securing a fire rating of A2,S1,D0.

Alongside its key safety credentials, **NEXUS XI** packs a number of other primary benefits, including:

- ✓ Quicker to install - no mechanical lifting
- ✓ 70% lighter on average than precast alternatives
- ✓ Simply lift into position
- ✓ Designed and prefabricated to fit any size or shape soffit
- ✓ Any brick type and bond pattern can be accommodated



For ultimate durability, **NEXUS XI** has been engineered as a mechanical fix solution. This means that each individual brick on the suspended brickwork system is held in place at a minimum of three mechanical fix locations.



## MECHANICAL FIX SOLUTION

100 % stainless steel mechanical fix solution, fixes straight into stainless steel tray. Proven durability and maximum corrosion resistance.



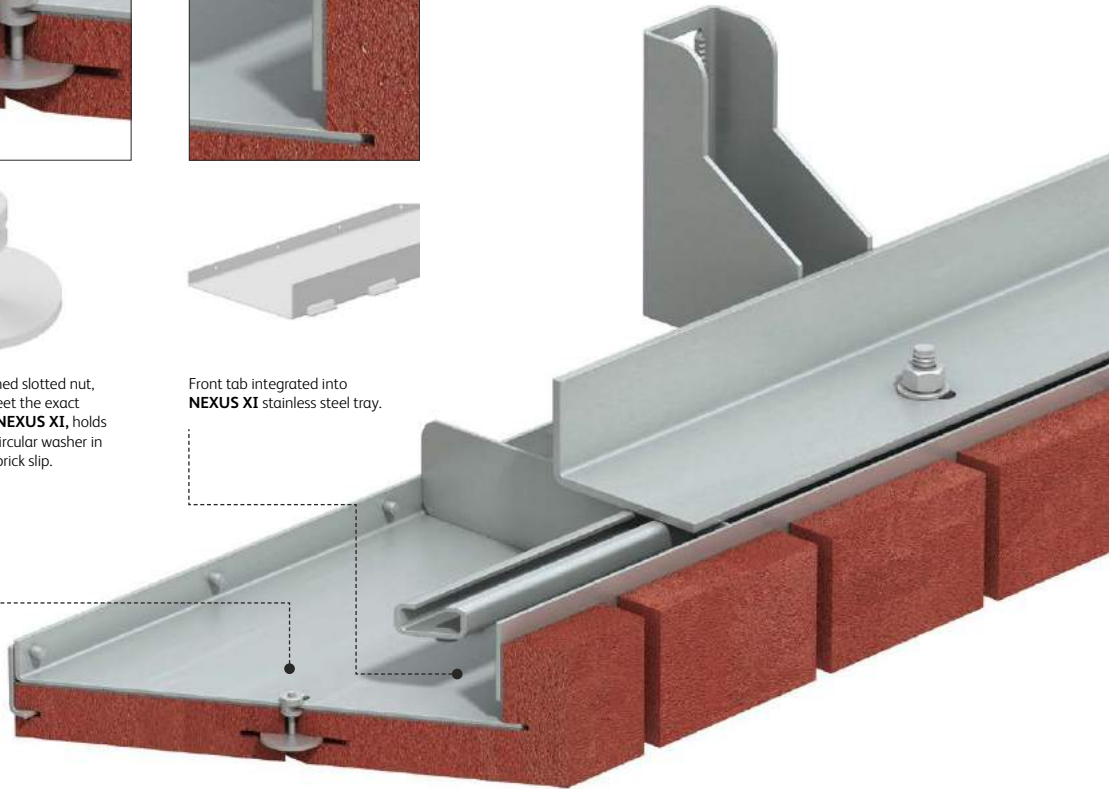
Rear clip fixes to **NEXUS XI** stainless steel tray using a Rivnut and Set Screw.



A specially designed slotted nut, engineered to meet the exact requirements of **NEXUS XI**, holds a stainless steel circular washer in place within the brick slip.



Front tab integrated into **NEXUS XI** stainless steel tray.



# NEXUS® ORIGINAL AND NEXUS® XI BRICK-FACED SOFFIT SUPPORT SYSTEMS

The **NEXUS** range of brick-faced soffit systems comprises both standard and bespoke solutions to enable the creation of deep reveals and soffits. Typical solutions are shown below. Bespoke solutions including other brick arrangements can be designed to suit project requirements. Please contact us for more information.

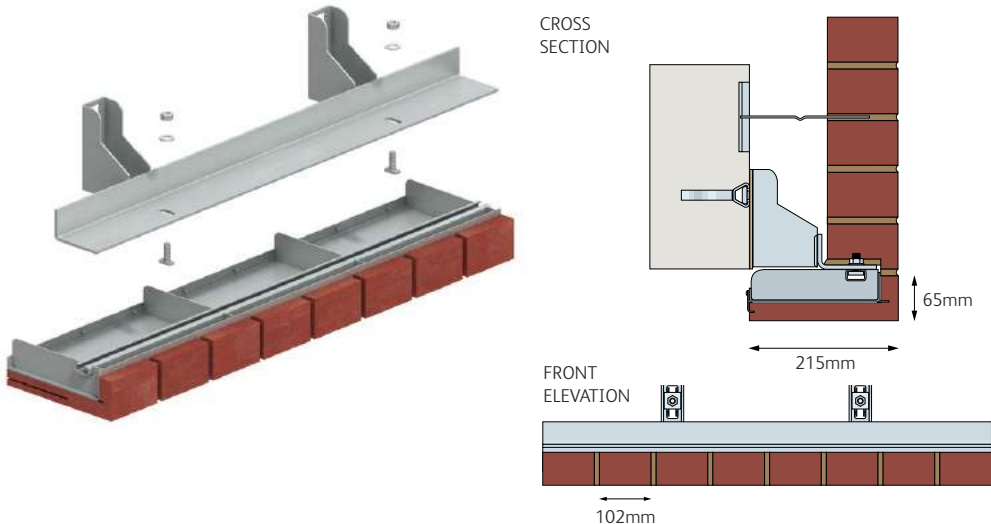


- ✓ Available in **NEXUS Original** and **NEXUS XI**
- ✓ Two-part system allows full adjustment for perfect alignment
- ✓ Lightweight design - simply bolt into position
- ✓ Designed and prefabricated to fit any size or shape soffit
- ✓ Any brick type and bond pattern can be accommodated

## 65 x 215mm WITH HEADER BOND

A simple, effective means of creating feature header details and reveals, with the header bond differentiating the soffit from the main façade.

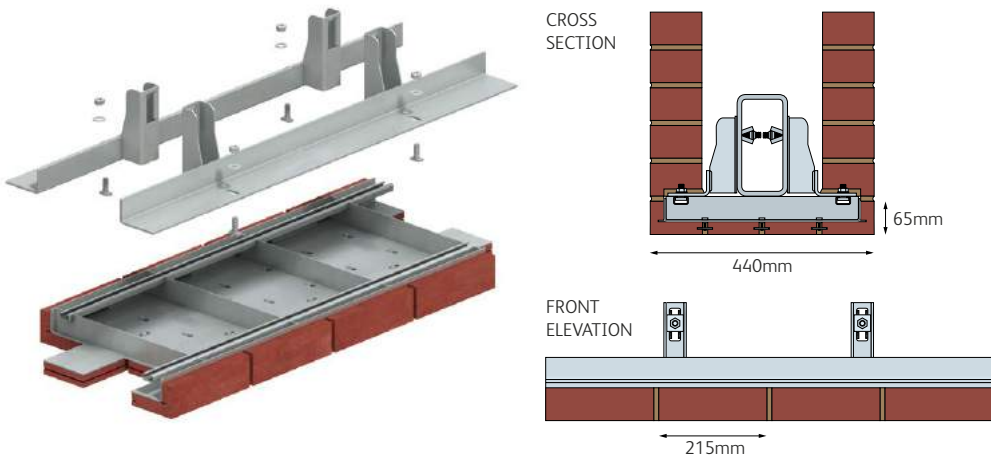
Brick slip facings can be manufactured from the same batch as the main brickwork to present a perfect colour and texture match.



## 65 x 440 x 65mm WITH STRETCHER BOND

Used to create double-sided soffit details providing continuity to the main brickwork façade.

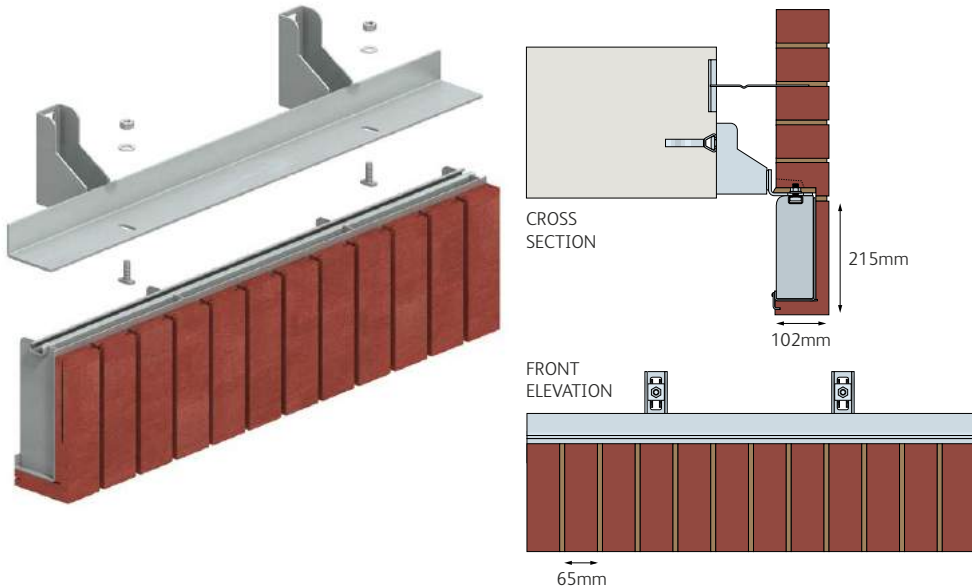
Each soffit unit is designed to interlock with the adjacent unit providing a flawless transition once the brickwork is pointed.



## 215 x 102mm WITH SOLDIER BOND

A simple, effective means of creating feature soldier course details above door and window openings.

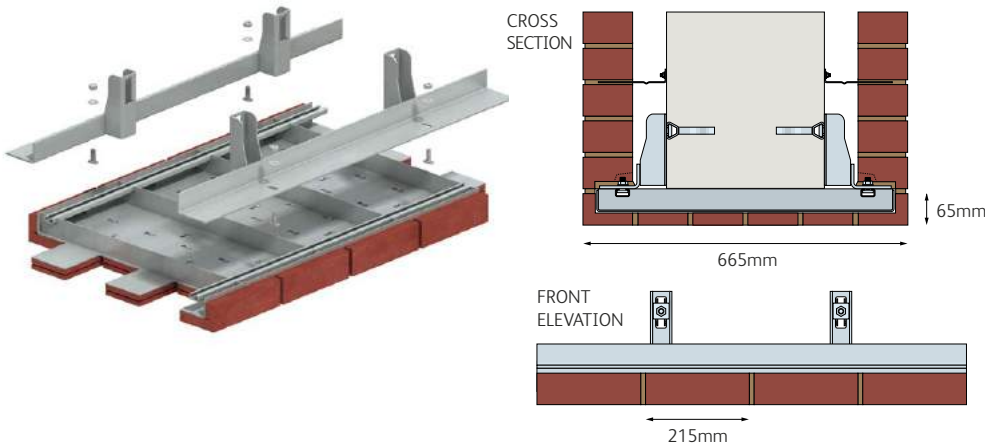
Brick slip facings can be manufactured from the same batch as the main brickwork to present a perfect colour and texture match for a flawless transition.



