

3—9 GROSVENOR ROAD, WREXHAM

PLANNING REF : WRR PI2014/0436

**DISCHARGE OF CONDITION APPLICATION
FOR CONDITIONS 7 & 8**

**TECHNICAL DATA SHEETS / SPECIFICATIONS OF VARIOUS
PRODUCTS / MATERIALS TO BE USED ON THE ABOVE PROJECT**



1449

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**JOHN MCCALL ARCHITECTS
PROPOSED EXTERNAL MATERIALS /
FINISHES SCHEDULE**



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1449 Grosvenor Road Site, Wrexham LL11 1DB

Proposed External materials / finishes list – John McCall Architects – 13 Mar 17

Red Text - Denotes most recent changes/ omissions/ additions

*All external materials are subject to sign off by planning.

Material	Sample Detail	Manufacturer
External Walls		
Facing Brick		
Red (Min £425/1000 brick)	Quality Red Facing Brick (Leicester Weathered Red 4934 or equiv)	Ibstock or similar
Base	Staffordshire Smooth Red	Ibstock or similar
Mortar	Natural	
Retaining walls (if required)	Staffordshire Smooth Red Or Reclaimed to match	Ibstock or similar
Metal Cladding / feature window surrounds	Standing seam metal cladding –V M Zinc Pigmento Red	V M Zinc
Roofs – New Build		
Main Roofing system – Adhered Single ply roofing membrane with enhanced 25 year product guarantee.	Sarnafil S membrane 1.5min (t.b.c) Lead Grey (9500)	Sarnafil or similar
New Build - Tiled Roofs	Marley Rivendale – Slate effect tile Colour Blue / Black	
Roofs – Existing Buildings		
Tiled Roofs	Slate tiling – Existing tiles and reused reclaimed and matching imported where required.	Welsh Slate spec to match existing – see page XX for details

Low Level Canopies (external access doors in curtain walling)	t.b.c	t.b.c
Balcony Decking	Millboard decking – Lasta grip - coppered Oak	www.millboard.co.uk
Roof Access Safety System	Mansafe System Access ladder + Hoop	t.b.c
Windows / Doors- New Build Staircases / Communal Areas etc inc Communal Entrance Doors (inc AOV'S if required as part of fire report) Residential Windows/ External patio/balcony Doors(unless otherwise noted)	Metal Technology – System 17 curtain walling system Coloured to RAL No. 7015 Rehau Total 70 UPVC windows Coloured to RAL No. 7015	Metal Technology Rehau
Building Features :-		
Windows / Doors- Existing Buildings	Timber conservation Style Sash windows to match existing.	Arden Timber Windows Colour – Dulux Heritage Verditer Green, external & white internal
Service Entrance Doors	Jack Aluminium doors JD47 & JD68 range Coloured to RAL No. 7015	Jack Aluminium
Rainwater goods (New Build) Rainwater goods (Existing Buildings)	Rainwater goods salvaged where possible and made up with matching sections throughout in aluminium sections Colour – Dulux Heritage	

	Verditer Green	
Fascia, Trims,	Matching timber sections Colour – Dulux Heritage Verditer Green	
Vents	Generally brick format and coloured to match External wall material.	
Metal Louvres (plant areas, roof if required)	Powder coated aluminium Coloured to RAL No. 7015	
Canopies	Galv frame with powder coated finish -toughened glass	
Steel Columns	Canopies etc – Painted finish t.b.c	
Balconies (Courtyard Apartments)	S/S handrail / frame with clear Glazed panels. T.b.c	
External Materials – Adoptable Areas – Caxton Place		
Public Footpath / Pavement	Black Tarmac t.b.c ?	Tarmac www.tarmac.co.uk
External Materials (See Dwg) - In Curtilage Areas - See External works drawing See dwg D4599-001A + 002B		
Main carpark access ramp + turning area	Black Tarmac	Tarmac www.tarmac.co.uk 01335 390301
Parking Bays	Tegula Blocks – Pennant Grey 203x 173 x 60 or 80	Tobermore or Similar www.tobermore.co.uk
Kerbs	Country kerb granite to Front – Conc Kerbs to rear	Tobermore or similar www.tobermore.co.uk

Front entrance area / Courtyard	Conservation type textured concrete paving 450mm x 450mm x 50mm	Tobermore or similar www.tobermore.co.uk
Pathways 1	tegular cobbles	Tobermore or Similar www.tobermore.co.uk
Rear Outer path	Mastertint coloured tarmac with edging	
Existing Brick Boundary wall retained/ repaired or replaced with new as required. (As per Dwgs)		
Rear Courtyard control (As per Dwgs)	Automated Steel gates with Galvanised finish-	
Front Control access gates	Automated Steel gates with Galvanised finish-	
Timber Knee rail- (carpark planter areas)	150 x 150 Stained Black – Ebony (high quality solvent-borne Dark timber stain for exterior use.	
Furniture t.b.c	Illuminated Bollards where indicated	
Frontage Bollards	Cold Stream Black steel bollards	
Courtyard Pergola feature	Timber – Stained finish	
Raised planters Courtyard and perimeters	Planters to be formed from stained (ebony) railway sleepers (approx. 1m high)	
Seating	t.b.c	
Lighting- External Feature lighting – Locations t.b.c	Assume outer perimeter and courtyard locations	
Bollard lighting		
Wall mounted lighting		

**ARDEN TIMBER WINDOWS TO FRONT
ELEVATION OF EXISTING BLOCKS 1 & 2**



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The Kinward™ range of sliding sash windows are manufactured using the finest quality timber and fittings including high performance ironmongery. Arden offer a full range of sliding sash windows, single, double or triple glazed sashes, incorporating modern weatherseal technology for ultimate performance.

Key Benefits

- Multiple weatherseal detailing for greater weather performance
- Available with traditional weights and pulleys, spring balances, mock sash or in our concealed range
- U-values (for the whole window) lower than 1.1W/m²k achievable
- 24/28mm double glazed units as standard for improved security, energy efficiency and acoustic performance. Triple, slim heritage and single glazed options available
- Tilt facility option allows cleaning of external panes of sashes combined with tilt restrictors to provide up to 40 degrees of tilt
- Extended liners available as an option for deep reveals
- High quality ironmongery used with a traditional feel
- Available in both FSC® or PEFC softwood and hardwood options
- Full range available certified to PAS 24:2012 Enhanced Security standards with Secured by Design certification available



Dobie Stott Photography/ctd architects

Tilt & Slide, Weights and Pulleys, Concealed Slide and Mock Sash all available



Double tilt facility option for cleaning

More reasons to choose Arden Windows



Debbie Scott Photography Ltd architects

Tailored products and services
All our products can be tailored to site specific requirements and our surveying, delivery and installation services will adapt according to your needs. Whether its one plot, one site or a multi-site contract, our team will deliver what you want, when you want it.

High performance specifications
Thermally efficient glazing, Secured By Design (SBD), ironmongery (to PAS 24:2012) and advanced timber preservation and coatings technology significantly enhance security and durability. By making our products last longer we reduce whole life costs.



Design and quality
Each window system has been specifically designed using our own bespoke profile sections which incorporate a vented drainage channel to remove any excess moisture. The rounded profile shape ensures water is shed quickly to extend coatings life and improve paint adhesion.

Laminated timber is carefully selected and engineered to meet the BS EN942 standard ensuring knots and other defects are minimised. Ironmongery comes with enhanced corrosion resistance.



Arden Windows’ customer relationships engender conviction, passion, trust and mutual respect



Internal frame section – Concealed slider



10 year guarantee on spiral balance and weights and pulley running gear



Traditional Fitch catch option for authentic feel



Sash horns to bottom sash available upon request



Finest cord and weight pulleys for long service life



Complete sliding sash range

Kinward™

The standard features of our Kinward™ sliding sash range include:

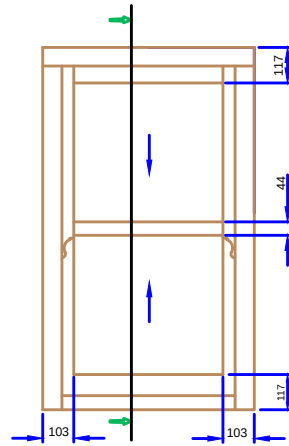
BEADING	Internally beaded as standard. Puttyline profile is used as standard to the external face with Ovolo and Lambs tongue’ mouldings available as options.
CILL OPTIONS	Flush, stub, standard and extended cills are available, where specified.
DRAUGHT PROOFING	All windows are supplied with white draught proofing to painted colours and brown draught proofing to stained windows unless a specific colour (white or brown) is specified using high quality weatherseal technology. All windows have multiple weatherseals to provide the highest protection against wind and rain.
GLAZING	Designed to accommodate a 24/28mm unit, 4mm clear outer panel, 4mm clear inner with a low emissivity coating to one panel to comply with Part L of the Building Regulations. Units are glazed in the factory using kite marked double glazed units. Single, triple and slim heritage glazing available.
IRONMONGERY	White, Black, Gold (Brass effect), Anodised Silver (Satin Chrome) and Chrome ironmongery options are available.
LOCKING	Single sash cam lock (with two used for sash sizes over 800mm). Night ventilation position optional. Fire escape (egress) achievable with larger frame sizes (please enquire). Sliding restrictors available in brass or chrome. Minimum 2 point twin cam security espagnolette locking system on mock sash.
MANUFACTURING STANDARDS	All windows are manufactured to exceed BS644. All joints are dowelled, bonded and pinned with corrugated fasteners.
PAINT FINISH	Factory fully finished as standard (incorporating base, mid and top coat). Colours are available, ask our team for details.
PRESERVATION	All timber products are supplied with factory applied Boron preservative treatment (where required). This provides a 35 year guarantee against rot and fungal attack, lifetime care package is available. As a virtually solvent-free water based preservative system, it is significantly more environmentally friendly than traditional vacuum impregnated solvent based treatments.
TIMBER	Manufactured from either FSC® or PEFC European softwood and/or FSC® or PEFC hardwood timber, in either solid and/or laminated profiles.
TOLERANCE	Arden Windows’ will manufacture products to customers’ specified order size. If required, it is recommended that customers ensure a fitting tolerance is specified at time of order.
VENTILATION	1nr or 2nr trickle ventilation per window located in the frame head. Any frame below 900mm wide can have a maximum 1nr trickle vent. Any frame 900mm and above can have either 1nr or 2nr trickle vents. In areas of mobility cord control vents are available.
WEATHER PERFORMANCE	Windows tested in accordance with PAS 24:2012. Please see our www.ardenwindows.net for up-to-date information.



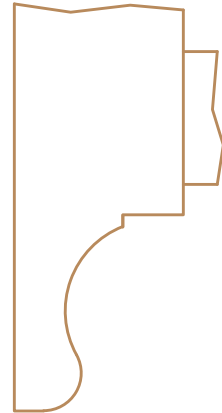
Tailored solutions in timber



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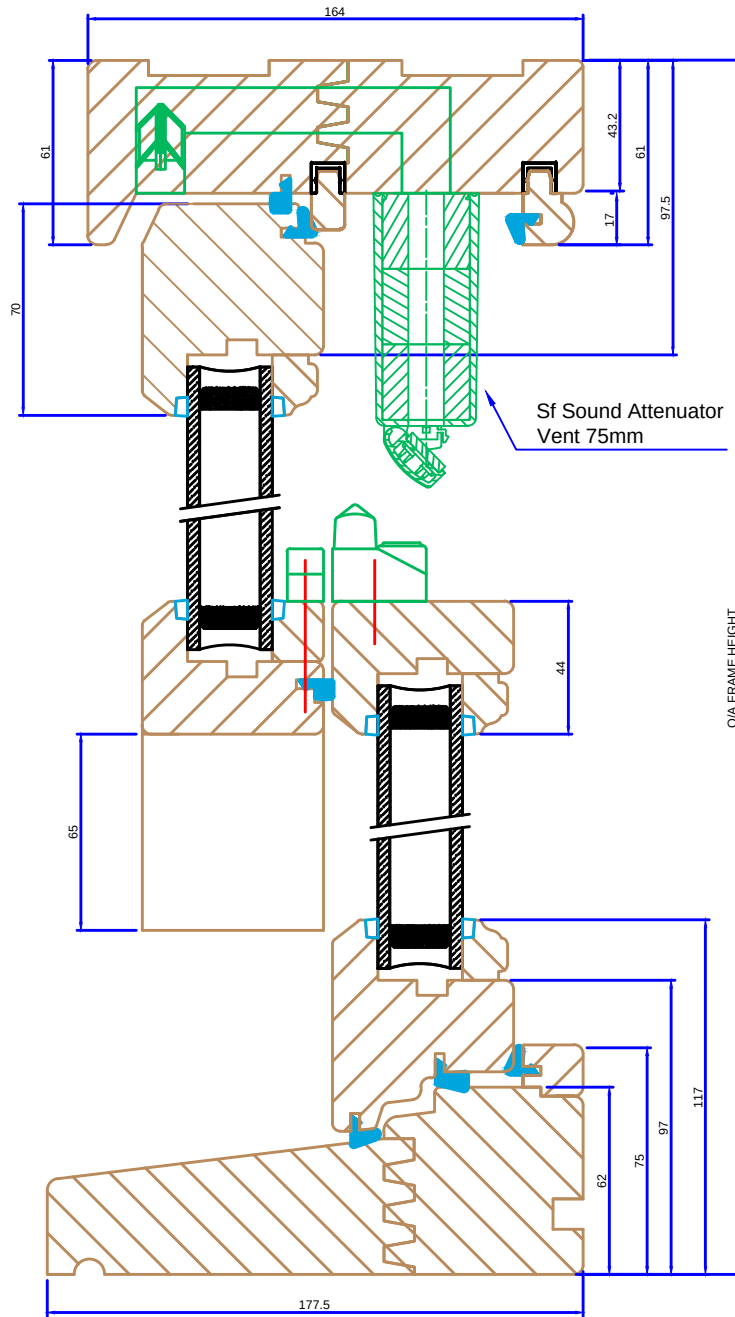