## 65 x 665 x 65mm WITH STRETCHER BOND

Used to create double-sided soffit details providing continuity to the main brickwork façade.

Each soffit unit is designed to interlock with the adjacent unit providing a flawless transition once the brickwork is pointed.

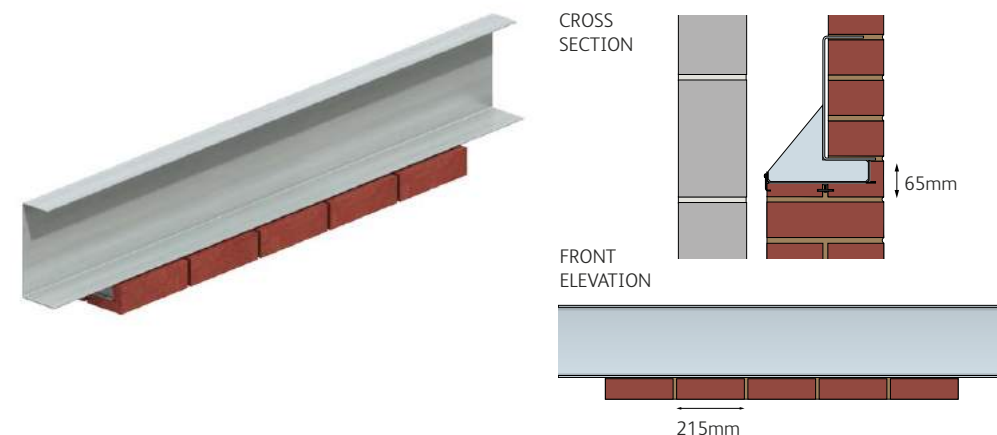




Woodside Health & Care Centre, Glasgow

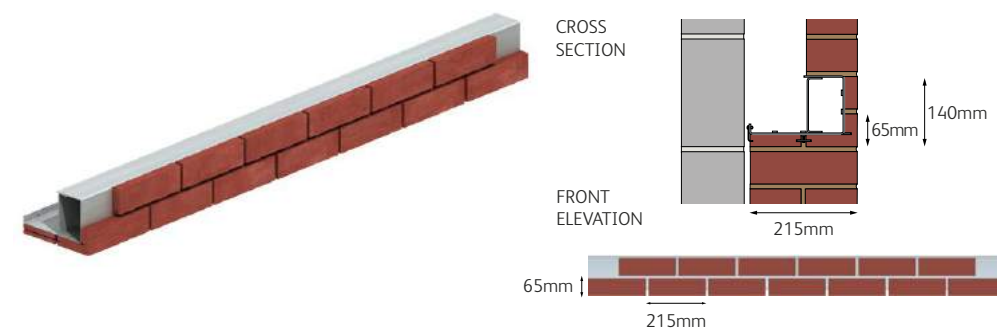
### 65 x 215mm WITH STRETCHER BOND

Used to create stretcher bond header details and maintain the brickwork bond over openings.



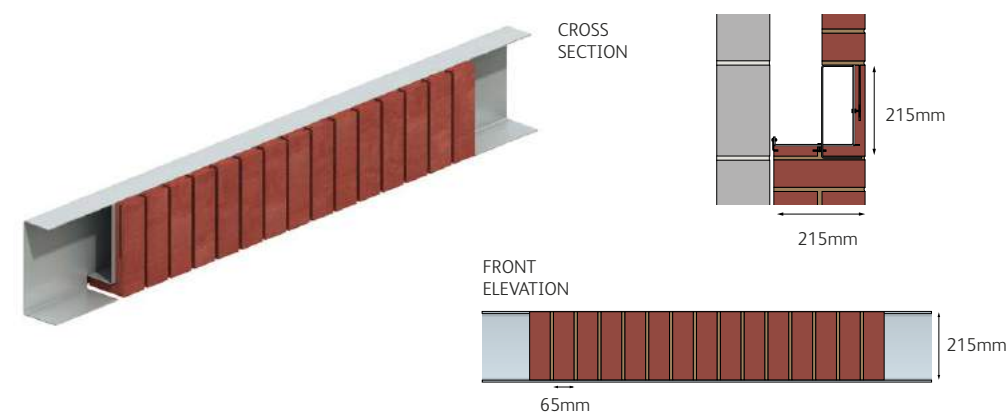
### 140 x 215mm WITH STRETCHER BOND

Used to create stretcher bond header details and maintain the brickwork bond over openings.



### 215 x 215mm WITH SOLDIER BOND

Used to create soldier course header details providing a simple, effective brickwork feature.

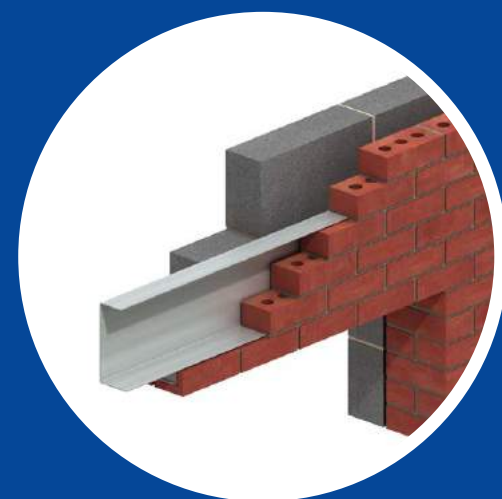


## NEXUS® ORIGINAL AND NEXUS® XI BRICK-FACED LINTELS

**NEXUS** brick-faced lintels are designed to carry a single leaf of a cavity wall. Prefabricated from stainless steel for maximum corrosion protection, they offer a quick and simple way of creating deep soffits above window and door openings.

They are ideal where speed is important - the permanently bonded brick slips, applied off-site, are manufactured from the same batch as the main brickwork providing a seamless blend meaning no compromise on quality or appearance. The lightweight design means the lintels can be simply lifted into place by hand, with no mechanical lifting equipment required, saving time on site.

- ✓ Available in **NEXUS Original** and **NEXUS XI**
- ✓ Manufactured off-site
- ✓ Lightweight, one-piece design – simply lift into place
- ✓ Designed to suit a variety of spans and loads
- ✓ Variable face and soffit depths available



# HOW TO SPECIFY NEXUS®

To discuss your **NEXUS®** requirements, simply call us on **0844 736 0350** or email **nexus@ibstock.co.uk**



## Technical and Design Support



### DESIGN ADVICE

An integral part of Ibstock Kevington's service is a full 3D CAD design and structural engineering service. This ensures that we can turn your design concepts into quality, cost effective, easy to build structural elements. Contact us with your requirements.



### CPD SEMINARS

Delivered by Ibstock Kevington's design advisors, who have considerable experience of these systems and in answering questions from both specifiers and contractors.



### NBS SPECIFICATION CLAUSES

Product information is listed within NBS Plus, part of the NBS industry standard specification software used by architects, building surveyors and other construction industry professionals. This means that technical information for our products is available to NBS subscribers, in NBS format, at the relevant point in the specification.



### PROJECT MANAGEMENT

We will work closely with you to coordinate the design, manufacture and delivery of the complete system to suit site progress.



### CONTRACT SUPPORT

Our technical and design staff are available to attend office and site meetings to provide assistance at any stage in the process including pre-tender and pre-contract.



## Specification Clauses

### ANCON MDC NEXUS ORIGINAL BRACKET ANGLE SUPPORT SYSTEM

Ancon MDC Systems are tailored to suit each project. Each system is based on the cavity size at the support and the unfactored masonry load to be carried. An economical configuration of channel, bracket and angle will be designed.

Specify MDC **NEXUS Original** / cavity / unfactored masonry load e.g. MDC **NEXUS Original** /75 / 5.6.

A standard system will be designed to suit a 75mm cavity and carry 5.6 kN/metre run of masonry (unfactored).

### IBSTOCK KEVINGTON NEXUS ORIGINAL SOFFIT UNIT

Brick or masonry slips permanently bonded direct to a grade 1.4301 stainless steel unit using a high strength bedding agent. The size of the unit and bond pattern of the brick slips are tailored to suit project requirements.

### IBSTOCK KEVINGTON NEXUS ORIGINAL LINTEL

Brick or masonry slips are permanently bonded direct to a grade 1.4301 stainless steel unit using a high strength bedding agent. The size of unit and bond pattern of the brick slips are tailored to suit project requirements.

### ANCON MDC NEXUS XI BRACKET ANGLE SUPPORT SYSTEM

Ancon MDC Systems are tailored to suit each project. Each system is based on the cavity size at the support and the unfactored masonry load to be carried. An economical configuration of channel, bracket and angle will be designed.

Specify MDC **NEXUS XI** / cavity / unfactored masonry load e.g. MDC **NEXUS XI** /75 / 5.6.

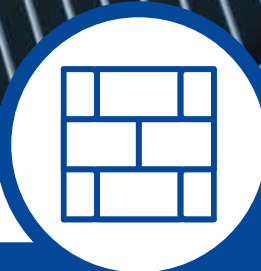
A standard system will be designed to suit a 75mm cavity and carry 5.6 kN/metre run of masonry (unfactored).

### IBSTOCK KEVINGTON NEXUS XI SOFFIT UNIT

Engineered brick or masonry slips mechanically fixed to a grade 304 stainless steel unit. The size of the unit and bond pattern of the engineered brick slips are tailored to suit project requirements. Specify face and soffit dimensions and bond pattern to be included on the **NEXUS XI** unit.

### IBSTOCK KEVINGTON NEXUS XI LINTEL

**NEXUS XI** Lintels are designed to carry a single leaf of a cavity wall. Tailored to suit each project, specification is based on the span of the opening and load to be supported. Engineered brick or masonry slips are mechanically fixed to the grade 304 stainless steel lintel. Specify opening size, face and soffit dimensions and load to be supported.



## Product Specifications

### STEELWORK

High grade stainless steel, manufactured in a BS EN 1090-1 approved factory and CE marked.

### FIXINGS

Stainless steel grade 304 slotted nuts, set screws, circular washers and Rivnuts.

### BRICK SLIPS

25mm thick and manufactured in accordance with BS 4729 and BS EN 771-1 and CE marked.

### BEDDING AGENT

Brick-Fix 31 A2 Firebond. Reaction to fire classification A2-s1, d0.

**NEXUS XI** has been tested by Lucideon for long term durability, including resistance of cladding and metal support tests, to comply with a robust BBA certification process as well as NHBC approval.



# NEXUS® BRICK-FACED SOFFIT AND LINTEL SYSTEMS INSTALLATION GUIDE

## Brick-Faced Soffit Systems

**NEXUS** soffit units are designed to be simply lifted and bolted to pre-installed Ancon MDC brick support angles. Each soffit unit comprises a stainless steel carrier with integrated Ancon channel to simplify installation to the brick support angle.



## INSTALLATION VIDEO

This video highlights the benefits of the system and demonstrates how quick and easy it is to install. Scan the QR code to watch the video or visit [www.ibstockbrick.co.uk/nexus](http://www.ibstockbrick.co.uk/nexus)



Both **NEXUS Original** and **NEXUS XI** are installed in the same simple way.

## Brick-Faced Lintels

**NEXUS** lintels are designed as a lightweight one-piece system which can be simply lifted into place.

### STEP 1

Install MDC **NEXUS** masonry support system in line with Ancon MDC Masonry Support Systems Installation Guide to the point where the fixing bolts are fully torqued.