TYPICAL FRONT ELEVATION



HORN PROFILE DETAIL

VERTICAL CROSS SECTION THROUGH WINDOW



DULUX HERITAGE GREEN VERDITER
PAINT FINISH TO TIMBER ARDEN WINDOWS



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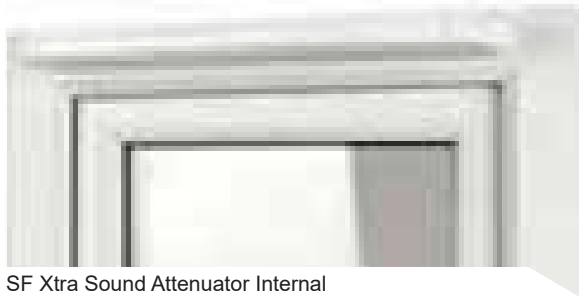
**ARDEN TIMBER WINDOWS ACOUSTIC
TRICKLE VENTS TO FRONT ELEVATION
OF EXISTING BLOCKS 1 & 2**



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SF Xtra Sound Attenuator Vent

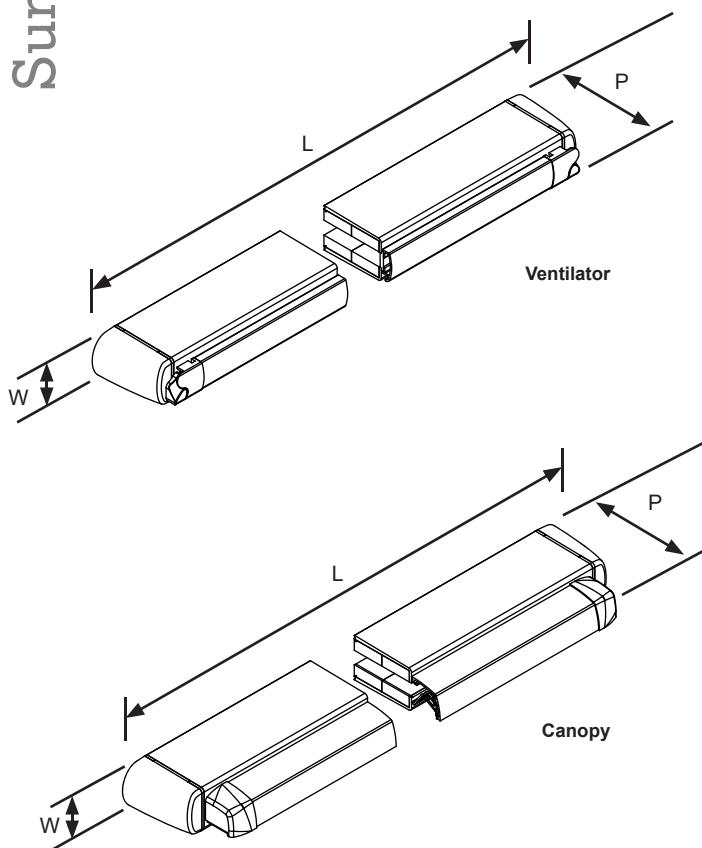
Surface mounted noise reducing ventilator



SF Xtra Sound Attenuator Internal

For use on PVCu, timber or aluminium windows

The SF Xtra Sound Attenuator ventilator is a slot ventilator which provides high levels of sound attenuation compared to similar 'acoustic' products, in a compact size. The SF Xtra Sound Attenuator can be purchased in a number of combinations based on different sizes of inner (ventilator) and outer (canopy). Combinations can be chosen depending on the sound attenuation requirement and can achieve up to $D_{n,e,w} (C;Ctr) = 44 (-2;-3)$ dB when the vent is open. The product is a cost effective method of reducing incoming noise in situations where conventional slot ventilators are unable to assist with acoustic issues. The SF Xtra Sound Attenuator comes fitted with a Titon SF Xtra Ventilator and/or SF Canopy and fits over the standard SF, Trimvent Select or Select Xtra slot size.



SF Xtra Sound Attenuator External

Features and Benefits

- Cost effective sound attenuating ventilator
- Independently tested by Sound Research Laboratories in accordance with BSEN20140-10:1992, ISO140-10:1991
- Vent sizes available: V25, V50, V75 and canopy sizes: C25, C50 and C75
- Can provide up to 44 D_{n,e,w} attenuation, depending on combination
- Suitable for use in domestic or non-domestic installations
- Ideal for retrofit applications, over an existing slot
- Available in a range of combinations to suit different acoustic specifications
- Fits over a standard SF, Trimvent Select or Trimvent Select Xtra slot size
- Supplied with SFX Ventilator and/or SF Canopy fitted
- High performance gasket combined with compression closing action improves sealing in adverse conditions
- Can be mounted to deflect air upwards or downwards
- For use over a 13mm slot
- Special paint finishes available

Details

Product	Product Code	(L) Length	(W) Width	(P) Projection Closed- Open	Free Area (mm ²)	Slot Detail
SF Xtra 2500EA Vent Only	TA5220	434	23	10-24	4438	
SF 418 Canopy Only	TA5005	418	23	27	5114	
SF Xtra Sound Attenuator Vent 25mm	TA5221	464	35	37-51	3470	
SF Sound Attenuator Canopy 25mm	TA5202	464	35	54	3470	
SF Xtra Sound Attenuator Vent 50mm	TA5223	464	35	62-76	3470	
SF Sound Attenuator Canopy 50mm	TA5204	464	35	79	3470	
SF Xtra Sound Attenuator Vent 75mm	TA5225	464	35	87-101	3470	
SF Sound Attenuator Canopy 75mm	TA5206	464	35	104	3470	

	Open	Closed	EA (mm ²)
V75 + C75	Dn,e,w (C;Ctr) = 44 (-2;-3)dB	Dn,e,w (C;Ctr) = 55 (-1;-5)dB	2500
V75 + C50	Dn,e,w (C;Ctr) = 42 (-1;-2)dB	Dn,e,w (C;Ctr) = 55 (-2;-5)dB	2500
V75 + standard canopy	Dn,e,w (C;Ctr) = 40 (-1;-2)dB	Dn,e,w (C;Ctr) = 53 (-1;-4)dB	2500
V50 + C25	Dn,e,w (C;Ctr) = 39 (-1;-2)dB	Dn,e,w (C;Ctr) = 55 (-2;-5)dB	2500
V50 + standard canopy	Dn,e,w (C;Ctr) = 38 (-1;-2)dB	Dn,e,w (C;Ctr) = 55 (-2;-5)dB	2500
V25 + C25	Dn,e,w (C;Ctr) = 36 (0;-2)dB	Dn,e,w (C;Ctr) = 55 (-1;-5)dB	2500
V25 + standard canopy	Dn,e,w (C;Ctr) = 35 (0;-1)dB	Dn,e,w (C;Ctr) = 54 (-1;-4)dB	2500
Standard vent + C25	Dn,e,w (C;Ctr) = 35 (0;-1)dB	Dn,e,w (C;Ctr) = 55 (1;-5)dB	2500
Standard vent + standard SF canopy	Dn,e,w (C;Ctr) = 32 (-1;0)dB	Dn,e,w (C;Ctr) = 52 (-2;-4)dB	2500

Manufactured from

Aluminium 6063A T6, component parts POM

Recommended screws

4mm (No.8) Round Head or equivalent
When fitting to PVCu screw must go through two walls or into reinforcement

Standards

Tested in accordance with BS EN 13141-1:2004 (air flow air leakage and weather tightness)

Finishes

Suffix product code with -20 (white)
Other finishes available dependent on quantity

Performance

(Full details available on request)
Equivalent Area - See above
Free Area - See above

Air Leakage - 0.11m³/hr @ 50Pa
(Vent and Canopy only)
Water Resistance (Pa) - 750Pa
Acoustic Dn,e,w - see above

NB: For optimum performance the ventilator should be installed on a flat surface free from defects, and sealant should be used along all edges to achieve the desired acoustic result.

**UPVC WINDOWS TO REAR OF BLOCKS 1
& 2 AND THE WHOLE OF BLOCK 3 NEW
BUILD**

**THESE ARE IN LINE WITH A PREVIOUSLY
AGREED CHANGE TO ORIGINAL
PLANNING PERMISSION AS DISCUSSED
WITH PLANNING DEPARTMENT 12.07.16**



PENNAP





REHAU TOTAL70

TOTAL CHOICE FOR EVERY TYPE OF HOME





REHAU is the premium worldwide brand supplying polymer-based windows, doors and conservatories to professional fabricators and installers.

Our products are market leaders and are unrivalled in quality, technological innovation and exceptional design.

REHAU TOTAL70 window and door systems are designed to meet the requirements of any type of property.

Our 70mm window and door system offers a range of styles crafted using PVCu which guarantee maximum energy efficiency and performance for your investment.

There are two aesthetic options to choose from in our casement window range. REHAU TOTAL70c is our chamfered system, REHAU TOTAL70s our fully sculptured system.

The range of styles then moves on to REHAU TOTAL70r which is a reversible window system and REHAU TOTAL70mf is our system for multi-fold doors.



REHAU TOTAL70 Chamfered System



REHAU TOTAL70 Sculptured System



REHAU TOTAL70 Reversible System



REHAU TOTAL70 Multi-fold Door System

REHAU TOTAL70

ALL THE BENEFITS WITHOUT COMPROMISE

Smart technology achieves greater energy efficiency for your home. Our multi-chamber design significantly reduces heat loss and keeps out draughts.

Energy efficiency

For excellent thermal properties and to achieve greater energy savings, REHAU TOTAL70 window systems easily achieves an A+ rating, the highest possible Window Energy Rating (WER) for thermal efficiency. The more efficient your home, the more you save. REHAU TOTAL70 windows and doors will comply with and exceed Part L Building Regulations*. For windows this requirement is an overall U-Value of 1.6 W/m²K and for doors 1.8 W/m²K. REHAU TOTAL70 can achieve U-Values of 0.8 W/m²K using triple glazed Argon sealed units. This means that the systems are suitable for Passivhaus standard - currently the most energy efficient specification for a building throughout Europe.

Noise reduction

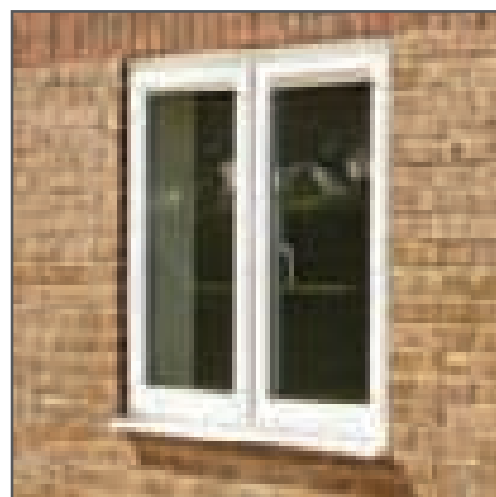
Double & triple glazed sealed units considerably reduce outdoor noise levels, allowing you to relax in the peace and quiet of your home.

Safety and security

REHAU TOTAL70c & REHAU TOTAL70s window and door systems can achieve the British Standard BS7950 and PAS 23/24 security standards.

Low maintenance

Our systems contain a unique compound with a smooth gloss finish – guaranteeing they retain their pristine appearance. It also means they will never warp, rot or need painting.



* Building Regulations October 2012

REHAU TOTAL70

COLOUR AND CHOICE FOR YOUR HOME



PVCu windows and doors don't have to be white - choosing REHAU for your home opens up a world of colour and choice which will complement your style of property perfectly

If you like the look of traditional painted windows but want the benefits of PVCu and double or triple glazing then you'll love REHAU's fantastic range of coloured profiles. We can offer you a choice of two different types of colour applications, laminate foil and Acryl II coating, to suit any age or style of property.

With our laminate PVCu the colour and finish options are vast complementing both the exterior and interior of your home - you can choose one colour and finish for the outside and a totally different one for the inside. Over 20* laminate options include an attractive range of woodgrain effect finishes and strong contemporary and traditional colours such as Chartwell Green, Irish Oak and Anthracite Grey.

All laminate finishes carry extensive guarantees and are well proven for high performance and longevity in all types of weather conditions and all areas, without colour deterioration or fade. The laminates are also durable and can be easily cleaned for long lasting visual appeal.

Our Acryl II coating system offers over 150 RAL colours with a beautifully smooth finish. The finish has an impeccable pedigree having originally been developed many years ago by the REHAU Automotive division to produce colour matched bumpers for prestige cars such as Mercedes, BMW and Jaguar.

Whichever option you choose you can be assured that your windows, doors or conservatory will beautifully enhance your home for years to come.

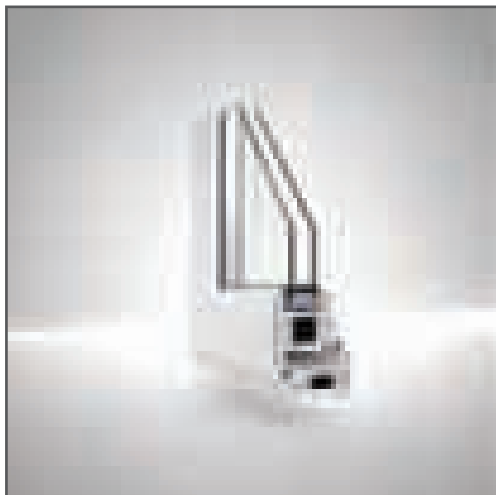


**Some colour options may have extended lead times
- please check with your supplier*



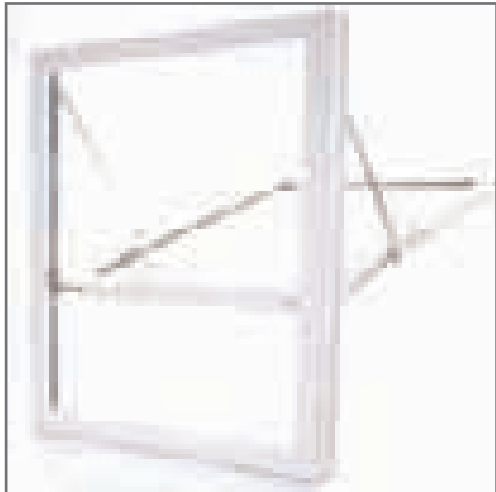
REHAU TOTAL70c is our original 70mm Chamfered window and door system but now with added multi-chambered profiles

This enables maximum thermal efficiency for windows without the need for more expensive glass, making them more cost effective and giving you even more savings on your energy bills. This system is available in French and casement windows, tilt & turn windows, horizontal pivot windows and bay and bow windows. Also, a choice of door styles such as residential, tilt/turn patio doors and French doors. Our chamfered system is simple yet elegant, helping to create beautiful contemporary frames for your home.



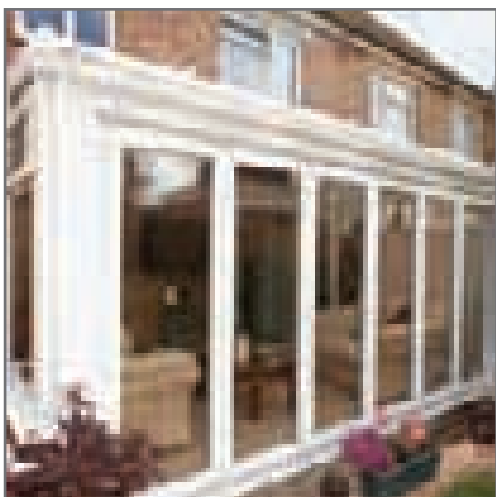
REHAU TOTAL70s has been created with fully Sculptured profiles, offering heightened style to both modern and traditional properties.

This system will appeal to anyone wanting a sympathetic replacement for timber windows with its decorative sculptured edge providing attractive, ornate detail, restoring character to older properties and introducing sought-after features to newer ones. The system is available in a range of window styles including French and casement windows, tilt & turn windows and bay and bow windows. Also, a choice of door styles from residential to tilt/slide patio doors and French doors.



REHAU's TOTAL70R Reversible window system has been designed to ensure a high specification in both quality and performance.

Our new multi-chamber profiles ensure improved thermal performance, with an 'A' window energy rating being easily achievable. Traditionally the reversible window system was developed to allow for easy cleaning especially for windows that were hard to reach on the outside and originally the window was more common in high rise buildings. However, the REHAU TOTAL70R Reversible window is designed with a flush fitting sash and frame for a very contemporary look in any home.



The REHAU TOTAL70MF Multi-Fold door boasts superior design and engineering, achieving outstanding versatility to open up your home.

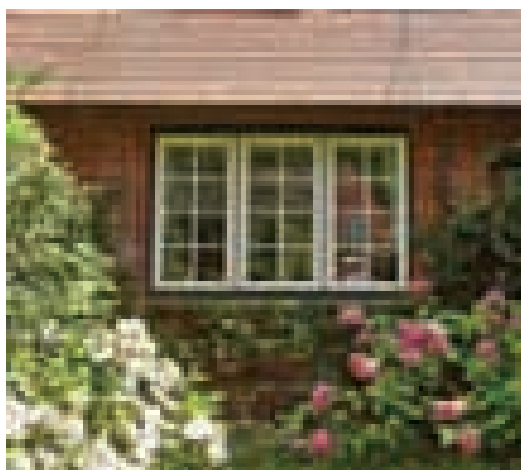
Whether for domestic or commercial applications, the multi-facet panes of the REHAU TOTAL70MF Multi-Fold door fold back to allow the widest aperture, offering unrestricted access. With the REHAU TOTAL70MF Multi-Fold door you can choose the number of panes to suit your needs, dependent on the size of the opening, with up to a maximum of 7 panes. The master door can be located on the right or left side, offering total flexibility.

REHAU TOTAL70

VERSATILITY AND STYLE



REHAU TOTAL70
for
technological
innovation
and
exceptional
design



REHAU TOTAL70

SYSTEM TECHNOLOGY

All products accommodate glazing from 4mm to 44mm in either double or triple glazing and offer an enhanced appearance as well as superior fabrication and performance.

Easy glazing

REHAU's single-leg glazing beads and retention detail guarantees on-site glazing is easy and secure when fitted

Integral gaskets

REHAU TOTAL70c & REHAU TOTAL70s profiles are supplied with gaskets already integrated into the profile.

Improved drainage path

Our improved drainage path allows water to drain more efficiently.

Ancillary profiles

A large range of ancillary profiles including sills, angled head drips, square bay poles, couplers and frame extensions, are compatible across the entire REHAU TOTAL70 range.

Surface finish

REHAU is renowned for its quality, demonstrated with the gloss surface finish, that provides a long-lasting appearance with little or no maintenance.

Multi-chamber profiles

The REHAU TOTAL70 range includes profiles with 3, 5 and 6 chambers for improved thermal efficiency without compromising on structural capability

Hardware fixed into steel

If required, the hardware used on REHAU TOTAL70 profiles can be fixed into the steel reinforcement on both sash and frame. This allows for improved technical performance and superior security levels.

Positive friction-stay location

To reduce the strain on screws and hinges, positive friction-stay location is added for improved performance.

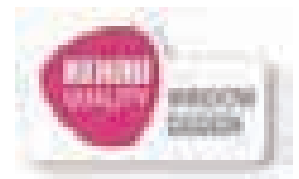
Larger reinforcement chamber

To allow additional strength/rigidity when necessary, a larger reinforcement chamber enables a range of galvanised steels to be inserted for optimum performance

Low threshold

REHAU TOTAL70 doors also offer low thresholds specifically for wheelchair access, complying with Building Regulations.

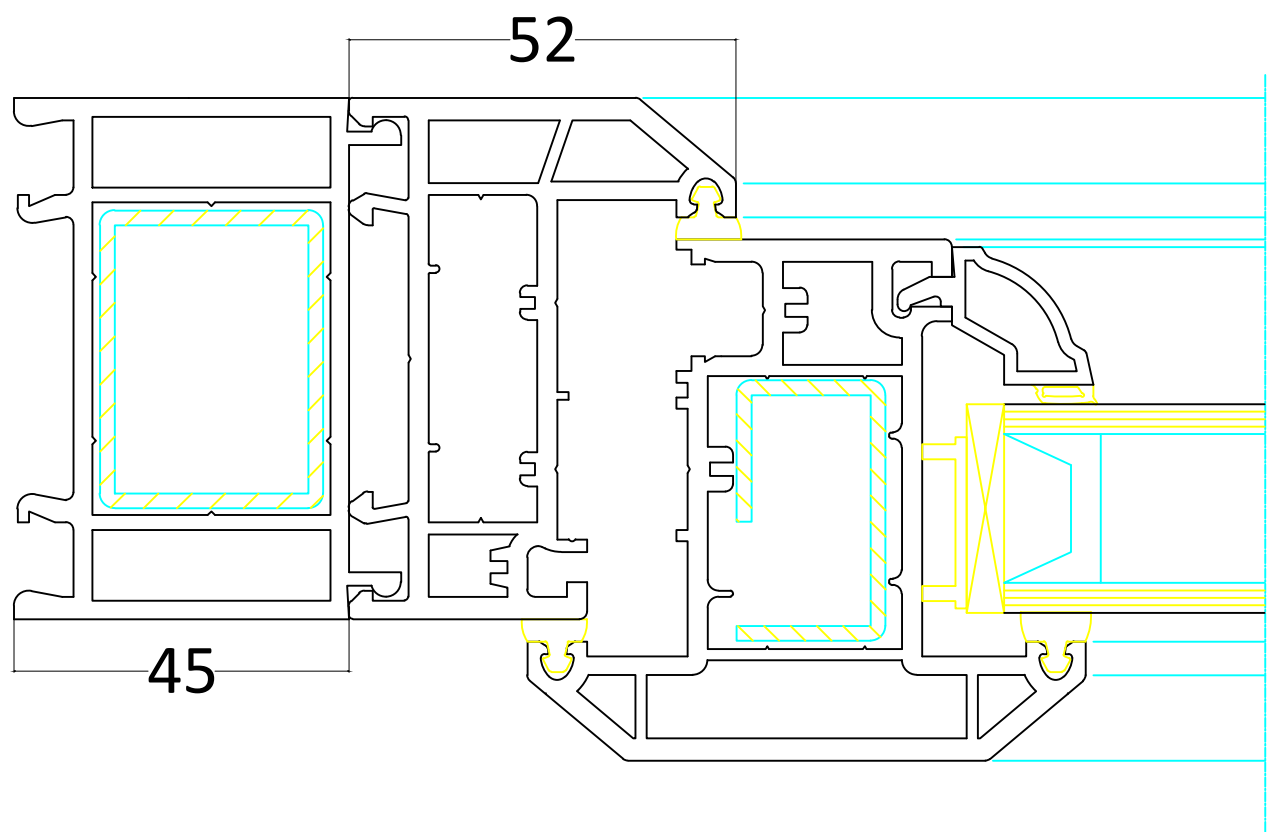
More information for fabricators and installers can be found in the [REHAU TOTAL70 System Description \(706.600EN/625\)](#).