### STEP 3

Add washer and nut to bolts and finger tighten onto angle. Ensure the T-head bolt is fully turned and engaged in the channel.

If the angle is correctly levelled there should be no need to add shims between the soffit unit and the angle. If however shimming is required then they should be added now. Horseshoe shims must 'surround' the bolt and extend for the full contact area between soffit unit and angle. They must NOT be placed in any other location other than around the bolt as this will lead to deformation of the angle when the bolts are torqued.

**NOTE:** The bolt should have a minimum of two threads visible above the nut, if shimming has reduced this clearance, longer bolts will be required.



### STEP 2

Place the **NEXUS** soffit unit's T-head bolts in the 28/15 channel to align with the slots in the angle and lift the soffit unit to the underside of the masonry support angle.

The soffit unit should continue to be supported through steps 3 and 4.



### STEP 4

Once satisfied with the line and level of the soffit unit, the bolts should be torqued to 20Nm.

The support to the soffit unit can now be removed.



### STEP 5

Brickwork should then continue on the masonry support system in line with normal bricklaying practice and the Ancon MDC Masonry Support Systems Installation Guide.

**NOTE:** The movement joint in soffit hung details is below the soffit unit. Compressible material should be placed below the soffit unit and NOT between the angle and soffit unit.

### STEP 6

Point soffit unit to match main brickwork.

### STEP 1

Raise the inner and outer leaves simultaneously to avoid excessive eccentricity of loading, with a maximum height difference of 225mm. Masonry should be laid on a full mortar bed and all perpendicular joints should be fully filled.

Allow the mortar to cure before applying floor or roof loads.



### STEP 2

Lintels must be suitably propped during construction at approximately 1 metre centres. On small openings, a central prop can be used. A board should be used between lintel and prop to protect the finished surface and spread the load evenly.



### STEP 3

Lintels should be installed with at least 150mm end bearing and be fully bedded on bricklaying mortar.

Ensure lintel is level along the length and width.



### STEP 4

The NHBC, PD6697 recommends a damp-proof course (DPC) or cavity tray is installed over all openings in external cavity walls.



### STEP 5

Weep-holes should be provided in the outer leaf above the lintel to drain moisture from the cavity. A minimum of two weep-holes should be provided per lintel. For fair-faced masonry, weep-holes should be provided at centres not greater than 450mm.



### STEP 6

Precautions must be taken to prevent mortar dropping through the cavity onto the lintel and obstructing the weep-holes.

### STEP 7

Brick slips should be pointed using the same mortar as the rest of the brickwork, but only after the full load has been applied to the lintel.



## CASE STUDY

### BOW RIVER VILLAGE, LONDON

#### PRODUCTS

NEXUS® brick-faced soffit units and lintels used at door and window heads.



# CASE STUDY

## SILCHESTER ESTATE, KENSINGTON, LONDON

### PRODUCTS

NEXUS® brick-faced soffit units and lintels supplied to window heads and entrance.





## CASE STUDY

### MUIRFIELD COMMUNITY CENTRE, SCOTLAND

#### PRODUCTS

235 custom-designed NEXUS® window head and colonnade soffits and lintel units.



## CASE STUDY

### GREAT EASTERN QUAYS, LONDON

#### PRODUCTS

2,300 linear metres of **NEXUS**® lightweight brick-faced soffit units.

## CASE STUDY

### BEAK STREET, LONDON

#### PRODUCTS

Bespoke glazed brick-clad soffit units.

To discuss your **NEXUS®** requirements,  
simply call us on **0844 736 0350** or email  
**[nexus@ibstock.co.uk](mailto:nexus@ibstock.co.uk)**

# Summary FW 50+

## Building Attachments

**FW 50+.1**  
**Frame Material group 1**  
**Mullion, Transom**

HEAD\_01

BOTTOM\_01

SIDE\_01

FPOINT\_01

SPOINT\_01

MULL\_01

TRAN\_01

## Mullions

## Transoms

## FW 50+ S Mullion, Transom

## Panels

MULLION

MULL\_AD1

MULL\_AD3

MULL\_90I

ELEM\_JT

MULL\_AD2

MULL\_AD4

MULL\_90E

TRANSOM

TRAN\_VAR

MULL\_S

MULL\_S1

TRAN\_S1

TRAN\_S2

TRAN\_S3

PANEL\_H

SPS\_H

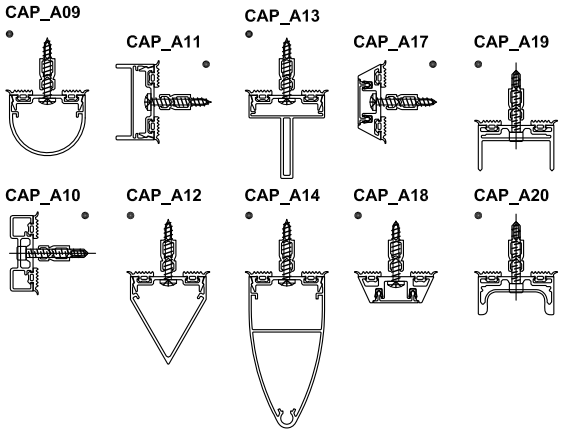
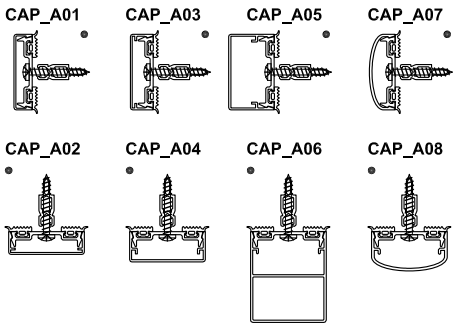
PANEL\_V

SPS\_V

## Cover Caps

## Glazing

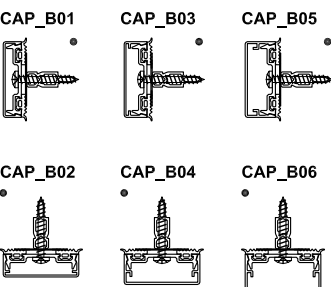
- Gasket principle A : gasket lengths with moulded intersections without butyl glazing tape



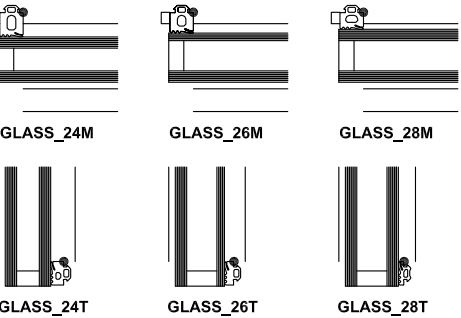
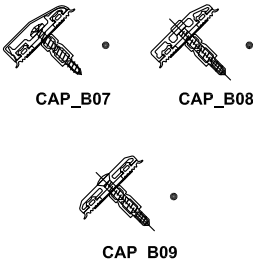
- Gasket principle A : stainless steel cover caps



- Gasket principle B : gasket lengths with butyl glazing tape



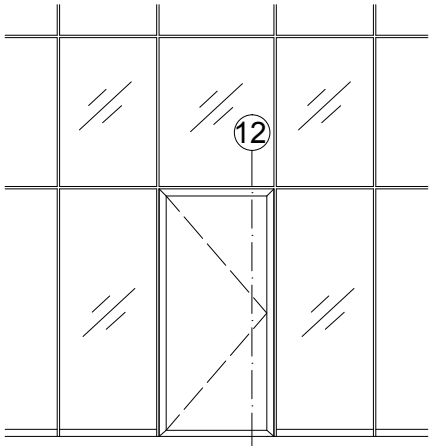
- for sloped glazing



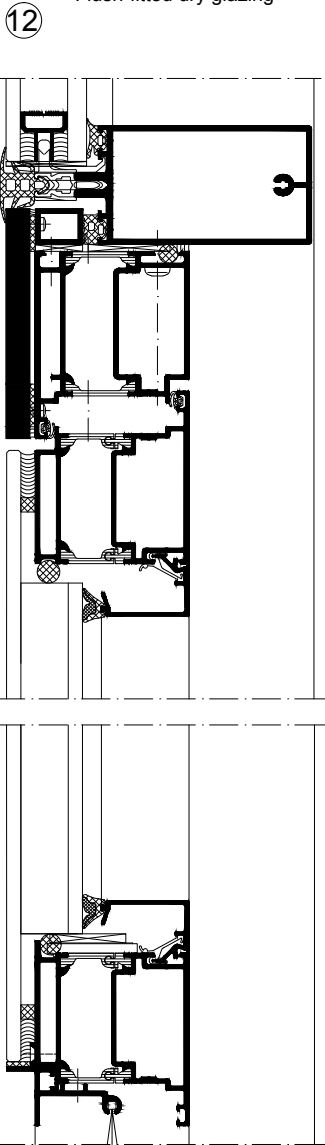
**SCHÜCO**  
INTERNATIONAL

**GB-3-FW50+\_01-00**

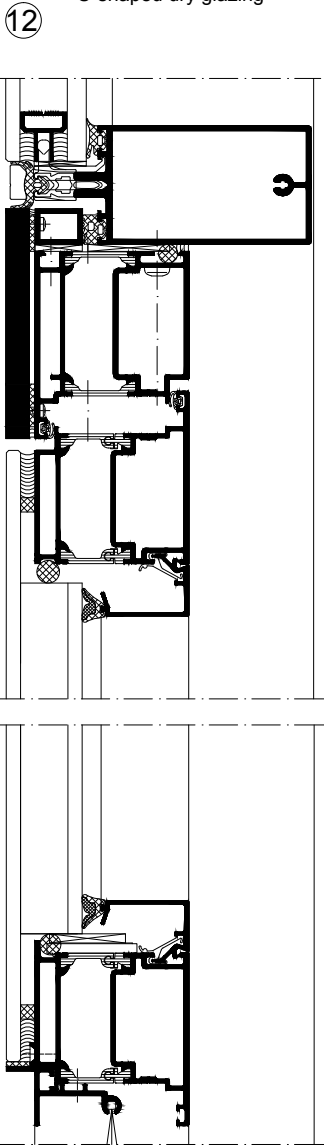
Einsatzelement ADS 65 SG  
ADS 65 SG insert unit



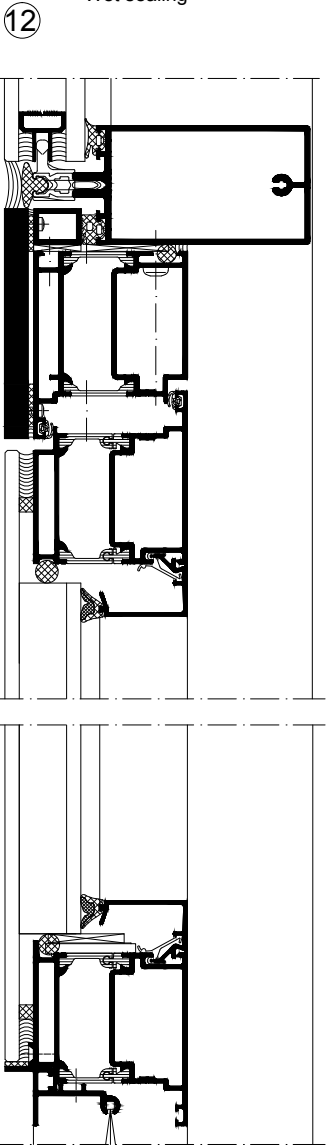
flächenbündige Trockenverglasung  
Flush-fitted dry glazing