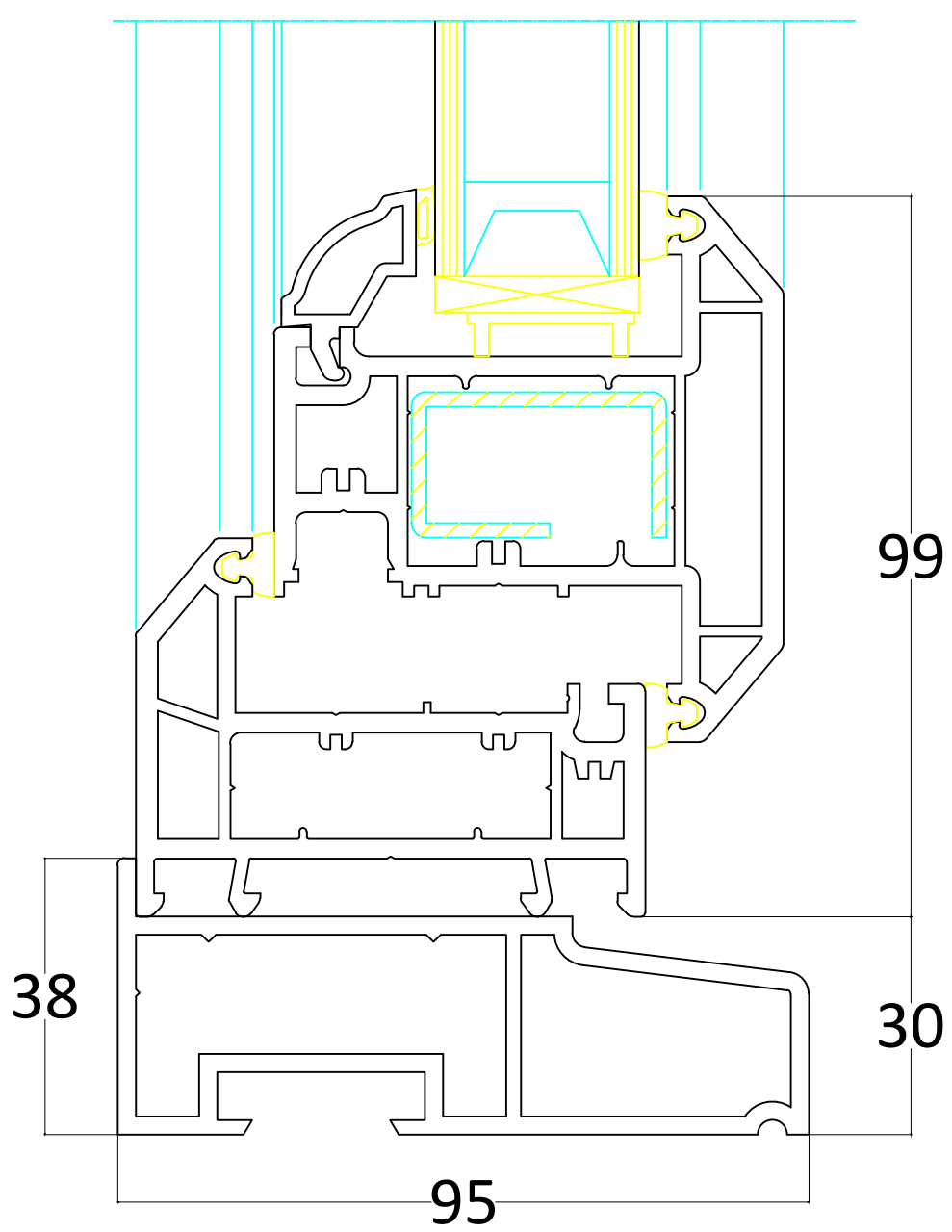
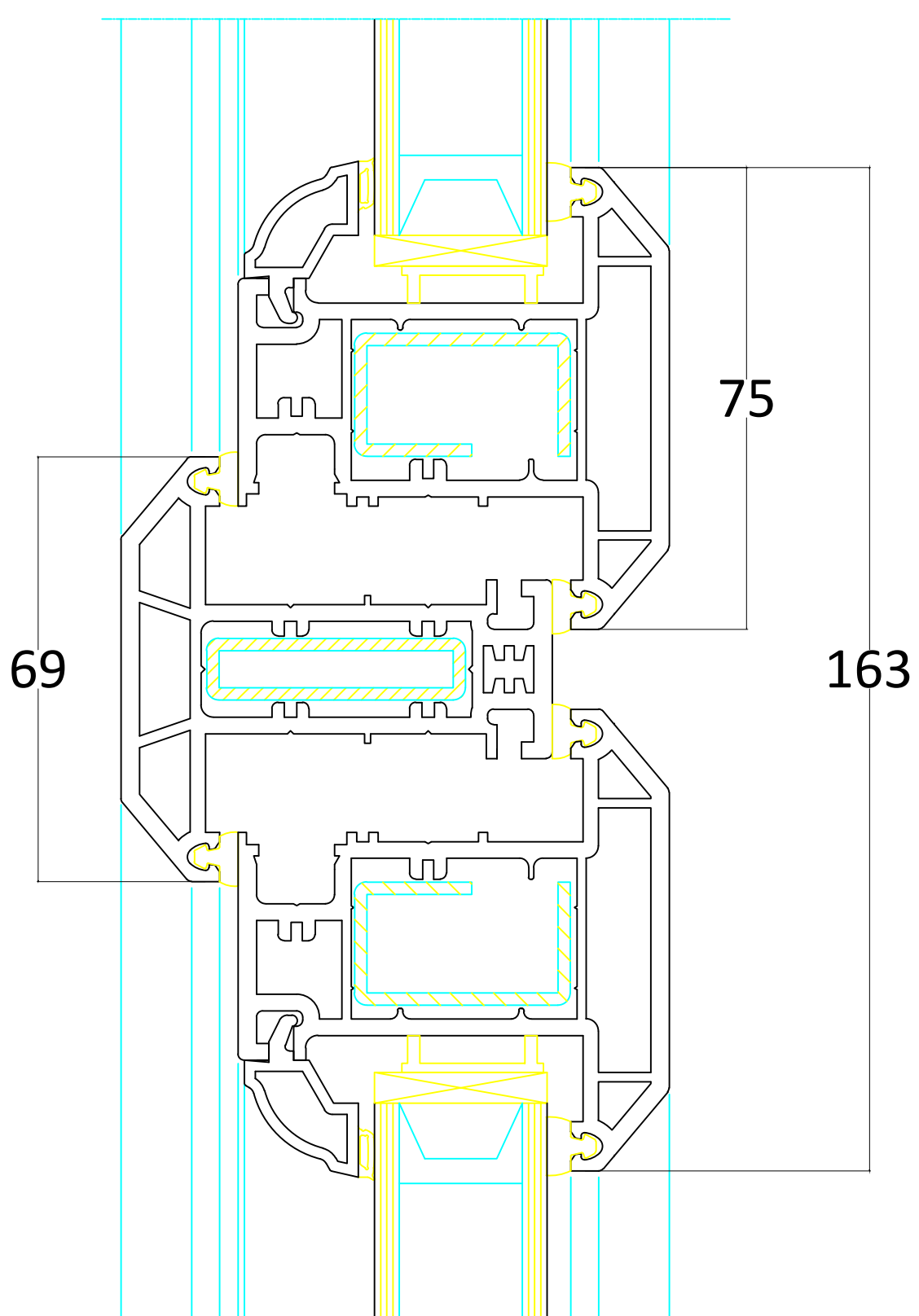
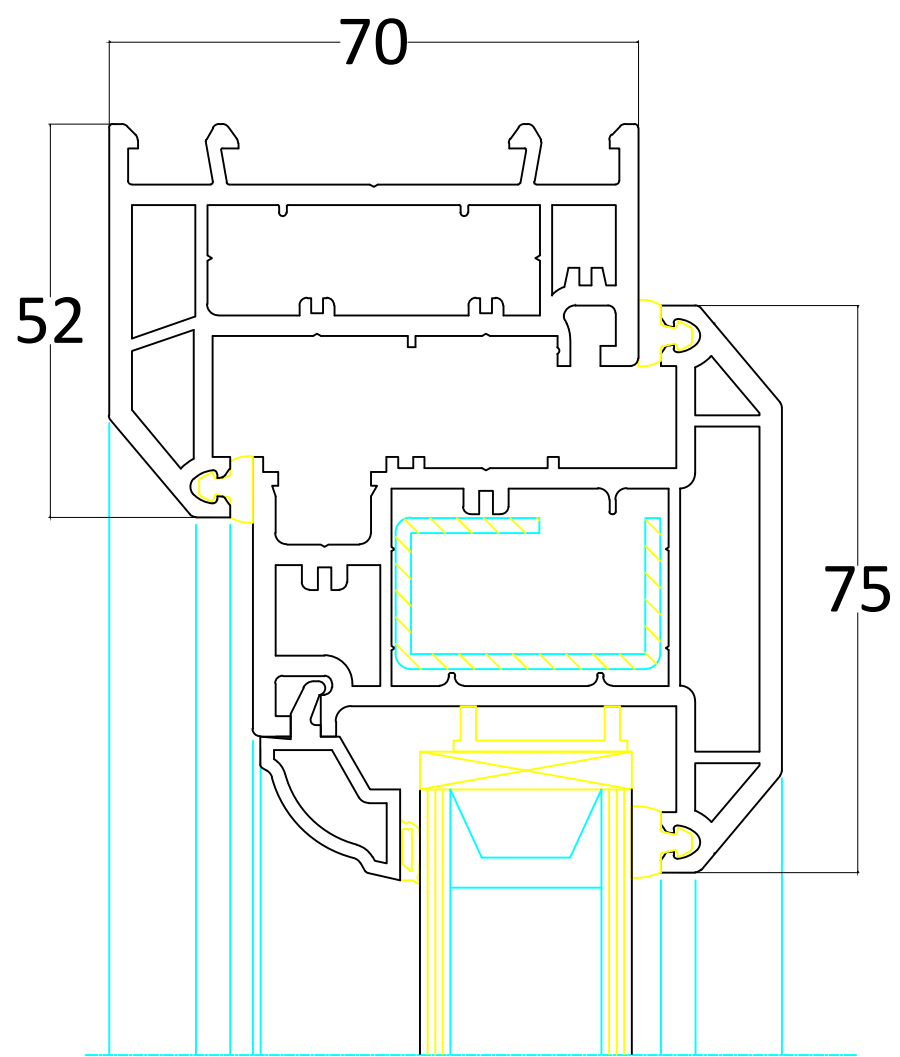
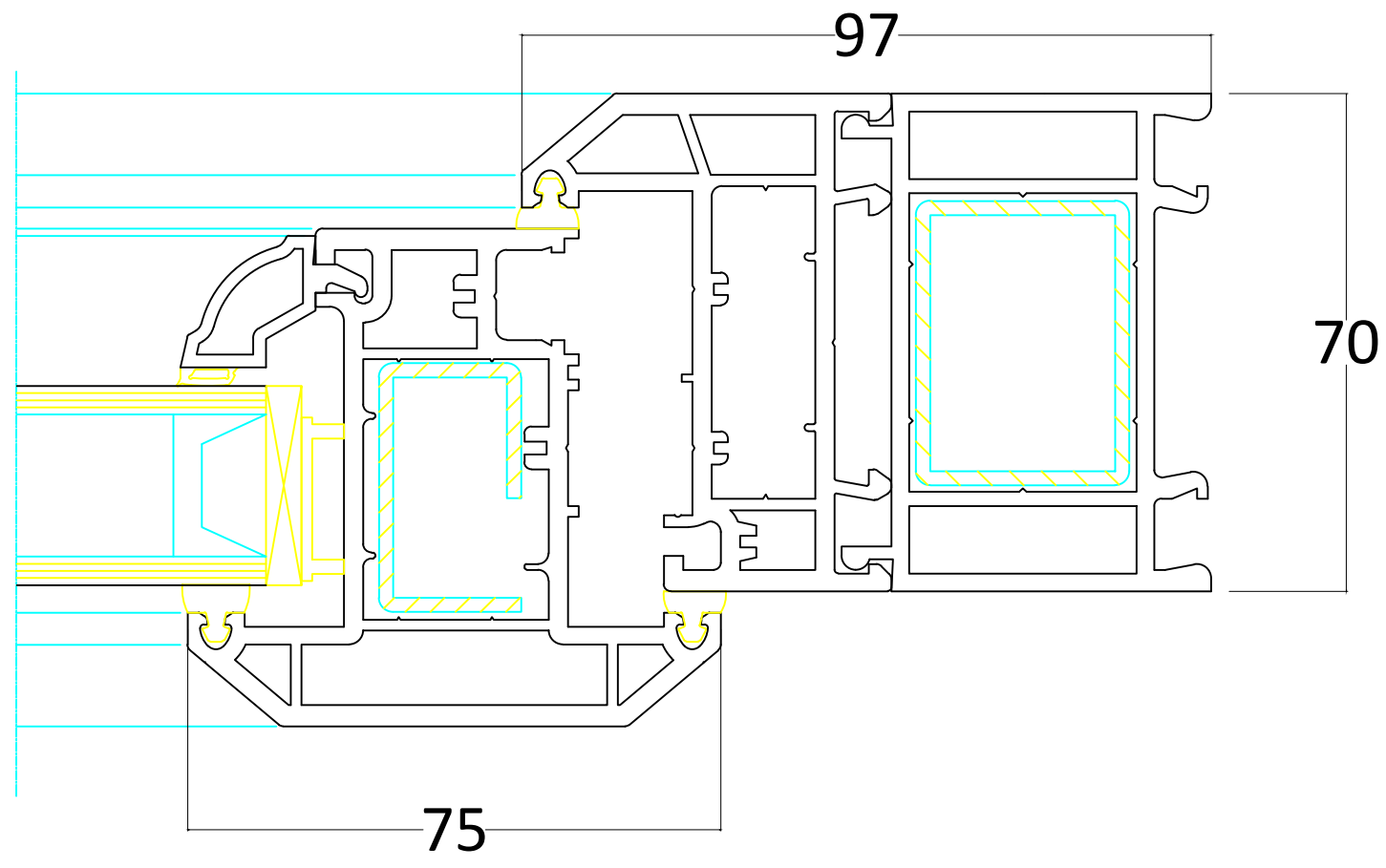
UK & IRELAND SALES OFFICES

London, REHAU Ltd, The Building Centre, 25 Store Street, London WC1E 7BT Phone: 0207 580 6155 Fax: 0207 307 8595 **Slough**, Units 5 J & K, Langley Business Centre, Station Road, Langley, Slough SL3 8DS Phone: 01753 588500 Fax: 01753 588501 **Manchester**, Brinell Drive, Irlam, Manchester M44 5BL Phone: 0161 777 7400 Fax: 0161 777 7401 **Glasgow**, Phoenix House, Phoenix Crescent, Strathclyde Business Park, Bellshill, North Lanarkshire ML4 3NJ Phone: 01698 503700 Fax: 01698 503701 **Dublin**, 9 St. Johns Court, Business Park, Swords Road, Santry, Dublin 9 Phone: 00353 (0)1 8165020 Fax: 00353 (0)1 8165021

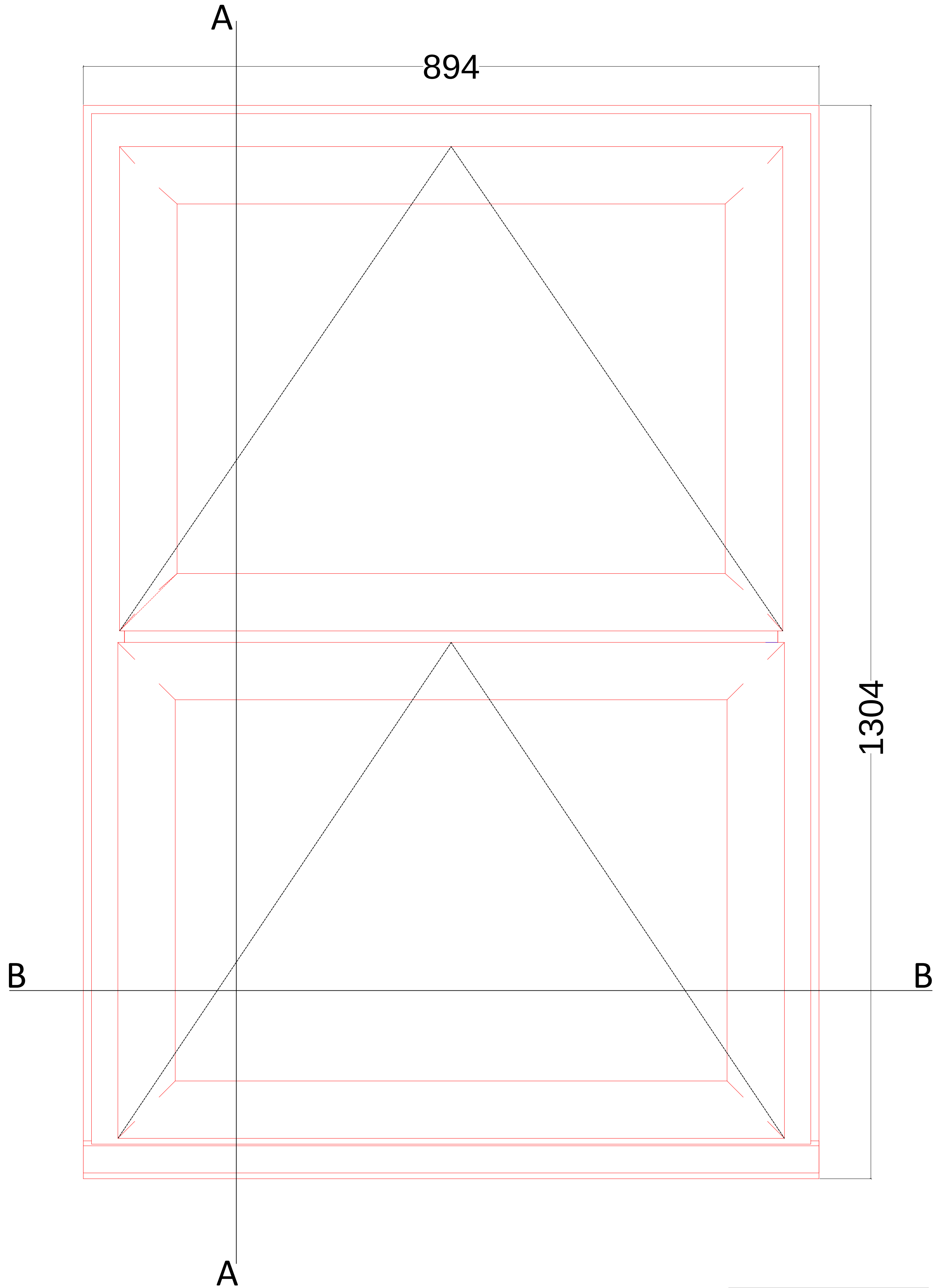
Our verbal and written application engineering advice is based upon experience and the best of our knowledge. However it is to be regarded as non-binding information. Working conditions and use under conditions for which the product was not intended and over which we have no influence exclude any claim resulting from our information. We recommend that a suitable check is made as to whether the REHAU product is suitable for the envisaged purpose. Application, use and processing of the products is carried out beyond the scope of our control and are therefore carried out exclusively at your own responsibility. If liability should still apply, then this is restricted, in the case of all damage, to the value of the goods supplied by us and used by you. Our warranty applies to the consistent quality of our products as per our specification and in accordance with our general terms and conditions of delivery and payment. This document is protected by copyright. All rights based on this are reserved. No part of this publication may be translated, reproduced or transmitted in any form or by any similar means, electronic or mechanical, photocopying, recording or otherwise, or stored in a data retrieval system.