U-förmige Trockenverglasung  
U-shaped dry glazing



Naßversiegelung  
Wet sealing



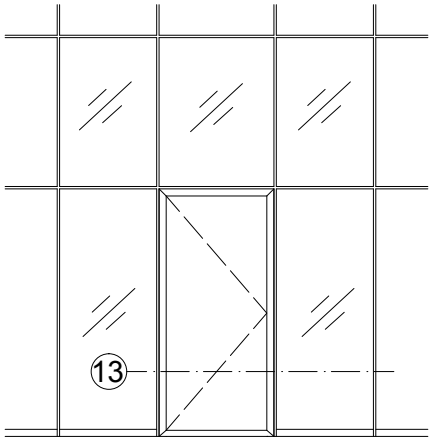
Elementschnitte - Pfosten / Riegel  
Unit section details - Mullion / transom

AB1000305

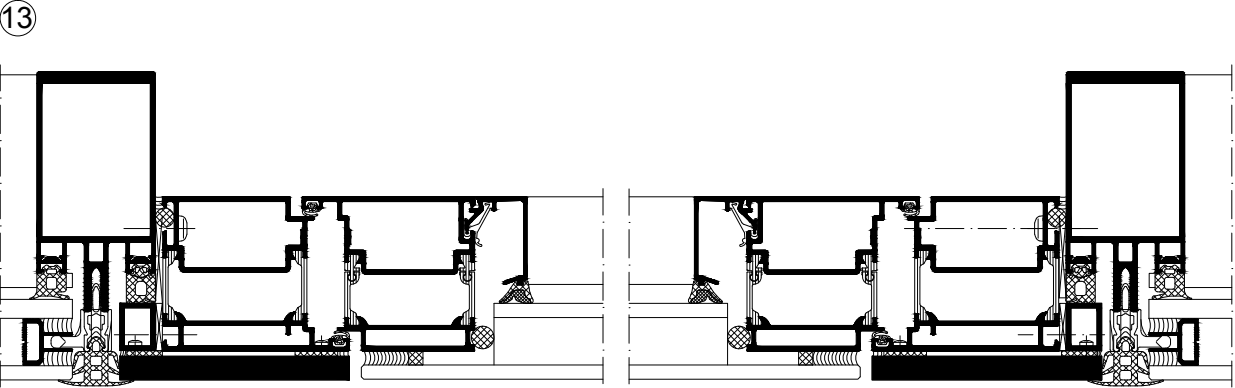
0100

Schüco FW 50+ SG

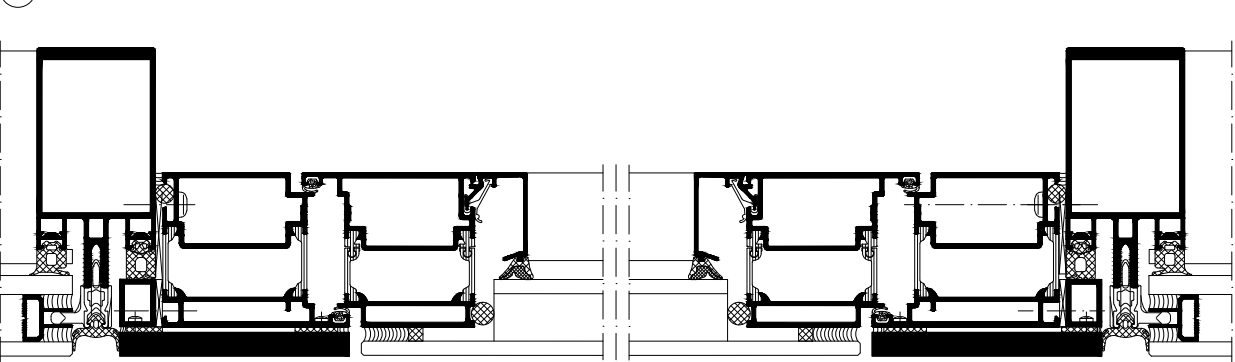
Einsatzelement ADS 65 SG  
ADS 65 SG insert unit



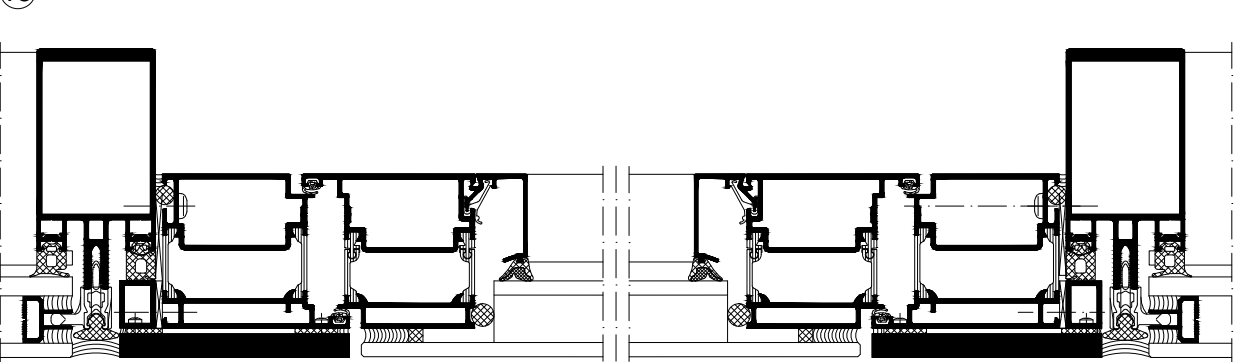
flächenbündige Trockenverglasung  
Flush-fitted dry glazing



U-förmige Trockenverglasung  
U-shaped dry glazing



Naßversiegelung  
Wet sealing



Elementschnitte - Pfosten / Riegel  
Unit section details - Mullion / transom

AB1000306

0100

Schüco FW 50+ SG

# the window collection

homes by senior

A stylish and practical range of aluminium windows that are the perfect fit for any home



A modern bathroom interior featuring a large window, a freestanding bathtub, and a patterned tile floor. The bathtub is white with a subtle geometric pattern. The floor is covered in black and white geometric tiles. A small wooden stool with a rolled-up towel sits in the foreground. A wooden vanity unit is visible on the right side of the frame. The window is large and framed in dark grey, providing a view of trees outside. A purple banner with white text is overlaid on the upper left portion of the image.

# Ali VU windows

Thermally efficient, with a high-performance polyamide thermal break.

Compatible with both double and triple glazing for extra thermal and acoustic efficiency. Fully security and weather tested.

Hard-wearing, durable and easy to maintain.



**AliVU**  
WINDOW SYSTEMS

## **Re-frame the look of your home with Ali VU – our stylish and flexible aluminium window system.**

Aluminium is becoming the material of choice for windows in homes across the country and one look at our Ali VU windows tells you why. Sleeker than PVCu and easier to maintain than timber, the natural strength of aluminium means larger spans of glazing can be supported in much slimmer frames to really 'open' up your home, giving uninterrupted views and copious amounts of natural light.

Offering a wide range of benefits and design options, Ali VU is perfectly at home in both new and period properties.

# Ali VU windows: design options

Versatile, affordable and built to last, our Ali VU aluminium top or side hung casement windows offer a range of different design features to match you and your home's individual style.

Versatile, affordable and built to last, our Ali VU aluminium windows can be used to create exciting new design schemes or to complement existing architectural features. The Ali VU system is available as a top or side hung casement window and benefits from a slim yet secure aluminium frame which allows you to create light and airy interiors with maximum peace of mind.



The perfect partner to our range of Ali aluminium doors



Available in an almost limitless range of colours and finishes



Durable and easy to maintain, with a life expectancy in excess of 40 years

- Choice of square or chamfered beads
- Both standard and feature (ovolo style) outerframes
- Radius, flat faced, stepped and flush faced vent options

Ali VU Casement

*Traditional top-hung window*



**Ali VU French Window**  
*Elegant design for wider openings*

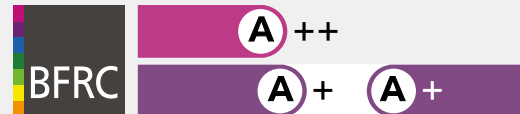


**Casement Style:** For a sleek and modern look, we can offer a flush casement option. This attractive style of window creates a clean and contemporary finish, with the window closing 'flush' to the outer frame.

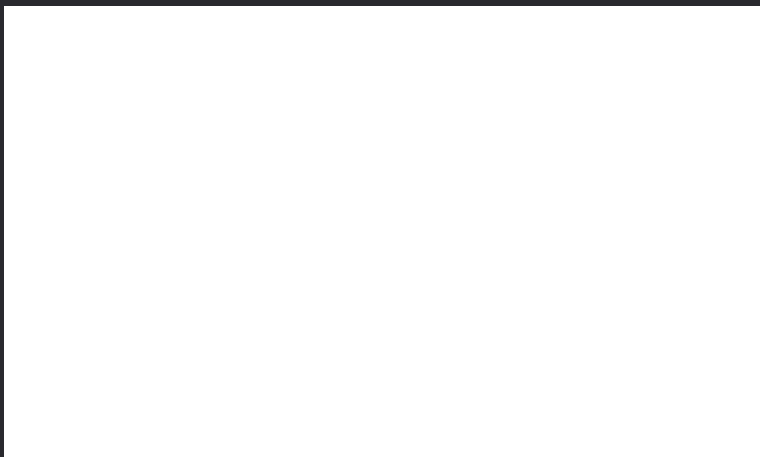
**French Window:** Our Ali VU aluminium windows are also the perfect partner for period properties, and the use of a stepped face option makes Ali VU an ideal replacement or heritage style steel windows.

**Glazing options.** Available in double or triple glazing. Up to 36mm (radius and stepped faced vent), up to 44mm (flat faced vent) and up to 60mm (flush vent)

**U values.** Ali VU: as low as 0.95 W/m<sup>2</sup>K



**AliVU**  
WINDOW SYSTEMS





# Del Prado®



For a stylish, aesthetically pleasing roof finish, look no further than Del Prado slate. The natural minerals, shimmering in the sunlight, make the roof a striking feature and enhance the overall design of your building.



# Product information



## Product profile

Quarried and hand split exclusively for SSQ in North-West Spain, SSQ Del Prado slate has an elegant blue-black colour and strong, deep texture.

SSQ Del Prado has achieved excellent results when tested in accordance with EN 12326, in addition to passing SSQ's own rigorous quality control tests, performed at source. It also carries the UKCA marking and is classified as 'W1-T1-S1' as well as been tested to the demanding Norm Français (NF 228), which has the strictest slate testing criteria and procedures in the world.\*

Each pallet leaving the quarry is subject to inspection and certification. Independent, random spot checks are also carried out to ensure the best quality.

\* Test results are available on request

## Appearance

SSQ Del Prado roofing slate has a riven texture and a natural unfading deep blue-black colour.

## Guarantee

SSQ Del Prado roofing slate is covered by 75-year guarantee.\*\*

\*\* Guarantees to be requested within 6 months of the date of completion of the roof.

Minimum headlap for fixing slates with nails or hooks according to BS 5534: 2014+A2:2018 Code of Practice for Slating and Tiling

Moderate exposure (< 56.5 l/m<sup>2</sup> per spell)\*

| Size (mm) | Rafter pitch |       |     |       |     |     |     |     |     |
|-----------|--------------|-------|-----|-------|-----|-----|-----|-----|-----|
|           | 20°          | 22.5° | 25° | 27.5° | 30° | 35° | 40° | 45° | 80° |
| 500 x 250 | –            | 150   | 120 | 100   | 80  | 70  | 60  | 55  | 50  |
| 450 x 220 | –            | –     | –   | –     | 80  | 70  | 60  | 55  | 50  |
| 400 x 250 | –            | –     | –   | –     | 80  | 70  | 60  | 55  | 50  |

Severe exposure (≥ 56.5 l/m<sup>2</sup> per spell)\*

| Size (mm) | Rafter pitch |       |     |       |     |     |     |     |     |
|-----------|--------------|-------|-----|-------|-----|-----|-----|-----|-----|
|           | 20°          | 22.5° | 25° | 27.5° | 30° | 35° | 40° | 45° | 80° |
| 500 x 250 | –            | –     | –   | 130   | 100 | 90  | 80  | 70  | 65  |
| 450 x 220 | –            | –     | –   | –     | 130 | 120 | 100 | 90  | 65  |
| 400 x 250 | –            | –     | –   | –     | 100 | 90  | 80  | 70  | 65  |

## Size and weight

| Size (mm) | Thickness (mm) | Weight per 1000 (kg) |
|-----------|----------------|----------------------|
| 500 x 250 | 5 - 7          | 2100                 |
| 450 x 220 | 5 - 7          | 1300                 |
| 400 x 250 | 5 - 7          | 1680                 |

The information, both technical and otherwise contained within this guide, is intended to provide illustrations on some of the ways in which SSQ products may be used and should be read in conjunction with all relevant British Standards, Codes of Practice and Health and Safety Legislation. Nothing contained in this brochure nor any advice or recommendation given by or on behalf of SSQ is intended to be relied upon in substitution for an appropriate technical and design appraisal of the specific use to which SSQ products will be put. SSQ will accept no responsibility for any loss or damage howsoever caused that may arise through the reliance being placed on the content of the brochure.

SSQ reserve the right to change designs and specifications without prior notice. All products are subject to our Terms of Business, available on request. The information and illustrations in this publication were correct at the time of publication.

## Coverage

### Nail fixing method

| Size (mm) | Lap (mm)                        |      |      |      |      |      |      |      |      |
|-----------|---------------------------------|------|------|------|------|------|------|------|------|
|           | 50                              | 65   | 75   | 80   | 90   | 100  | 110  | 115  | 120  |
|           | Number of slates/m <sup>2</sup> |      |      |      |      |      |      |      |      |
| 500 x 250 | 17.8                            | 18.4 | 18.8 | 19.0 | 19.5 | 20.0 | 20.5 | 20.8 | 21.0 |
| 450 x 220 | 21.7                            | 22.6 | 23.2 | 23.5 | 24.2 | 24.8 | 25.6 | 26.0 | 26.3 |
| 400 x 250 | 22.9                            | 23.9 | 24.6 | 25.0 | 25.8 | 26.7 | 27.6 | 28.1 | 28.6 |

(NB: No allowance has been made for wastage\*)

### Hook fixing method

| Size (mm) | Lap (mm)                        |      |      |      |      |      |      |      |      |
|-----------|---------------------------------|------|------|------|------|------|------|------|------|
|           | 50                              | 65   | 75   | 80   | 90   | 100  | 110  | 115  | 120  |
|           | Number of slates/m <sup>2</sup> |      |      |      |      |      |      |      |      |
| 500 x 250 | 17.8                            | 18.4 | 18.8 | 19.0 | 19.5 | 20.0 | 20.5 | 20.8 | 21.0 |
| 450 x 220 | 21.7                            | 22.6 | 23.2 | 23.5 | 24.2 | 24.8 | 25.6 | 26.0 | 26.3 |
| 400 x 250 | 22.9                            | 23.9 | 24.6 | 25.0 | 25.8 | 26.7 | 27.6 | 28.1 | 28.6 |

(NB: No allowance has been made for wastage\*)

\* Please refer to the **SSQ Natural Roofing Slate Design and Fixing Guide** for full details (available on [www.ssqgroup.com](http://www.ssqgroup.com)).

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**SSQ Northern Irish Office:** The YARD Group, 50 Moira Road, Aldergrove, Crumlin, BT29 4JL

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**SSO Spanish Office:** C/Academia Dequit No. 11° A, 32300 El Barco de Valdeorras, Orense, Spain

**E: [info@ssq.co.uk](mailto:info@ssq.co.uk) W: [www.ssqgroup.com](http://www.ssqgroup.com)**



# Concrete Multi Angle Ridge

## Product Technical Information Sheet

Size of Unit 457 x 250 x 90mm

Minimum Coverage of Roof Tile 75mm

Colours:  
Dark Grey  
Rustic  
Terracotta Red  
Light Grey  
Brown

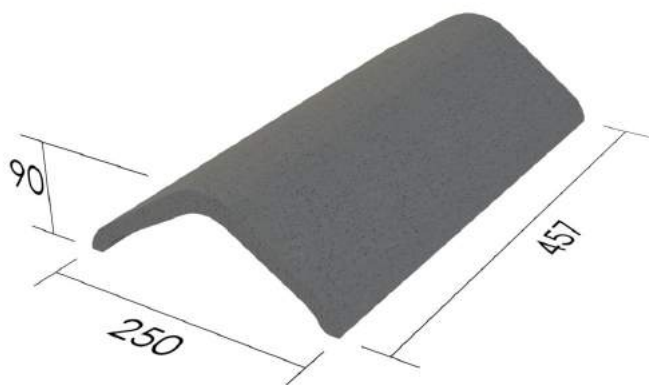
Weight Per Ridge 5.35kg

Weight Per Pallet 856kg

Quantity Per Pallet 160

Quantity Per Band 5

Material Concrete



Dark Grey



Rustic



Terracotta



Light Grey



Brown

## Compatible Accessories

Profile Ridge System

Roll Ridge System

Roll Hip System

Ridge End Cap

Mortar Bedded Ridge Fixing Kit

Profile Mono Ridge System

Multiversal Ridge & Hip system

## Decorative Ridges



Different combinations of end pieces, decorative crests and/or finials are available to suit this ridge profile.



1000+ products to choose from



Expert help and advice

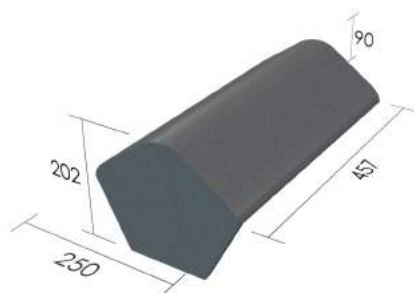


Comprehensive Design Services

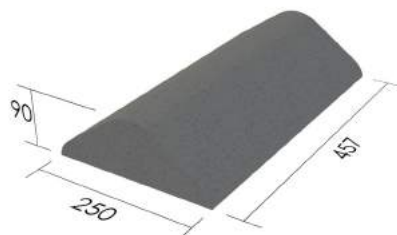


Technical Support

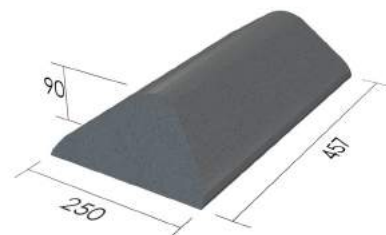
# Multi Angle Ridge



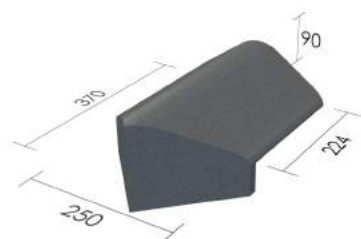
**Block End**



**Gable Stop**



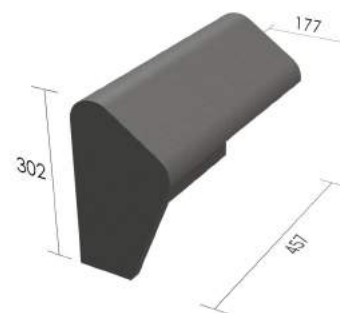
**Hip End**



**Hip Starter**



**Mono Ridge**



**Mono Ridge Block End**

(Available in Left and Right Hand.)

## Multi Angle Max Roof Pitches

| Max Pitch                              | Profile Ridge | Roll Ridge | Mortar Bedded |
|----------------------------------------|---------------|------------|---------------|
| Calderdale Edge / Dual Calderdale Edge | 45            | 45         | 50            |
| Britlock                               | 45            | 45         | 50            |
| Britslate                              | 45            | 45         | 50            |
| New Cassius                            | 45            | 45         | 50            |
| New Rivius                             | 45            | 45         | 50            |
| Balmoral                               | 45            | 45         | 50            |
| Dual TLE / TLE                         | 45            | 45         | 50            |

Maximum pitches shown are based on rafters meeting at an apex in perfect conditions. We strongly recommend you check that the ridge tile achieves the correct coverage of the roof tile, preferably at the design stage and certainly before installation begins. If used with a tile not shown above please contact Sandtoft technical.



**BIM Objects Download**



For projects with a pitch greater than stated maximum pitches, or unequal pitches, contact Sandtoft technical for support. All Sandtoft ridge tiles must be mechanically fixed in accordance with BS5534, either with an adequate dry fix system or a mortar bedded ridge fixing kit. Product specification is subject to change and will be updated accordingly

Issue Date: 16/06/2021

# PROTEC SYSTEM

## TECHNICAL DATA SHEET

V2.0

**POLYROOF**  
ADVANCED LIQUID ROOFING

Part of  
**Roberts  
Group**

## Introduction

Protec is a cost-effective, fast curing polyester roofing system that is ideal for a wide range of refurbishment and new build applications. The system is cold applied and fully reinforced providing a tough yet highly flexible seamless membrane. The system rapidly becomes weather resistant allowing fast access in situations where foot traffic is required. The ease of application of the system enables effective waterproofing over complex or awkward detailing such as protrusions and plant.

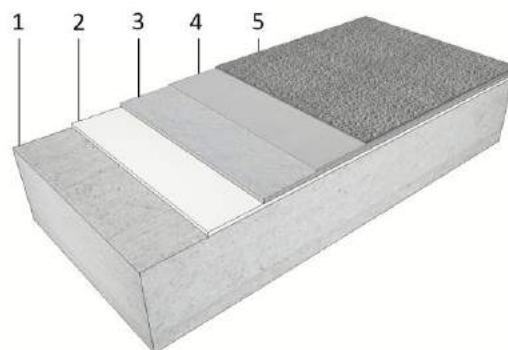
Suitable for direct application to a variety of substrates, including built-up felt, concrete, asphalt, plywood and many single-ply membranes, the system is well suited to refurbishment or new build projects of any size. In most cases there is no need for stripping of the old roof, and therefore is ideal for projects that require a fast solution with minimum disruption. Where required, insulation can be provided in conjunction with the system to offer improved thermal performance for projects that demand the highest requirements in energy efficiency. The system is also highly effective for use in inverted or green roof situations, which offer a wide range of environmental benefits.

For balconies and walkway applications the system is finished with PolyFinish MMA, a tough impact resistant yet flexible methyl methacrylate-based finishing coat. Used in conjunction with quartz sand aggregate, it has been specially developed to impart a highly wear resistant, anti-slip finish to the Protec system.