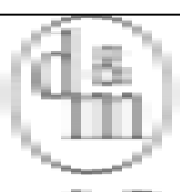


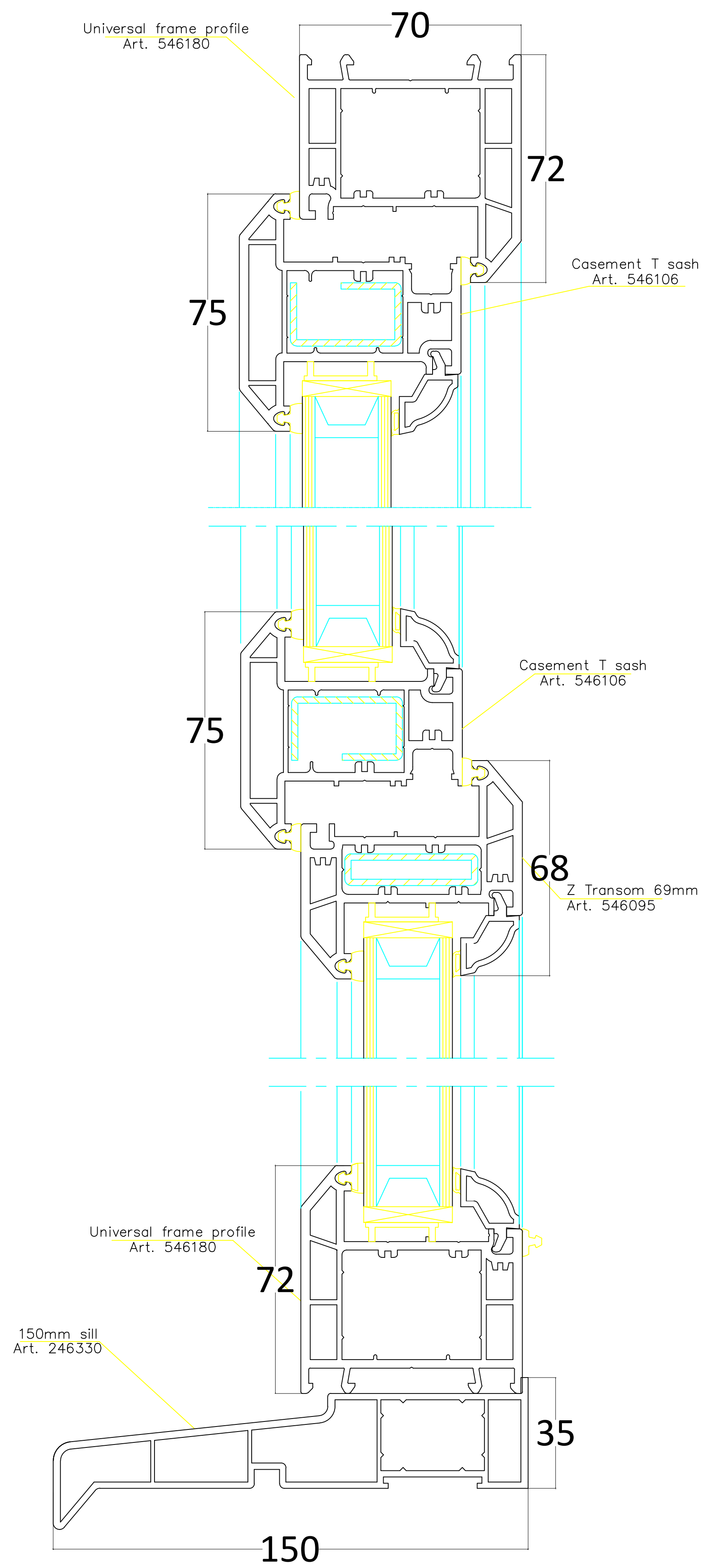
Section B-B



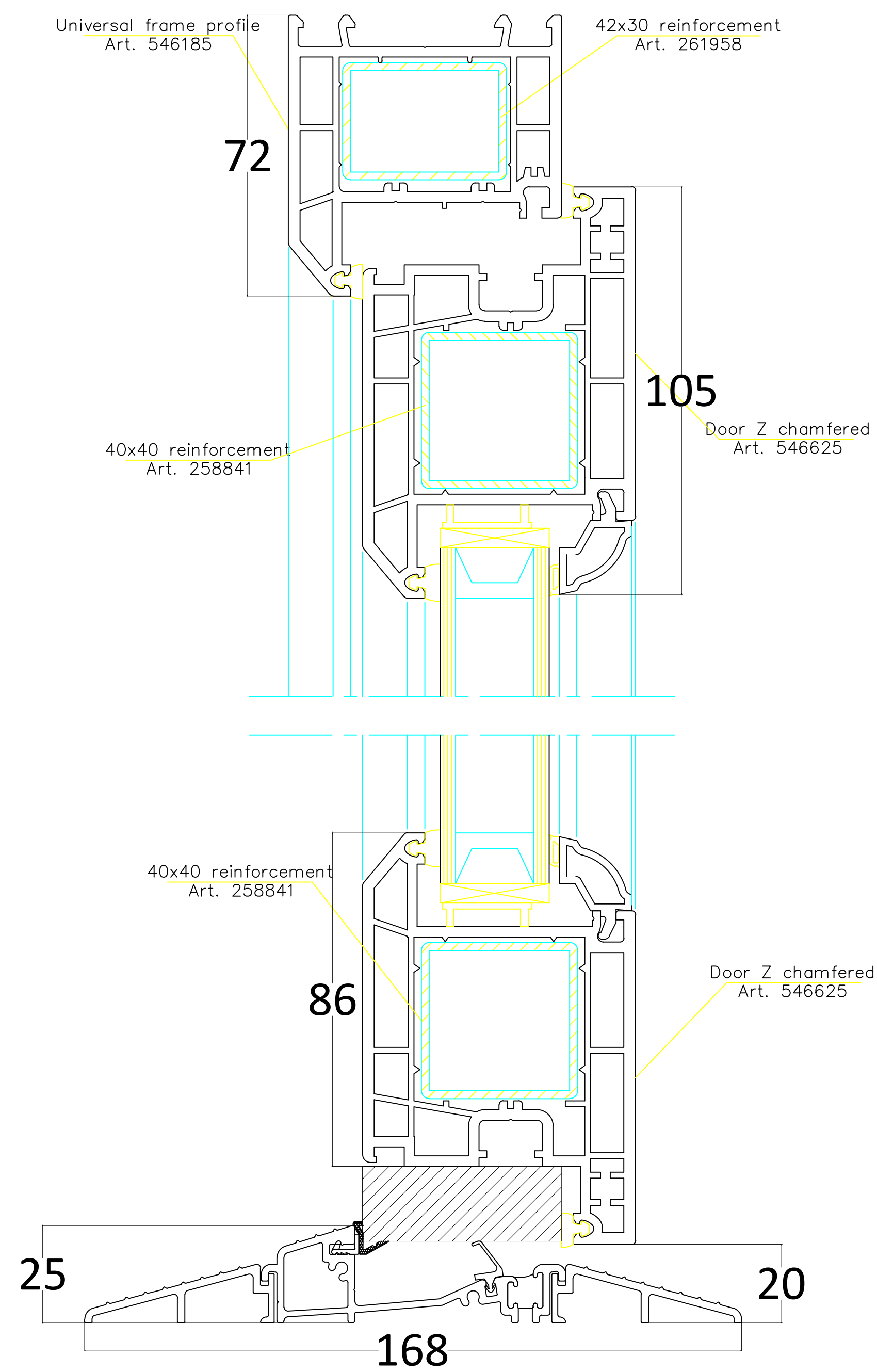
Section A-A



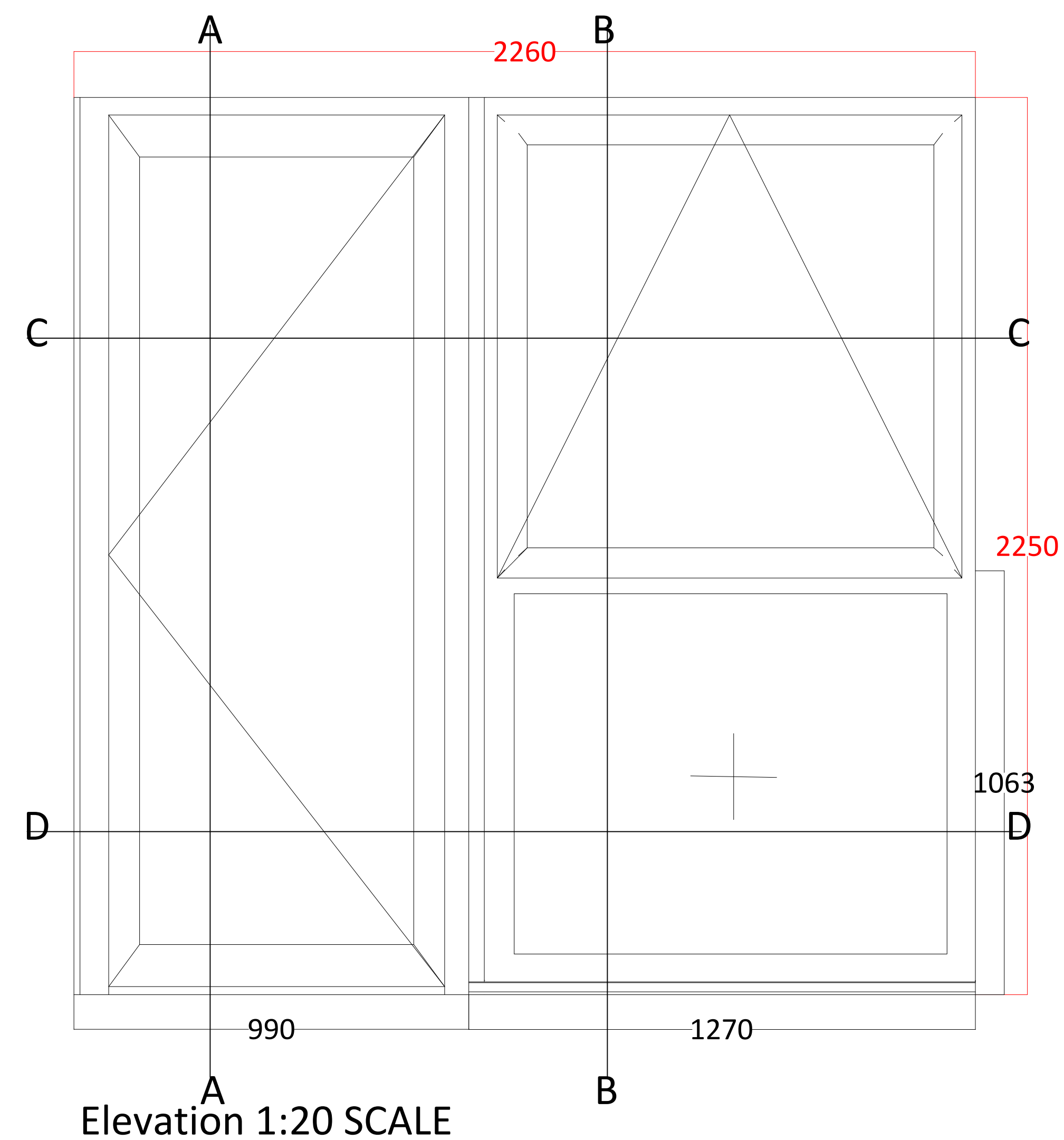
 D&M Windows & Doors Ltd		
D&M WINDOWS AND DOORS LTD EARL MILL BUSINESS CENTRE DOWRY STREET OLDHAM OL8 2PF 0161 785 4663 www.dandmwindowsanddoors.co.uk		
REVISION:	DETAILS:	DATE:
PROJECT: Grosvenor Road		
DRAWING TITLE: Section & Elevation window		
SCALE: NTS	DRAWN DATE: 23/08/16	
DRAWING NUMBER: **** - ###	REVISION: -	