## Key Features

- BBA and FM approved
- 10 or 20 Year Guarantees
- Durable finish
- Choice of colours
- Suited to any size of project
- Quickly weather resistant
- Seamless cold-applied liquid membrane

## Typical System Build Up



1. Substrate
2. Primer (as required)
3. 1<sup>st</sup> Coat Protec Resin and Polymat 450 Reinforcement
4. 2<sup>nd</sup> Coat Protec Resin
5. Anti-slip Finish

## Colours & Finishes

Protec is available in three standard colours.



Light Grey



Quartz Grey



Chromite Grey

Optional mineral slate, quartz sand and Polyfinish anti-slip finishes are available.



Polyfinish



Blue Mineral  
Slate



Green Mineral  
Slate

\* For other colours/finishes consult Technical Services.

## Certification

Protec has been independently tested to the very highest standards and has British Board of Agrément and Factory Mutual approval.

**BBA Approval: 09/4676**

FM Approval: 3025793



## Fire Classification

Tests show that the system achieves Broof T4 in accordance with BS EN 13501-5: 2005.

## Physical Properties

| Test                    | Result                  |
|-------------------------|-------------------------|
| Thickness (mm)          | 2.0mm                   |
| Weight / m <sup>2</sup> | 2.73kg / m <sup>2</sup> |

## Foot Traffic / Mechanical Impact

| Test                | Method      | Result         |
|---------------------|-------------|----------------|
| Static indentation  | EOTA TR 007 | L4             |
| Dynamic Indentation | EOTA TR 006 |                |
| Concrete            |             |                |
| Unaged              |             |                |
| UV aged (1)         |             | I <sub>4</sub> |
| Insulation          |             | I <sub>4</sub> |
| Unaged              |             | I <sub>2</sub> |

(1) The test documents are detailed in the Bibliography. Numbers in the table refer to the sections/parts of the various documents.

## Root Penetration

Protec system will resist penetration by plant roots and can be used as a waterproofing layer in green roof specifications.

## Durability / Maintenance

The system has a BBA durability rating of at least 25 years. The system does not require any ongoing maintenance by the manufacturer, however standard biannual inspections and standard flat roof maintenance, good practice should be followed by clients as recommended in BS6229.

## Packaging

| Product                      | Pack Size | Code   |
|------------------------------|-----------|--------|
| Protec Resin – Light Grey    | 10 litre  | 121007 |
| Protec Resin – Quartz Grey   | 10 litre  | 121103 |
| Protec Resin – Chromite Grey | 10 litre  | 121109 |

|                                 |                   |          |
|---------------------------------|-------------------|----------|
| Polyroof Pigment (1)            | 0.6 kg            | 103(RAL) |
| Polymat 450                     | 17m <sup>2</sup>  | 104003   |
| Polymat 450                     | 30 m <sup>2</sup> | 104016   |
| Taping Mat 450 (75mm)           | 110 lm            | 104004   |
| Taping Mat 450 (300mm)          | 18 lm             | 104021   |
| Polyroof Powder Catalyst        | 1 kg              | 102003   |
| Uni-Primer DP                   | 5 litre           | 158101   |
| Polyroof Metal Detailing Primer | 250ml x 6         | 122067   |
| Mordant T-Wash                  | 5 litre           | 122007   |
| Protec Accelerator              | 1 litre           | 121201   |
| Uni-Primer DP Accelerator       | 0.5 litre         | 158103   |
| Protec Inhibitor                | 105g              | 121206   |
| SP Primer 202                   | 1 litre           | 122006   |
| Polyfinish – Dark Grey          | 9.6 litre         | 130011   |
| Polyfinish – Light Grey         | 9.6 litre         | 130010   |
| Polyfinish – Clear              | 10.3 litre        | 130017   |
| Quartz Sand Fine*               | 25 kg             | 109060   |
| Green Mineral Slate Grit        | 15 kg             | 109046   |
| Blue Mineral Slate Grit         | 15 kg             | 109049   |

\*A wide range of coloured aggregates are available for use with Polyfinish – Clear. Please contact Polyroof Technical Services for further information.

(1) Extra pigment is sometimes used to improve opacity of the top coat.

## Shelf Life / Storage

Shelf life 12 Months for Protec. This is based on unopened containers stored in dry, frost-free conditions away from heat.

## Health & Safety

Workers should wear appropriate PPE as detailed in the safety data sheet. Safety Data Sheet available on request.

## Specifying the System

Polyroof offer a free specification service. It is recommended that Polyroof Technical Services are contacted to provide specific advice on any project.

## Application

The system must only be applied by contractors who have been trained and approved by Polyroof and have a valid contractor's certificate.

## Temperature

The system may be applied between 3°C and 30°C (1°C and 30°C with Protec accelerator). The system must not be applied in damp or cold conditions which could cause surface condensation; during frost or if there is a risk of rain.

## Equipment

Apply using a Medium Pile Roller or Brush.

## Preparation

All surfaces to be coated (including any coatings, repairs or test areas) are to be inspected and made good where required to provide a sound substrate for the new waterproofing system.

All areas must be clean dry and free from contaminants such as dust, oil, grease, organic growth, sand and free from corrosion, laitance etc.

Specific guidance should be sought for any unidentified coatings such as solar reflective paint or any unidentified single ply membranes. Adhesion tests may be required.

Any unsound, loose or flaking material should be removed by mechanical means back to a sound surface.

Areas where the insulation or underlying substrate has collapsed or is defective or decayed, should be cut out, repaired and reinstated on a like-for-like basis to provide a good solid base for the coating system.

New galvanized steel and zinc substrates are treated with Mordant T-Wash at a coverage rate of 15 m<sup>2</sup> per litre. The wash is allowed to react and the surface conversion is indicated by a black deposit. The surface residue is washed off with water and dried prior to the application of the primer.

For full guidance on preparation of substrates please refer to the Protec Evolve Manual or contact Polyroof Technical Services for advice on 0800 801 890.

## Priming

The requirement for a primer will be dependent on the substrate. It is recommended Polyroof

Technical Services are contacted for advice on 0800 801 890.

| SURFACE                                                                        | PRIMER                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Polyroof SA Carrier layer<br>Polyroof RES Insulation (T&G)                     | No primer required as standard                                                                                                                                                                                                                     |
| Felt<br>Asphalt<br>Concrete<br>Timber<br>Polyroof RES Balcony Insulation (T&G) | Uni-Primer DP at an approximate coverage rate of 4-6m <sup>2</sup> /litre. Allow to cure.                                                                                                                                                          |
| Metal Surfaces (Detailing Only)                                                | Polyroof Metal Detailing Primer at an approximate coverage rate of 50-150ml/m <sup>2</sup> . Allow to become touch-dry.                                                                                                                            |
| Single-Ply                                                                     | SP Primer 202 at an approximate coverage rate of 12-15m <sup>2</sup> /litre. Allow to cure.<br><br>*Note: Adhesion tests are required to confirm compatibility and priming requirements. Consult Polyroof Technical Services for further guidance. |
| <b>IMPORTANT</b><br>For cure times of primers refer to Primer TDS or Manual    |                                                                                                                                                                                                                                                    |

## Product Inhibitors

Protec Inhibitor extends the pot-life of the Protec Resin which is invaluable when temperatures are high during the summer months. The Protec Inhibitor can be added to Protec Resin on site prior to use. It should only be added as temperature ranges permit.

**IMPORTANT:** Protec Inhibitor is not designed as a replacement for the catalyst. After the Protec Inhibitor has been added, you will still need to add the powder catalyst (at the minimum rate of 2%) before you use the product.

Add a full tin of Protec Inhibitor in to a full tin of product and stir thoroughly (taking care to ensure the full contents are transferred). Mix thoroughly to ensure that the Protec Inhibitor is evenly distributed in the product. You may use a

light mechanical mixer if required (EPI Mixer or similar).

Once the Protec Inhibitor is mixed into the product you can pour into smaller quantities if required e.g. 5 or 2 litres (Sometimes useful if you are unsure how much working time you have).

Only when you are ready to use the product should you add the catalyst powder.

### Product Accelerators

Product accelerators may be required for Winter / low temperature applications. Product accelerators speed up cure and allow product to be laid at lower temperatures than standard product (down as low as 1°C deck temperature). The accelerators are contained in an additive that can be added to standard resin products on site prior to use. They should be added only as temperature ranges permit.

**IMPORTANT: Accelerators are not designed as a replacement for the catalyst. After the Protec accelerator has been added, you will need to add the powder catalyst (at the maximum rate of 4% in cold conditions) before you use the product.**

Add a full tin of accelerator in a full tin of product and stir thoroughly. Mix thoroughly to ensure that the accelerator is evenly distributed in the product. You may use a light mechanical mixer if required (EPI Mixer or similar).

Once the accelerator is mixed into the product you can pour into smaller quantities if required e.g. 5 or 2 litres (Sometimes useful if you are unsure how much working time you have).

Only when you are ready to use the product should you add the catalyst powder

### Catalyst

The system is mixed on site by adding the pigment (if required) and then the catalyst to the resin in the correct proportions. The catalyst is added in the proportions given in the table below depending on the surface/air temperature, and stirred in accordance with the mixing instructions.

| Temperature | Catalyst Addition Rate | Scoops per Litre |
|-------------|------------------------|------------------|
| 3°C-10      | 4%                     | 4                |

|            |       |     |
|------------|-------|-----|
| 10°C -15°C | 3%    | 3   |
| 15°C -20°C | 2%-3% | 2-3 |
| 20°C -30°C | 2%    | 2   |

Catalyst proportion for Uni-Primer DP

| Temperature   | Catalyst Addition Rate |
|---------------|------------------------|
| Uni Primer DP |                        |
| 3°C -10°C     | 3%-4%                  |
| 10°C -20°C    | 2%-3%                  |
| 20°C -35°C    | 2%                     |

### Local Reinforcements / Detailing

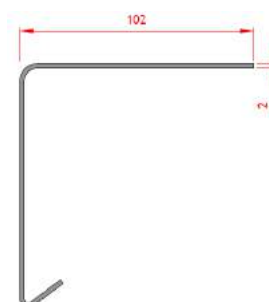
Protec may be applied to suitable existing detailing subject to preparation and (where necessary) priming. Alternatively, a range of Pre-formed Polyroof GRP trims may be used.

All detailing should be locally reinforced with Protec Resin and PolyMat 450 reinforcement prior to application of main system.

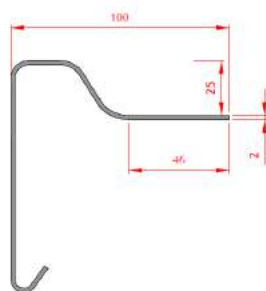
### Trims

#### Optional Preformed Trims

The Polyroof range of rigid GRP trims offer a fast, reliable way of installing finishing trims and ensuring perfect detailing. These trims are optional as, in many cases, the existing detailing can be retained. A wide range of non-standard profiles exist. Consult Polyroof with specific requirements.



Typical Drip Trim



Typical Upstand Trim

## Main System / Coverage Rates

| 1 <sup>st</sup> Coat                                           | 2 <sup>nd</sup> Coat        |
|----------------------------------------------------------------|-----------------------------|
| Smooth Surfaces:<br>1.3-1.5 Litre / m <sup>2</sup>             | 0.5 Litres / m <sup>2</sup> |
| Rough / De-Chipped<br>Surfaces: 1.5-2.0 Litre / m <sup>2</sup> |                             |

Important: All coverage rates are indicative only and it is the contractors' responsibility to ascertain the exact coverage rates on site. Coverage will always vary depending on substrate and the environment. Additional materials over and above this will be required to any areas that require local reinforcements, detailing etc.

## Main System Cure Time (Per Coat)

Typically 45mins - 1 hr

(Incorporating Protec Accelerator and catalyst as required)

## Anti-Slip Finish (Optional)

**Note - The following should be carried out upon completion of the application of the full Protec Evolve waterproofing system.** Please note that there is a maximum over coating time of up to 7 days. After this period cleaning with Acetone will be required allowing another 7 days over coating time.

## Maintenance Walkways

Mask off the perimeters of the walkway / roof to provide a neat termination of the anti-slip finish. Ensure masking tape is removed whilst resin is still wet.

Apply addition coat of Protec Resin at a minimum coverage rate of 0.5Litres/m<sup>2</sup> (2.0m<sup>2</sup>/Litre) and whilst wet broadcast Mineral Slate Grit at a minimum coverage rate of

2.5kg/m<sup>2</sup>. Once cured remove loose grit. Approximate finished coverage rate of grit will be 1.5kg/m<sup>2</sup> and the remaining grit may be recovered for future use

## Heavily Trafficked Areas

Mask off designated area.

Apply additional coat of Protec Resin at a minimum coverage rate of 0.5Litres/m<sup>2</sup> (2.0m<sup>2</sup>/Litre) and whilst wet broadcast clean dried quartz sand (0.7 - 1.2mm) at an approximate coverage rate of 4.0kg/m<sup>2</sup>. Once cured remove loose sand. Approximate finished coverage rate of sand will be 2.5kg/m<sup>2</sup> and the remaining 1.5kg may be recovered for future use.

Prior to the application of Polyfinish Resin re-mask off a 50mm margin around the perimeters of the roof. Ensure masking tape is removed whilst resin is still wet.

Apply Polyfinish Resin at a minimum coverage rate of 0.6Litres/m<sup>2</sup> (1.67m<sup>2</sup>/Litre). Allow to cure.

## Cleaning

All tools should be cleaned with Acetone immediately after use.

## Disclaimer

Polyroof Products reserve the right to amend product specifications without prior notice. The information provided in this literature is given in good faith. Recommendations for use should be verified to ensure compliance with all current building regulations and standards. Please check that this data sheet is the latest version by contacting technical services on 0800 801890 or visiting [www.polyroof.co.uk](http://www.polyroof.co.uk).

## **Additional Information**

### **Roof Construction**

Consideration should be given to the type of roof construction to which the system is to be applied.

These can be broadly categorised as:

- Direct overlays
- Warm roofs
- Inverted roofs

### **General**

Protec is suitable for both refurbishment and new build applications. The design of the roof to which the Protec system is to be applied should be in accordance with the relevant regulations, codes and good practice. Insulation may be incorporated as necessary.

### **Substrates**

The system can be applied to a range of substrate types including built up felt, concrete, asphalt, plywood\*, GRP, Polyroof RES insulation board (T&G) and single ply. The level of preparation and priming requirements will vary depending on the substrate type. Adhesion tests are recommended for single ply, solar reflective paint and other unidentified coatings or surfaces.

### **Direct Overlays**

Suitable for refurbishment or new build projects where insulation is not required. Existing roofs must be structurally sound and should comply with current building regulations.

### **Warm Roofs**

Suitable for new constructions or upgrade of existing roofs to meet current building regulation standards.

Protec is the ideal system for warm roof applications and is equally suited for both new build and refurbishments. An Air & Vapour control layer must always be provided prior to installation of rigid insulation boards and care should be taken to ensure the roof achieves the required U-value in accordance with current building regulations standards. The Protec Warm Roof System allows direct application to

an approved Polyroof RES Insulation (T&G) board and, or carrier layer.

### **Inverted Roofs**

Suitable for new build or refurbishment projects to meet current building regulation standards.

Inverted roof applications (also known as upside down or protected membrane roofs) are where the waterproofing layer is applied directly to the structural deck. The Protec system is ideal for inverted roofs and can be applied rapidly to existing or new decks. Decks should be capable of accepting the loading of ballast. Inverted roofs have the advantage of keeping the waterproofing membrane protected at all times and also and eliminate the need for mechanical fixings.

### **Lead & Copper Reproduction & Green Roofs**

#### **Lead and Copper Reproduction**

Protec lead roll finish is used on new build or refurbishment projects to reproduce the look of lead at lower cost whilst also removing the risk of theft.

The roll is formed using a pre-formed fibreglass trim. Various levels of reproduction colours and finishes are available to reproduce the look of lead or oxidised copper.

#### **Green Roof Systems**

The Protec membrane provides an ideal waterproofing solution for use in green roof systems as it is flexible enough to easily accommodate structural movements as well as being lightweight and extremely durable.



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# Flat roof windows

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Curved glass – New generation

Page 64

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Flat glass – New generation

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Dome with glazing

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Dome

Page 70

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Special function flat roof windows

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Vario by VELUX  
Bespoke rooflights

Page 74

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Modular skylights

Page 76



## New generation

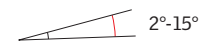
# Flat glass rooflight

Fixed or vented option available

The VELUX flat glass rooflight will bring the magic of daylight into your home. The unique design with a slim frame and invisible sash provides maximum daylight and a beautiful design from inside the home – even with a blind installed.

- Maximum daylight area
- Excellent energy performance
- State-of-the art design
- Excellent sound reduction

## Roof pitch



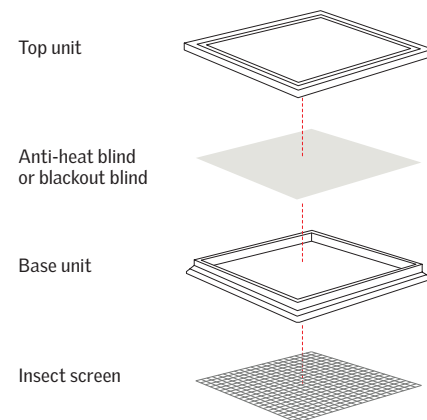
## Details

- The elegant choice for roof pitches from 2-15°.
- Glass-to-edge flat glass top unit.
- Unique window construction with a slim frame and invisible sash.
- Available with double or triple glazing for excellent energy performance and sound reduction.
- Laminated insulated glass unit for safety.
- Burglary resistant\*.
- Comes in a fixed, electric, and solar powered variant.
- Electric and solar powered variant provides fresh air at the touch of a button and has an integrated rain sensor.

\* Complies with EU legislative requirements for burglary resistance, class 2.

## Blind options

The blinds are discreetly placed in the base-unit construction, between the lower pane and outer glass, and do not compromise daylight, design or your views to the sky. See more about blinds options on page 120.



Mounting of blinds is done most conveniently during the rooflight installation process.

## Intelligent home control

- Combine your VELUX electric products with our intelligent home control solutions for multiple product operation, scheduling and automation

Read more on page 21.

## Details

- On all rectangular sizes, the motor is placed on the long side. Please, refer to the installation instructions for further details.

## News

Solar variant!  
Bigger sizes!



| Available sizes<br>(w×h) cm | U-VALUE**             |                       | 060060                   | 090060                   | 080080                   | 090090                   | 100100                   | 120090                   | 120120                   | 150100                   | 150150                   | 200100                   |
|-----------------------------|-----------------------|-----------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                             | Urc,ref300<br>W/(m²K) | Arc,ref300<br>Area m² | 60×60                    | 90×60                    | 80×80                    | 90×90                    | 100×100                  | 120×90                   | 120×120                  | NEW<br>150×100           | NEW<br>150×150           | NEW<br>200×100           |
|                             |                       |                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| Top cover                |                                            |      |     |       |       |       |       |       |       |       |       |       |       |
|--------------------------|--------------------------------------------|------|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| ISU 2093                 | Flat glass top unit                        |      |     | 326   | 360   | 389   | 432   | 480   | 499   | 624   | 634   | 864   | 907   |
| Base                     |                                            |      |     |       |       |       |       |       |       |       |       |       |       |
| CFU 0020Q                | Fixed base unit<br>2 layer glazing         | 0.75 | 4.1 | 322   | 359   | 383   | 426   | 473   | 492   | 577   | 591   | 776   | 814   |
| CFU 0025Q                | Fixed base unit<br>3 layer glazing         | 0.60 | 4.1 | 418   | 461   | 498   | 553   | 615   | 639   | 750   | 769   | 1,008 | 1,058 |
| CVU 0220Q                | Electric base unit<br>2 layer glazing      | 0.75 | 4.1 | 892   | 925   | 953   | 996   | 1,043 | 1,062 | 1,147 | 1,161 | 1,346 | 1,384 |
| CVU 0225Q                | Electric base unit<br>3 layer glazing      | 0.60 | 4.1 | 988   | 1,031 | 1,068 | 1,123 | 1,185 | 1,209 | 1,320 | 1,339 | 1,578 | 1,628 |
| CVU 0320Q <b>NEW</b>     | Solar powered base unit<br>2 layer glazing | 0.75 | 4.1 | 972   | 1,005 | 1,033 | 1,076 | 1,123 | 1,142 | 1,227 | 1,241 | 1,426 | 1,464 |
| CVU 0325Q <b>NEW</b>     | Solar powered base unit<br>3 layer glazing | 0.60 | 4.1 | 1,068 | 1,111 | 1,148 | 1,203 | 1,265 | 1,289 | 1,400 | 1,419 | 1,658 | 1,708 |
| Installation accessories |                                            |      |     |       |       |       |       |       |       |       |       |       |       |
| ZCU 0015                 | Extension kerb 150mm                       |      |     | 189   | 200   | 202   | 210   | 217   | 227   | 259   | 252   | 295   | 310   |
| ZZZ 210U                 | Frame fixing kit                           |      |     | 43    | 46    | 46    | 48    | 50    | 50    | 56    | 58    | 68    | 71    |
| LSF 2000                 | Lining*                                    |      |     | 259   | 277   | 283   | 296   | 308   | 314   | 333   | 345   | 370   | -     |

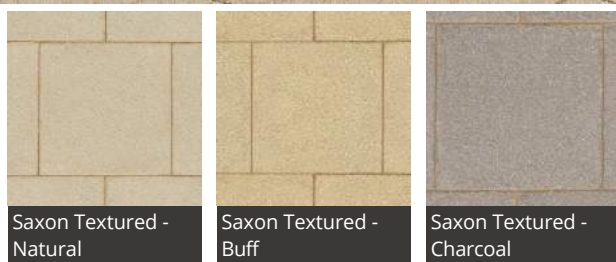
\* Lining for flat roof. This all-in-one solution includes PVC panels, vapour barrier and facings.

\*\* Calculated for a reference size of 1.2x1.2 m and 300 mm upstand, in a 0° roof pitch.  
New sizes available from summer 2022. Solar powered variant available from autumn 2022.

All prices in GBP (£)  
Find all sizes and prices on [velux.co.uk](https://www.velux.co.uk)

## Saxon 600 x 600 x 50

Date Created: 07/02/19



Marshall's Saxon Textured Flag Paving is designed to provide a unique surface finish through its blend of a hard Yorkstone aggregate. The manufacture of the paving stones, in which Saxon Paving is given its textured finish, means that it delivers both durability and non-slip properties.

With an extensive range of thicknesses and sizes available, Marshall's Saxon Textured Flag Paving is suitable for any landscape application.

Trafica formats and the optional use of patented Fibre Reinforcement also means that Saxon paving can be deployed in areas of variable loading requirements.