Section B-B
1:1 SCALE

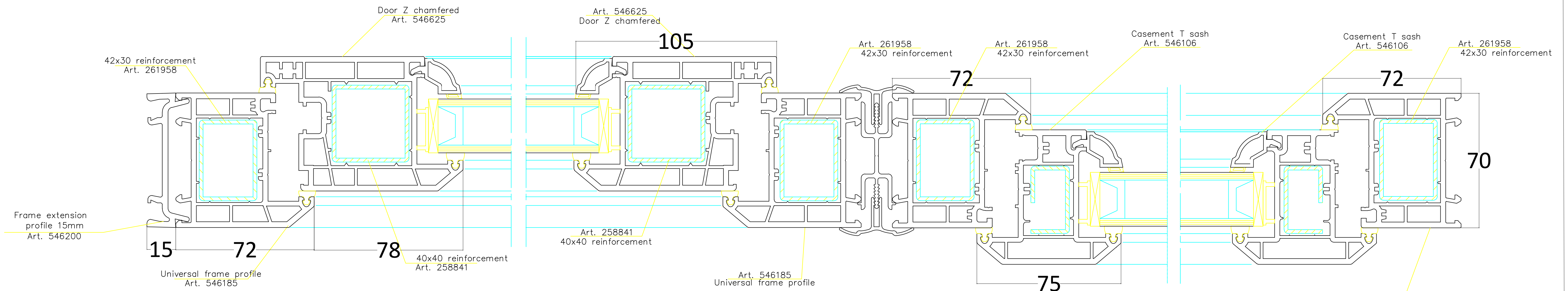


Section A-A
1:1 SCALE

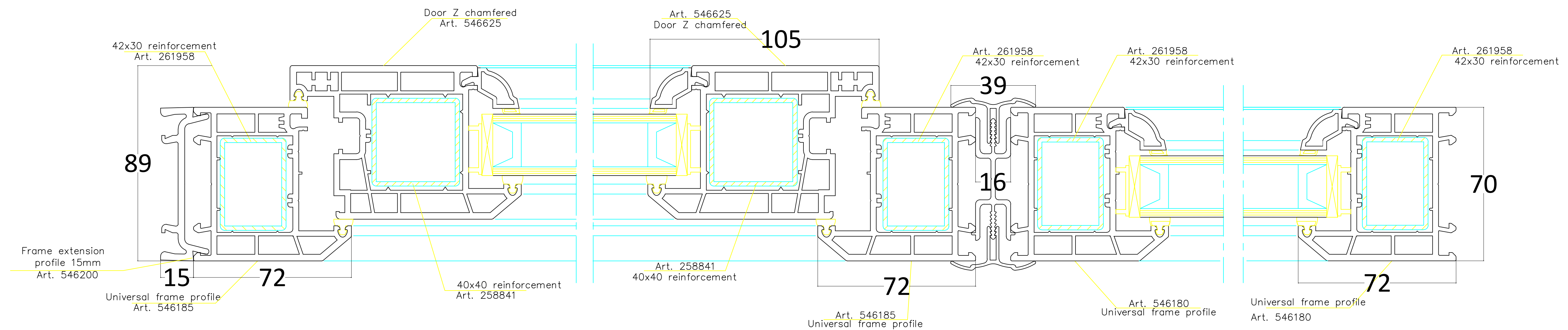


Elevation 1:20 SCALE

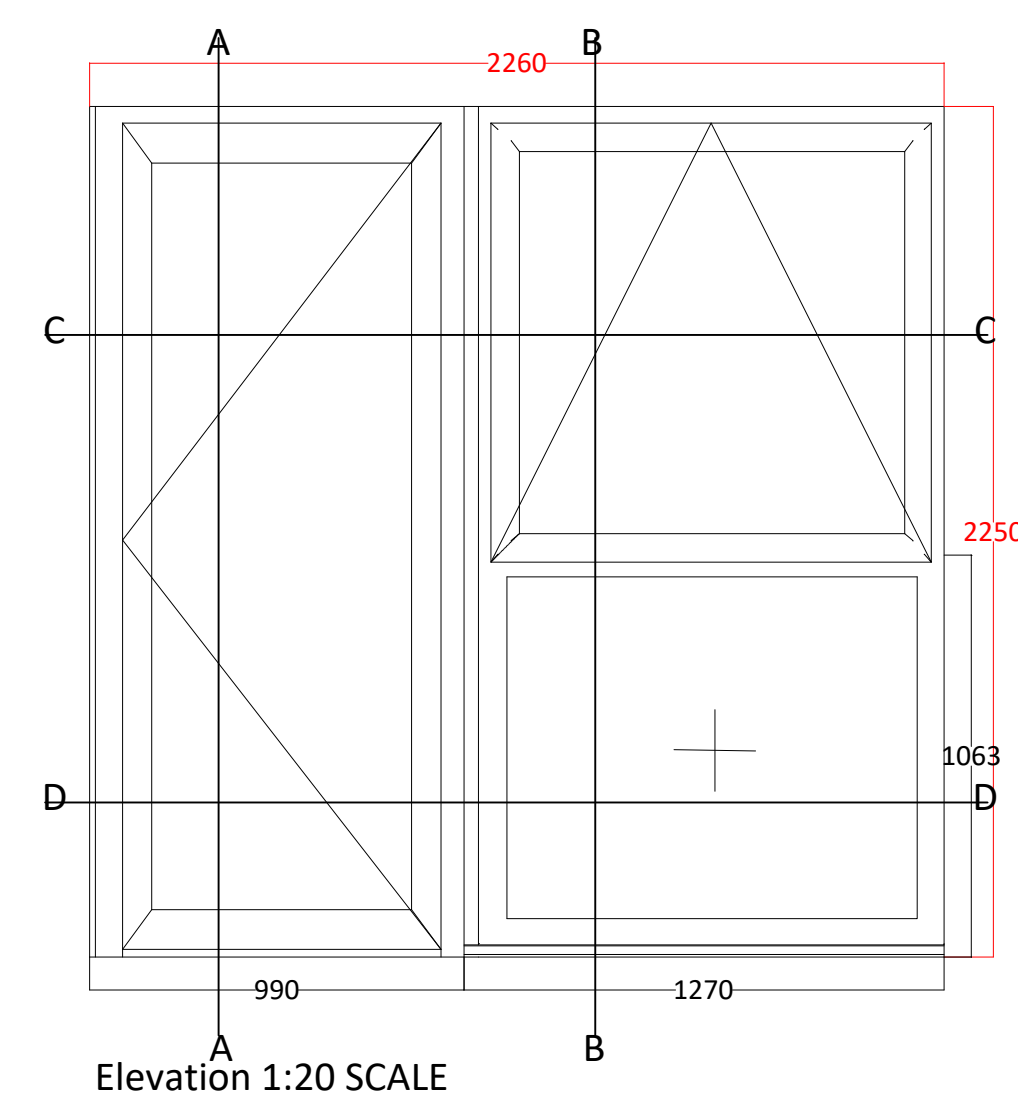
 Windows & Doors Ltd		
D&M WINDOWS AND DOORS LTD EARL MILL BUSINESS CENTRE DOWRY STREET OLDHAM OL8 2PF 0161 785 4663 www.dandmwindowsanddoors.co.uk		
REVISION:	DETAILS:	DATE:
PROJECT: Grosvenor Road		
DRAWING TITLE: Block 1 Door & Side panel - Living Accommodation		
SCALE: 1:1 & 1:10 @ A1	DRAWN DATE: 11/01/17	
DRAWING NUMBER: 19094 - 003	REVISION: -	



Section C-C
1:1 SCALE



Section D-D
1:1 SCALE





Windows & Doors Ltd

D&M WINDOWS AND DOORS LTD
EARL MILL BUSINESS CENTRE
DOWRY STREET OLDHAM
OL8 2PF
0161 785 4663
www.dandmwindowsanddoors.co.uk

REVISION:	DETAILS:	DATE:
PROJECT: Grosvenor Road		
DRAWING TITLE: Block 3 Door & Side panel - Living Accommodation		
SCALE: 1:1 & 1:20 @ A1	DRAWN DATE: 11/01/17	
DRAWING NUMBER: 19094 - 002	REVISION: -	

**ALUMINIUM CURTAIN WALLING SYSTEM
TO NEW BUILD CENTRAL COMMUNAL
SPACE—FRONT & REAR ELEVATIONS**



1449

System 17

High Rise Curtain Walling

Metal Technology, an acknowledged leader in window and door systems has designed System 17 Curtain Walling for high rise applications. Its attractive and clean lines will enhance all types of office and commercial façades, with the added benefit of simple fabrication.



Specification Overview

Introduction

This system is designed for use in multi-storey and roof glazing applications and is capable of accommodating a variety of glazing, panel and opening options. As with all curtain walling systems, intermediate tie backs to the structure may be required subject to site conditions. The basic suite is comprised of structural profiles, spigots, pressure plates and thermal isolators. A wide range of caps allows the designer to select from a variety of aesthetic solutions. Alternative silicone pointed and frameless vent options are available using System 17 Latitude, SSB and SP. A further unitised modular option is available using System 17 Cassette. Various other bespoke profiles can be produced allowing architects to achieve flexible designs. Glazing options are available for a variety of unit thicknesses. As with all other Metal Technology products, manufacturing is to exacting standards giving economy with required strength, and many years of aesthetic, trouble-free operation.

Thermal Performance

Metal Technology System 17 Curtain Walling in conjunction with the correct glass specification, is designed to aid compliance with the latest thermal requirements of the current building regulations.

Scope

This specification defines materials, construction and finishes for curtain walling.

Materials

Aluminium profiles are extruded from aluminium alloy 6060T6, T5 or T4 complying with the recommendations of BS EN 12020-2/BS EN 755-Parts 1 to 9

Finishes

The range of sections can be provided in either of the following ranges of finishes:

1. Anodised to BS EN 12373-1 or BS 3987
2. Powder organic coated to BS 6496 or BS EN 12206-1

Where required, a different colour/finish can be provided internally and externally.

Construction

Mullions are square cut and jointed using specially designed jointing spigots. Transoms have notched ends to ensure an easily weather-proofed joint can be provided between mullion and transom. The system is mullion drained and provision is made to drain water out of the mullion at regular intervals.

The system offers the facility to produce screens façetted on plan. Gaskets provide the facility of façetting up to $\pm 5^\circ$. When combined with the adaptor profiles and pressure caps any angle from 90° to 180° can be achieved.

Metal Technology do not recommend façetting curtain walling screens when incorporating intermediate mullion expansion joints. To facilitate more efficient fabrication of the system Metal Technology can supply punch tooling and jigs to ensure the accurate and efficient preparation of mullions and transoms. Metal Technology recommend that A2 or A4 Austenitic (300 series/class 70) stainless steel fixing screws are used in the assembly of their products.

Installation

The Metal Technology High Rise Curtain Wall system is designed as a 'Stick' built system, therefore mullions and transoms are transported to site as prepared components and the grid work is assembled onto the building in stick form.

Extruded profiles for manufacturing adjustable structural brackets capable of accommodating site tolerance, thermal and structural movement are available. These allow the curtain walling to be fixed to the structure easily and securely so that all loads are transferred back to the building's main structural form.

Expansion joints are allowed on every floor or every other floor to accommodate any building movement.

Glazing

Glass is set against extruded gaskets internally which are fitted into gasket grooves in the mullions and transoms. Special care has been taken to design high performance gaskets which will ensure the long term weather-tightness of the system. Internal gaskets have pre-formed vulcanised corner pieces to aid continuity of the internal seal.

Horizontal and vertical unit edges are then retained using pressure plates and gaskets screw fixed into the structural members. Cover caps are applied to conceal the pressure plate fixings.

Curved Sections

In accordance with Metal Technology's policy of offering the maximum flexibility to the designer, Metal Technology have special facilities available to enable profile to be supplied curved.

Requirements for curved sections should be discussed with Metal Technology at an early stage in the project.

Opening Vents

Details and specifications for the opening vents can be found in the Metal Technology Thermally Enhanced and Window manuals. For frameless vents refer to System 17 Latitude manual.

Performance

The curtain walling has been impact tested to BS EN 14019 and tested for weather tightness to EN 13050 and in accordance with the CWCT dynamic test for curtain walling and achieved the following results:

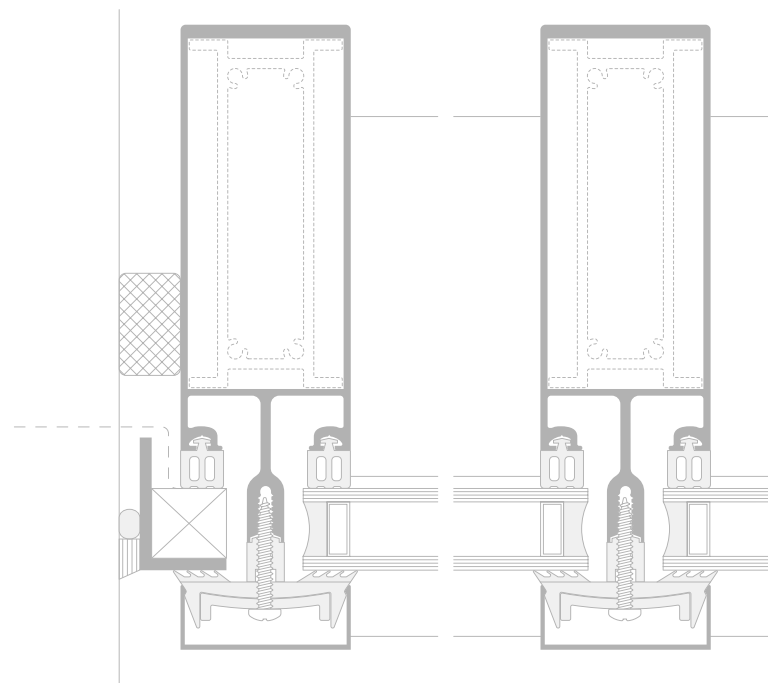
Air permeability -	600 Pa
Water tightness -	600 Pa
Wind resistance -	2400 Pa
Dynamic water tightness -	600 Pa
Wind load (safety) -	3600 Pa

Full test report details are available on request.

These levels of performance should be sufficient for any location within the UK and Ireland. For further information on testing and performance contact Metal Technology's Technical Department. Where overall screen height exceeds 20 storeys or screen requirements differ from those stated in this literature refer to Metal Technology's Technical Department.

Development

Our policy is to continually research the market for new and improved products. We must therefore retain the right to amend specifications without prior notice. It is recognised at Metal Technology that in some instances special sections may be required for particular projects. When this occurs it may be possible to produce special sections subject to there being sufficient quantity and adequate time. These requirements should be discussed with Metal Technology.