The paving is available in 3 colours - Natural, Buff and Charcoal. Additionally, a comprehensive choice of plan sizes is offered including Step Tread formats. Other products in the Saxon range include Saxon Bollard Surround Units and Saxon Kerb, allowing designers to create a uniform finish.

| DESCRIPTION                       |                                                                                |
|-----------------------------------|--------------------------------------------------------------------------------|
| Appearance                        | Solid unit with textured surface                                               |
| Manufacturing Process             | Hydraulically pressed concrete                                                 |
| Base Raw Material                 | Concrete                                                                       |
| Governing Manufacturing Standards | All data where relevant to be established in accordance with BS EN 1339 : 2003 |
| CE Marking/DOP                    | <a href="https://www.marshalls.co.uk/dop">https://www.marshalls.co.uk/dop</a>  |
| NBS Specification                 | Q25 315                                                                        |



# Saxon 600 x 600 x 50

Date Created: 07/02/19

## PHYSICAL PROPERTIES

|                                    |                                                                                    |              |
|------------------------------------|------------------------------------------------------------------------------------|--------------|
| Tolerances                         | Minimum (mm)                                                                       | Maximum (mm) |
| Length                             | 596                                                                                | 600          |
| Width                              | 596                                                                                | 600          |
| Thickness                          | 47                                                                                 | 53           |
| Work Dimensions (mm)               | 598 x 598 x 50                                                                     |              |
| Nominal Dimensions (mm)            | 600 x 600 x 50                                                                     |              |
| Tolerances on Work Dimensions (mm) | Length ±2mm, width ±2mm, thickness ±3mm                                            |              |
| Abrasion Resistance (mm)           | ≤ 23mm (Wide Wheel Abrasion Test)                                                  |              |
| Durability (Freeze-thaw)           | ≤ 1.0 kg/m <sup>2</sup> as a mean with no individual value > 1.5 kg/m <sup>2</sup> |              |
| Material Density                   | 2300 kg/m <sup>3</sup> (typically)                                                 |              |
| Slip/Skid Resistance (polished)    | Mean polished skid resistance value (PSRV) : > 45                                  |              |
| Slip/Skid Resistance (unpolished)  | Mean unpolished skid resistance value (USRV) : > 45.                               |              |
| Thermal Conductivity (K value)     | Design data as defined to BS EN 13369 : 2013                                       |              |

## SPECIFICATION

|                           |                                                         |
|---------------------------|---------------------------------------------------------|
| Approx unit weight (kg)   | 44                                                      |
| Emission of Asbestos      | No content                                              |
| External Fire Performance | Deemed to satisfy. See commission decision 2000/553/ECU |
| Reaction to fire          | Class A1, see commission decision 2000/605/EC           |

## SUSTAINABILITY

|                  |                                                                                                           |
|------------------|-----------------------------------------------------------------------------------------------------------|
| Breem            | These units can achieve an "A" rated system when used in conjunction with the correct sub-base components |
| Carbon Footprint | 17 kg CO <sub>2</sub> m <sup>2</sup>                                                                      |

## APPLICATION

|                        |                                                          |
|------------------------|----------------------------------------------------------|
| Loading Classification | Category 6 - 10 large goods vehicles per week (0.15 msa) |
|------------------------|----------------------------------------------------------|

## SITE WORKS

|          |                           |
|----------|---------------------------|
| Coverage | 2.8 no per m <sup>2</sup> |
|----------|---------------------------|

## SUPPLY

|                                 |                                                                            |
|---------------------------------|----------------------------------------------------------------------------|
| Av. pack size (m <sup>2</sup> ) | 7.2                                                                        |
| Units Per Pack                  | 20                                                                         |
| Av. pack weight (kg)            | 872                                                                        |
| Packaging                       | All packs are suitable for crane off-load<br>Fork lift off-load on request |

## FURTHER INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cleaning & Maintenance | Cleaning & maintenance details are available on request                                                                                                                                                                                                                                                                                                                 |
| Efflorescence          | Any product containing cement during its early life may exhibit a temporary white discolouration known as efflorescence. This is not a product fault and will gradually disappear with exposure to natural weathering and trafficking                                                                                                                                   |
| Weathering             | It should be appreciated that with all products weathering and site conditions can cause shade variation to appear across the surface of individual units. This does not in any way affect the performance of the units and any such variation will diminish over a period of time as the product matures.                                                              |
| Product Evolution      | The evolution of new product design is continuous and information is subject to change without notice. Customers should check with the supplier to ensure that they have the latest details. Marshalls reserve the right to amend the technical information as deemed necessary and in accordance with the relevant national and international standards without notice |

|            |                                                                                                                                                                         |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contact Us | For technical information on the design, specification and construction when utilising the product, contact the Technical Advisory Services Department on 0370 411 2233 |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



## Tegula 320 x 240 x 80

Date Created: 17/03/21



\*Natural products are manufactured from aggregates sourced locally to the works and contain no pigmentation, therefore colour variation between products from different works is possible.

Marshall's **Tegula Concrete Set Paving** is the original multi-size, lightly weathered paving system. With aesthetics echoing those of natural stone setts, this versatile range can complement both traditional projects or enhance distinctive showpiece schemes. Available in range of popular colours, including the new Charcoal, you can choose from several block sizes to achieve multiple laying patterns and two depths to suit any range of trafficking requirements.

Manufactured in mainland UK, Tegula is ideal for use in rustic, rural developments, and is suitable for any loading application in civil, retail, commercial and residential streetscapes.

Priora permeable options also available

### DESCRIPTION

|                                   |                                                                                |
|-----------------------------------|--------------------------------------------------------------------------------|
| Appearance                        | Solid unit with a distressed surface and integral spacers                      |
| Manufacturing Process             | Semi dry pressed & vibrated concrete                                           |
| Base Raw Material                 | Concrete                                                                       |
| Governing Manufacturing Standards | All data where relevant to be established in accordance with BS EN 1338 : 2003 |
| Type                              | Solid unit with a distressed surface and integral spacers                      |
| CE Marking/DOP                    | <a href="https://www.marshalls.co.uk/dop">https://www.marshalls.co.uk/dop</a>  |
| NBS Specification                 | Q24 10,Q24 110,Q24 112,Q24 113                                                 |

# Tegula 320 x 240 x 80

Date Created: 17/03/21

## PHYSICAL PROPERTIES

|                                    |                                                                                                                                                                                           |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Work Dimensions (mm)               | 320 x 240 x 80                                                                                                                                                                            |
| Nominal Dimensions (mm)            | 320 x 240 x 80                                                                                                                                                                            |
| Tolerances on Work Dimensions (mm) | Length $\pm 2$ mm, width $\pm 2$ mm, thickness $\pm 3$ mm                                                                                                                                 |
| Abrasion Resistance (mm)           | $\leq 23$ mm (Wide Wheel Abrasion Test)                                                                                                                                                   |
| Durability (Freeze-thaw)           | $\leq 1.0$ kg/m <sup>2</sup> as a mean with no individual value $> 1.5$ kg/m <sup>2</sup>                                                                                                 |
| Material Density                   | 2300 kg/m <sup>3</sup> (typically)                                                                                                                                                        |
| Slip/Skid Resistance (polished)    | Mean polished skid resistance value (PSRV) : $> 45$                                                                                                                                       |
| Slip/Skid Resistance (unpolished)  | Mean unpolished skid resistance value (USRV) : $> 45$ .                                                                                                                                   |
| Thermal Conductivity (K value)     | Design data as defined to BS EN 13369 (2013)                                                                                                                                              |
| Tensile Splitting Strength         | Characteristic tensile splitting strength not less than 3.6 MPa. None of the individual results shall be less than 2.9 MPa, nor have a failure load less than 250N/mm of splitting length |

## SPECIFICATION

|                           |                                                                              |
|---------------------------|------------------------------------------------------------------------------|
| Approx unit weight (kg)   | 14.1                                                                         |
| Emission of Asbestos      | No content                                                                   |
| External Fire Performance | Deemed to satisfy when used for roofing. See Commission Decision 2000/553/EC |
| Reaction to fire          | Class A1 when used for internal flooring. Decision 96/603/EC                 |

## SUSTAINABILITY

|                  |                                                                                                           |
|------------------|-----------------------------------------------------------------------------------------------------------|
| Breeam           | These units can achieve an "A" rated system when used in conjunction with the correct sub-base components |
| Carbon Footprint | 22 kg CO <sub>2</sub> m <sup>2</sup>                                                                      |

## APPLICATION

|                        |                                                          |
|------------------------|----------------------------------------------------------|
| Loading Classification | Category 6 - 10 large goods vehicles per week (0.15 msa) |
|------------------------|----------------------------------------------------------|

## SUPPLY

|                             |                                                                                           |
|-----------------------------|-------------------------------------------------------------------------------------------|
| Pack size (m <sup>2</sup> ) | 6.2                                                                                       |
| Units per pack              | 81                                                                                        |
| Av. pack weight (kg)        | 1142                                                                                      |
| Packaging                   | All packs are shrinkwrapped onto pallets for fork off-load or crane off-load if necessary |

## FURTHER INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cleaning & Maintenance | Available on request                                                                                                                                                                                                                                                                                                                                                     |
| Efflorescence          | Any product containing cement during its early life may exhibit a temporary white discolouration known as efflorescence. This is not a product fault and will gradually disappear with exposure to natural weathering and trafficking                                                                                                                                    |
| Weathering             | It should be appreciated that with all products weathering and site conditions can cause shade variation to appear across the surface of individual units. This does not in any way affect the performance of the units and any such variation will diminish over a period of time as the product matures.                                                               |
| Product Evolution      | Marshall's reserve the right to amend the technical information as deemed necessary and in accordance with the relevant national and international standards without notice. The evolution of new product design is continuous and information is subject to change without notice. Customers should check with the supplier to ensure that they have the latest details |
| Contact Us             | For technical information on the design, specification and construction when utilising the product, contact Group Technical Services on 0370 411 2233                                                                                                                                                                                                                    |

## Sheffield Cycle Stand

### BXMW/GS/Sheffield-Stand

The Sheffield Cycle Stand is recommended by the national cycling associations, this best selling tubular cycle stand allows the bike to be secured in a variety of ways.

The Sheffield Cycle Stand is recommended by the national cycling associations, this best selling tubular cycle stand allows the bike to be secured in a variety of ways.

Simple and easy to install this cycle stand is available in a variety of different sizes, fixings and finishings. Thus allowing this best selling cycle stand to complement any external environment, and pre-existing street furniture suite.

This ever popular product is available in a range of different sleek and stylish finishes, including stainless steel and a Duracast™ Polyurethane version, a long lasting environmentally friendly material that is rust proof and can also be painted to a range of colours.



#### Options:

- Available in a range of different sizes, fixings and finishings.

#### Capacity:

- 2 Cycles

#### Standard Single Unit Size:

- Width: 715mm
- Height: 800mm
- Junior stands are 600mm high
- Diameter: 48.3mm
- Recommended spacing between cycle stands: 800mm



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All dimensions are in millimeters, weights in kilograms and capacities in litres, are approximate and do not form any part of the contract. All prices are guide prices only and should be used for estimating purposes only. Broxap Limited reserve the right to change the design, specification or price of any item sold at any time.

All prices exclude VAT and delivery.

**Fixings:**

- Root Fixed
- Baseplate Fixed

**Finishes Available:**

- Galvanised to BS EN ISO 1461:2009
- Galvanised to BS EN ISO 1461:2009 & Polyester Powder Coated
- Stainless Steel Grade 304
- Stainless Steel Grade 316
- Duracast™ Polyurethane version



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