Metal Technology Limited
Steeple Road Industrial Estate
Steeple Road | Antrim
Northern Ireland | BT41 1AB

Telephone +44 (0)28 9448 7777
sales@metaltechnology.com
metaltechnology.com

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JACK ALUMINIUM DOORS TO NEW BUILD



1449



Commercial Door and Framing



- ✓ Exceeds Current Industry Standards
- ✓ Pass PAS23 and PAS24 Security Tests
- ✓ Versatile Design
- ✓ User Friendly Construction
- ✓ Waste Reduction



JD47 and TD68 Ranges

JD47 Tried and Tested

TD68 Thermally Improved



JD 47 Commercial Door and Framing System

As an industry leader in commercial doors and frames, JCI has been a pioneer in the development of the JD 47 Commercial Door and Framing System.

Designed for high traffic areas, the JD 47 Commercial Door and Framing System is a true commercial door system.

With its heavy-duty construction, the JD 47 Commercial Door and Framing System is built to last.

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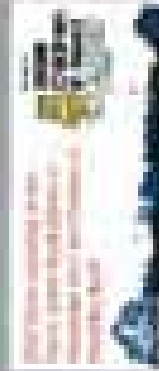
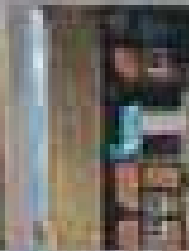
Designed for high traffic areas, the JD 47 Commercial Door and Framing System is a true commercial door system.

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TD38 Commercial Door and Framing System Thermally Improved

As an industry leader in commercial doors and frames, JCI has been a pioneer in the development of the TD38 Commercial Door and Framing System.

Designed for high traffic areas, the TD38 Commercial Door and Framing System is a true commercial door system.

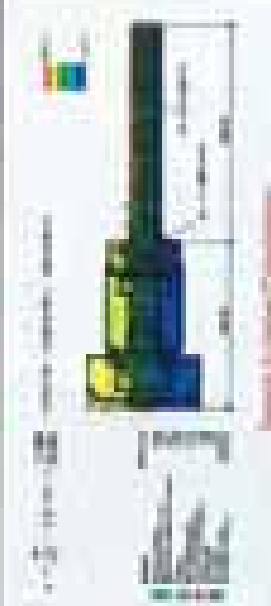
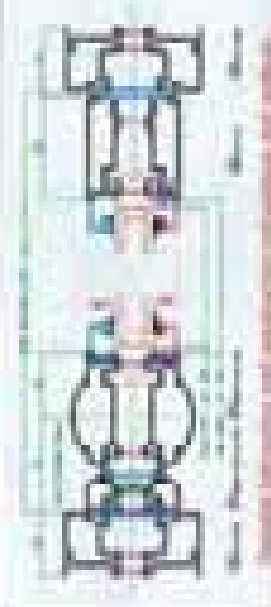
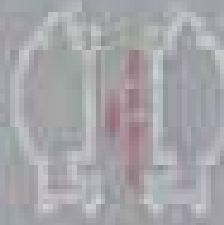
With its heavy-duty construction, the TD38 Commercial Door and Framing System is built to last.

Designed for high traffic areas, the TD38 Commercial Door and Framing System is a true commercial door system.

With its heavy-duty construction, the TD38 Commercial Door and Framing System is built to last.

Designed for high traffic areas, the TD38 Commercial Door and Framing System is a true commercial door system.

With its heavy-duty construction, the TD38 Commercial Door and Framing System is built to last.





Jack Aluminium Systems Ltd commenced trading in 2007.

The company was created to supply an excellent service to its customers so as to facilitate growth for its customers and consequently growth for Jack Aluminium.

This growth would be in a chosen range of products which would steadily grow as the company grew. Jack Aluminium offers commercial doors and framing in standard aluminium (the J147 range) and a thermally improved commercial door and framing system, namely the J148 hot range.

Jack Aluminium also offer low rise curtain walling, and aluminium window range, awnings and glass inserts. French polishing is another product they market.

Jack positioned themselves on the site of SP and PC Powder Coaters who are a Qualitest approved painter. Offering an excellent painted product formed part of Jack Aluminium's strategic intent in providing a service to its customers.

Jack is not driven by a desire to be the biggest but by a desire to be the best in its chosen markets. If Jack can achieve this, then they will maintain a reasonable growth curve. In spite of the troubled market conditions Jack has grown steadily over the past five years.

www.jackaluminium.co.uk

**WELSH SLATE TO THE EXISTING ROOF
OF BLOCKS 1 & 2**



1449

Material Safety Data Sheet

Product Name: Roofing and Architectural Slate Products	
1. <u>Product and company identification</u>	
Product Name	: Roofing and Architectural Slate Products
Product type and use	: All types used for a wide range of construction and civil engineering applications.
Address and telephone number	: Welsh Slate Ltd Penrhyn Quarry Bethesda, Nr Bangor, Gwynedd, LL57 4YG
	: +44 (0) 01248 600 656
	: +44 (0) 01248 601 171 (Fax)
2. <u>Composition/Information on Ingredients</u>	
	: Slate is a metamorphic rock. The composition consists of various combinations of minerals including quartz. (typical concentration < 25% crystalline silica).
3. <u>Hazard Identification</u>	
Main Risks	: May cause a long term health hazard if respirable dust produced from working with slate is inhaled in excessive quantities over a long period of time (years)
Inhalation	: If any respirable dust – produced whilst working the slate, is inhaled in excessive quantities over a long period (years), it may create a long-term health hazard.
Skin Contact	: May cause skin irritation e.g. redness, eczema Can cause cuts and abrasions
Contact with eyes	: May cause eye irritation
Ingestion	: May cause irritation if swallowed
Environmental risks	: May cause contamination if slate fines are allowed to enter the local water course.
4. <u>First Aid Measures</u>	
Inhalation	: Not applicable
Skin Contact	: Wash skin with water. For cuts and abrasions; clean with water and apply sterile dressing if required.
Contact with eyes	: Wash out with clean water, seek medical attention if required.
Ingestion	: wash out mouth with water & seek medical attention if required.
5. <u>Fire-Fighting Measures</u>	
Extinguishing Media	: Not applicable
Protective Equipment	: Not applicable
Special Hazards	: Not applicable

Material Safety Data Sheet

Note	: Slate is non combustible/flammable
6. <u>Accidental Release Measures</u>	
Personal precautions	: Use appropriate protective clothing (See section 8)
Environmental precautions	: Do not let slate fines enter the local water course, any run off should be contained
Method of cleaning up	
-on ground	: Dowse with water to reduce respirable dust; however, ensure environmental precautions are implemented.
-in water	: Inform the appropriate local authority
7. <u>Handling and Storage</u>	
Storage Conditions	: Not applicable
Storage Stability	: Not applicable
Note	: There are no special measures/conditions
8. <u>Exposure controls/personal protection</u>	
Engineering measures to reduce Exposure	: When working slate e.g. dry drilling, cutting etc, the working area and methods should be designed to incorporate a Local Exhaust Ventilation (LEV) system
Personal protective equipment	
-Inhalation	: Respiratory protection should be suitable for hazardous dusts in accordance with HSE publication HS(G)53.
-Skin	: Protective gloves to BS EN 420 should be worn.
-Eye protection	: Eye protection should be dust tight type to BS EN 166
WEL	: Respirable crystalline silica (RCS) has a Maximum Exposure Limit of 0.1mg/ m ³ per 8-hour Time Weighted Average. All dusts have a Respirable Occupational Exposure Standard of 4mg/m ³ and an Inhalable Occupational Exposure Standard of 10mg/ m ³ 8 hour Time Weighted Average.
9. <u>Physical and chemical properties</u>	
State	: Solid
Colour	: Heather / Blue Grey
Odour	: None
Ph	:
Boiling temperature (°C)	: N/A
Melting/decomposition temp (°C)	: N/A
Density (kg/m³)	: 2.8kg/m ³ (Heather) and 2.7kg/m ³ (Blue Grey)
Solubility in water (weight-%)	: Non-soluble
Solubility in organic solvents	: Non-soluble

Material Safety Data Sheet

10. <u>Stability and reactivity</u>	
Conditions to avoid	: None
Materials to avoid	: None
Hazardous decomposition Products	: None
11. <u>Toxicological Information</u>	
General Information	: Prolonged exposure to Respirable Crystalline Silica (RCS) slate dust may cause silicosis. Long-term exposure to high levels of RCS dust can also lead to an increased risk of developing lung cancer.
Note	: If the dust given off from working with Slate is fine enough to breath into the lungs through the nose and mouth is termed "respirable". Once it is breathed in, RCS dust can be retained in the lungs for many years.
12. <u>Ecological Information</u>	
Mobility	: Non-volatile.
Persistence and Degradability	: Non-biodegradable
Bio accumulative Potential	: No bio accumulative potential
13. <u>Disposal Information</u>	
Disposal of Product	: Slate is an inert material and any waste produced should be disposed of in accordance with local legal regulations.
Disposal of Packaging	: Disposed of in accordance with regional or national regulations.
14. <u>Transport Information</u>	
Transport Warning Label	
-Packing Group	: Crushed Slate Products do not require labelling and is not subject to hazardous substance conveyance regulations.
- ADR/RID	: N/A
- IMO-IMDG code	: N/A
- IATA	: N/A
-UN No	: N/A
15 <u>Regulatory Information</u>	
Labelling according to EU directives	
DANGER symbol(s)	: None

Material Safety Data Sheet

Risk Phrases	: R36 - Irritating to eyes; R66 – Repeated exposure may cause dry skin or cracking; R68/20 – Harmful: possible risk of irreversible effects through Inhalation.
Safety Phrases	: S22 - Do not breath dust; S25 - Avoid contact with eyes; S37/39 – Wear suitable gloves and eye/face protection; S38 – In case of insufficient ventilation wear suitable respiratory equipment; S51 – Use only in well-ventilated areas; S57 – Use appropriate containment to avoid environmental contamination.
CAS No	: None
<u>16 Other Information</u>	
Other Information	: Dry dust from natural slate is a substance hazardous to health and requires employers to carry out an assessment under the COSHH regulations 2002.
Legal Disclaimer	: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

For further information please contact our technical sales department.

**VOBSTER CAST STONE MASONRY TO
BLOCK 3 FEATURE STONE BAND**



Technical Details

Artificial Stone Products are generally manufactured to the cast stone product test requirements of BS 1217: 1997, comprising a two part monolithically cast mix. On occasion due to unit topography The product may be manufactured from face mix only. Artificial Stone products utilise high quality Raw materials sourced from established and reputable suppliers.

Design information is given BS 5628 part 3 with respect to building design for movement, mortar specification etc. However general advice is available from Artificial Stone Products Ltd.

MEAN COMPRESSIVE STRENGTH 32N/mm²
With no single results than 28N/mm²

WATER ABSORPTION (CAT).....average 1.0g/mm²
With no individual figure exceeding 1.3mg/mm²

MEAN DENSITY (DRY) 2225kg/m³

DIMENSIONAL TOLERANCE

Linear Size	Tolerance
<600mm	+/- 2mm
601 to 1000mm	+/- 3mm
1001 to 2500mm	+/- 4mm

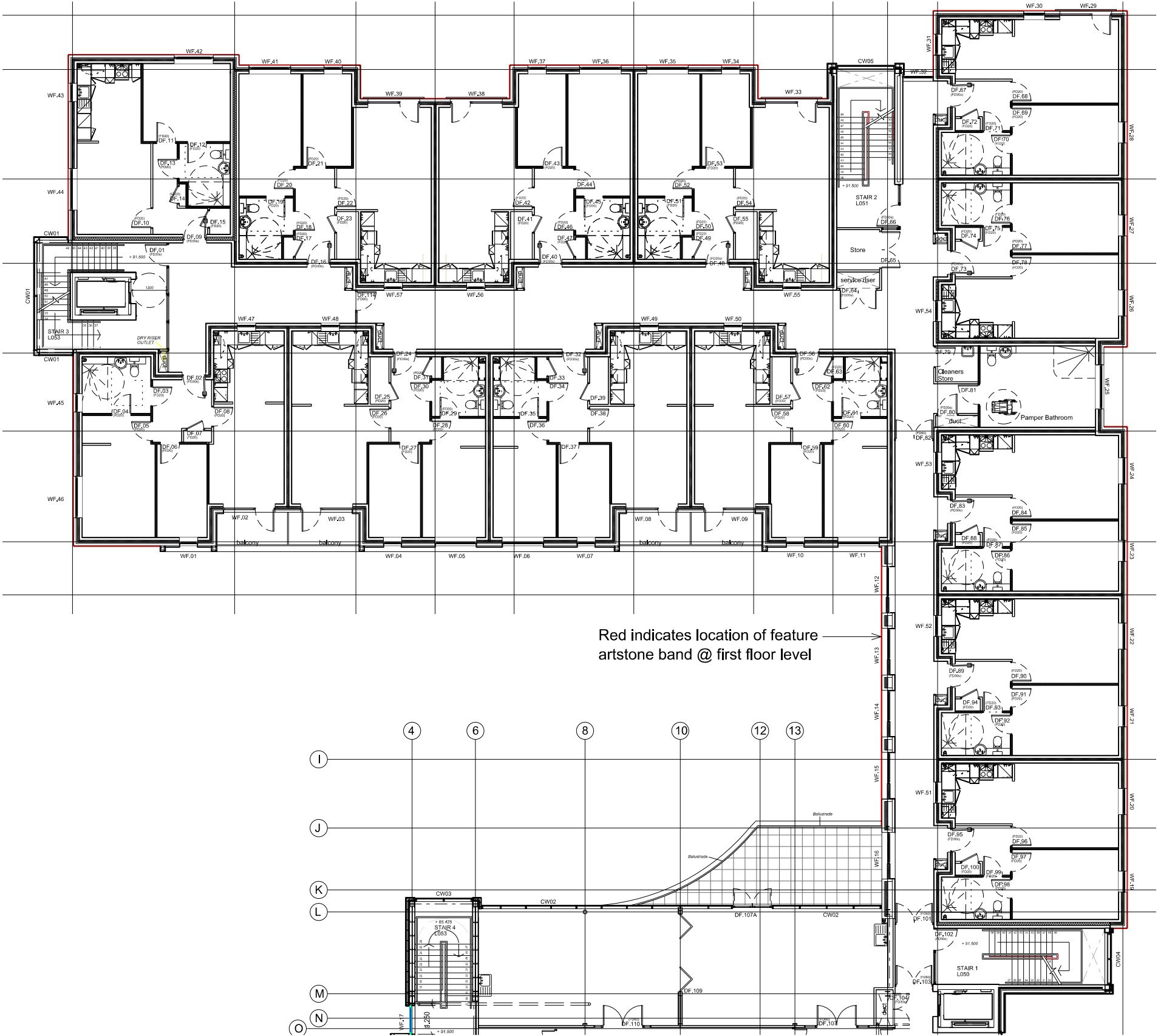
REINFORCEMENT..... Mild Steel, (others by negotiation)

Cast stone products should be designed in accordance with the following, amongst other factors.

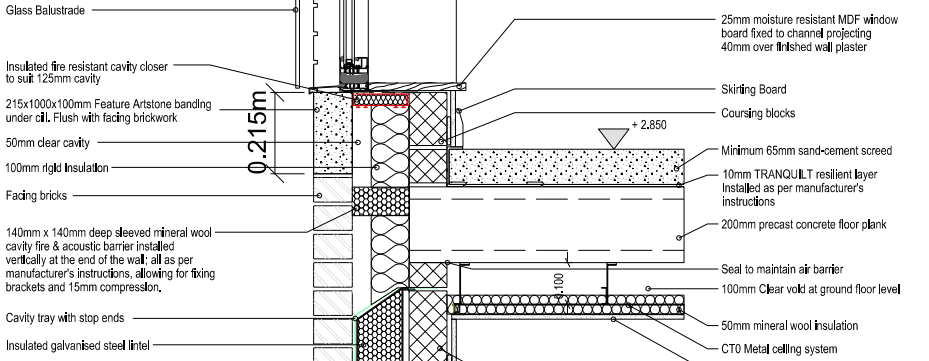
1. C.D.M requirements
2. Slenderness ratio
3. Product moulding requirements

The cleaning of Artificial Stone we would not advise any acids to be used only soap and water.

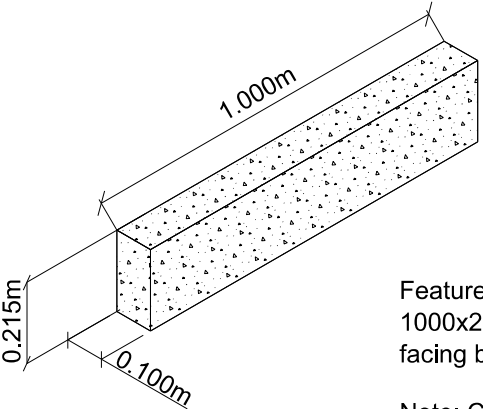
Dimensions are to be checked on site. Do not scale from drawings. Report discrepancies to the Architect.



Red indicates location of feature artstone band @ first floor level



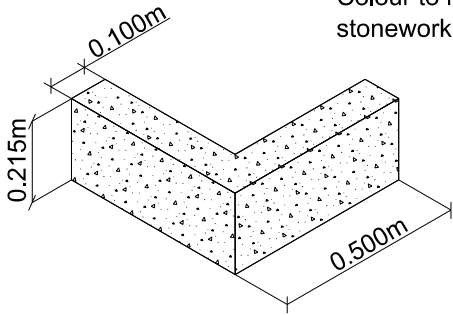
1:20



Feature artstone band 1000x215x100mm set flush with facing brickwork

Note: Colour sample for approval required prior to commencement of works

Indicative isometric N.T.S



Colour to match existing stonework to blocks 1&2 IE. Buff

Indicative external corner block N.T.S

REV A	Drawing status amended to Construction	04.01.17	JJ
DESIGNATION	DETAILS OF REVISION	DATE	INITIALS

PROJECT

3-9 Grosvenor Road
Wrexjam LL11 1DB

TITLE

Feature artstone sill band details
...

JOHN MCCALL ARCHITECTS LTD
No.1 Arts Village, Henry Street, Liverpool L1 5BS Tel: 0151 707 1818 Fax: 707 1819
Old Coop Building, Church Street, Hayfield, SK22 2JE e-mail: admin@johnmccall.co.uk

SIZE
A3

STATUS
CONSTRUCTION

PROJECT No
1449

DRAWING No
L.237-A

DRAWN by
JJ

CHECKED
...

DATE
11.11.16

SCALE (u.n.s)
1:20

**EXISTING STONework CLEANING
METHOD TO EXISTING BLOCKS 1 & 2**



1449

CENTURYWISE CW3 PAINT REMOVER

1. IDENTIFICATION OF SUBSTANCE/PREPARATION AND COMPANY

Product : CW3 Paint Remover

REVISION 6

AUG. 2008

Company : Centurywise Ltd, Unit 2, HNG House, Stuart Road,
Bredbury, Stockport, Greater Manchester, SK6 2SR.

Tel : 0161 - 494 6801

Fax : 0870 123 1542

2. COMPOSITION/INFORMATION ON INGREDIENTS

Contents amongst other ingredients :-

<u>Substance</u>	<u>UN no.</u>	<u>EC no.</u>	<u>CAS no.</u>	<u>EINECS</u>	<u>% w/w</u>
Methylene Chloride	1593	612-078-00-9	75-09-2	200-838-9	80-90 %
Methyl Alcohol	1230	603-001-00-X	67-56-1	200-659-6	10-15%

3. HAZARD IDENTIFICATION

PRINCIPAL HAZARD :
Harmful – Chemicals that may cause danger to health

HAZARDOUS COMPONENT (S)	PRODUCT CLASSIFICATION					RISK AND SAFETY PHRASE REFERENCE NUMBERS
Methylene Chloride	T+	C	Xn	Xi	F	R 20/21/22, 40
			^			
	Xn HARMFUL					S 2, 23/24/25 S 36/37/38/39
Methyl Alcohol	T	C	Xn	Xi	F	R 11, 23/24/25 R 39
	^					
	T TOXIC					S 7/9, 16, 24 S 36/37/38/39, 45

RISK PHRASES (R)		SAFETY PHRASES (S)	
R 11, 20, 22, 23/24/25 R 39, 40		S1/ 2, Keep locked up & out of reach of children S7, S16, S23, Do not breath gas / fumes / vapour / spray. S24/25, Avoid contact with skin and eyes. S36/37/39, Wear suitable protective clothing, gloves, and eye/ face protection. S38, In case of insufficient ventilation, wear suitable respiratory equipment. S45, In case of an accident, or if you feel unwell, seek medical advice immediately.	
C.O.S.H.H. - CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH			
Does product contain an EH 40 Regulated Substance ?		YES If yes continue.....	
DOES THE EH 40 SUBSTANCE HAVE AN OCCUPATIONAL EXPOSURE STANDARD ?		YES	
DOES THE EH 40 SUBSTANCE HAVE A MAXIMUM EXPOSURE LIMIT ?		YES	
EH 40 LISTED COMPONENT	L.T.E.L.	S.T.E.L.	
Dichloromethane (MEL)	100 ppm 8 hour TWA 350 mg/cu.mtr 8 hour TWA	300 ppm 15 min TWA 1060 mg/cu.mtr 15 min TWA	
Methyl Alcohol (OES)	200 ppm 8 hour TWA 266 mg/cu.mtr 8 hour TWA	250 ppm 15 min TWA 333 mg/cu.mtr 15 min TWA	

4. FIRST-AID MEASURES

a) STANDARD HSE GUIDANCE - <i>IF NO DIPHOTERINE IS AVAILABLE</i>	
SKIN	Drench area with clean water for 10- 15 minutes. If irritation is apparent seek medical attention. Irritation/redness will result if slow to react. DO NOT DELAY.
EYES	Irrigate immediately with clean water for 10 – 15 minutes, holding eyelid open if necessary, and seek medical attention. Severe irritant effect could result if slow to react.

b) BEST METHOD - USING DIPHOTERINE

DIPHOTERINE IS AN EYE/ SKIN DECONTAMINATION SOLUTION FOR RAPID FIRST-AID TREATMENT OF CHEMICAL SPLASHES. DIPHOTERINE STOPS THE PENETRATION OF THE CHEMICAL PRODUCT.

SKIN

Do not wash affected area with water.
Spray Diphoterine directly onto the area. Product works best if applied within sixty seconds of occurrence – Hence an aerosol needs to be carried by the operator. Diphoterine will purge the harmful content from the affected area, and leave neutralized.
Wash away residues. If irritation should persist, seek medical attention.

EYES

Do not wash eye with water.
Irrigate immediately (within 60 seconds of occurrence) with Diphoterine spray.
Wash away the residues.
If irritation persists, seek medical attention.

USE OF THIS PRODUCT REQUIRES TRAINING.

**TO PURCHASE PRODUCT & TO ENQUIRE ABOUT TRAINING COURSES CONTACT....
KAYS MEDICAL (LIVERPOOL) – TEL : 0151 482 2830 , FAX : 0151 207 3384**

c) INGESTION	Wash mouth with plenty of clean water. Drink water or milk to dilute hazard, and seek IMMEDIATE MEDICAL ATTENTION showing this data sheet. DO NOT INDUCE vomiting due to risk of aspiration of vapours.
d) INHALATION	Remove to fresh air and keep warm. Seek medical attention if symptoms persist.
MEDICAL ADVICE	CW3 should not be allowed to come into contact with skin, eyes , or clothing. If so, REACT QUICKLY to address the hazard.

5. FIRE FIGHTING MEASURES

Product is not flammable.

Extinguishing media : Water spray , foam, dry powder, halones or carbon dioxide.

Special exposure hazards : Toxic fumes may be evolved if product is involved in a fire.

Special precautions : Wear full suit protection and breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Safety precautions : Wear appropriate personal protective gear (see section 8)

Environmental procedures : Prevent entry into drains.

Clean-up procedure : Contain in confined area using sand, earth, or suitable material. Label clearly, and dispose of in accordance with local authority procedures. *See Section 13.*

7. HANDLING & STORAGE

Handle in accordance with CHIP/ COSHH requirements ; Refer to Sections 3 (Hazards Identification) and 8 (Exposure Controls/ Personal Protection).

Store in a well ventilated area at ambient temperatures.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Wear full face visor.

Wear protective chemical proof suit and boots if danger of splashing.

Wear appropriate respiratory protection if poor ventilation or high concentrates (i.e. spillage) .

Avoid breathing mist or spray.

PROTECTIVE EQUIPMENT :



COLLECTIVE EMERGENCY EQUIPMENT - Have 25 litres of clean water available, along with first-aid box containing minimum two containers of Diphoterine First-aid spray, and eye bath.

9. PHYSICAL & CHEMICAL PROPERTIES

Appearance.....	opaque white viscous liquid
Odour.....	sweet chloroform odour
Specific gravity	approx 1.16 @ 20deg. C
Vapour density.....	2.93
Vapour pressure.....	no data
Freezing point.....	N/A
Boiling Point.....	40 deg. C
Flash point.....	no data
pH neat.....	N/A
Solubility.....	Insoluble in water

10. STABILITY & REACTIVITY

Stability Stable at ambient temperatures.

Conditions to avoid Avoid exposure to direct heat, naked flames , etc.

Hazardous decomposition products May liberate Phosgene and Hydrogen Chloride

11. TOXICOLOGICAL PROPERTIES

Eye contact . will cause severe burns

Skin contact may cause burns. May be absorbed through the skin.

Ingestion : Harmful if swallowed . Ingestion may prove fatal.

Inhalation of low concentrates may cause headache, nausea, inco-ordination and "drunkenness". High concentrations may cause bronchitis, pulmonary oedema, vomiting, numbness of the extremities, cyanosis, unconsciousness and death.

12. ECOLOGICAL INFORMATION

CW3 contains methylene chloride and other agents which will evaporate when exposed to the atmosphere for a few hours. Hot water jetting also vapourises the methylene chloride. Splashes of the product on vegetation are not corrosive, but should be avoided by covering plants with protective sheeting.

Problems may arise from the nature of the paint debris, which may contain lead and other metals which are not acceptable in waste water drains. Contain paint debris by using a layer of sand/earth around the work area. Upon completion of work , dispose of debris in an approved manner following local authority rules.

For further information visit - www.centurywise.co.uk – click on *Techniques* & then click on *The environment* and scroll to *paint remover - methylene chloride*

13. DISPOSAL INFORMATION

This product does not contain any prescribed substance under the Environmental Protection Act (Prescribed Processes and Substances) Regulations 1991, but is classified as special waste under the Control of Substances (Special Waste) Regulations 1996.

Under 'DUTY OF CARE' the disposal of unwanted stocks should be conducted in a safe and proper manner by authorised and consented methods.

Do not allow into drains or water courses, or dispose of where ground for surface waters may be affected.

Wastes, including empty containers, should be disposed of in accordance with regulations made under the Control of Pollution Act 1974, and the Environmental Protection Act 1990.

14.TRANSPORT INFORMATION

Shipping name - Toxic Liquid Organic NOS (Methylene Chloride & Methyl alcohol)
Class - 6.1
UN number - UN 2810
IMDG - Class 6
Packing Group - 111
ADR Classification - T1



Label for conveyance - **Toxic :-**

15. REGULATORY INFORMATION



LABEL FOR SUPPLY : - **Harmful**

The Health and Safety information on the label as required by Regulation 9 of C.H.I.P. is quoted under Section 3 – Hazard Identification.

The relevant OES/ MEL as required by C.O.S.H.H. Regulations is stated in Section 3.

EC Directives –

Dangerous Substances Directive – 67/548/ EEC and adaptations.
Dangerous Preparations Directive – 88/379/ EEC
Safety Data Sheets Directive – 91/155/ EEC

U.K. Regulations –

Control of Pollution Act 1974
Control of Pollution (Special Wastes) Regulations 1980 SI 1709
The Control of Substances Hazardous to Health Regulations 2002 (as amended)
Dangerous Substances (Notification and Marking of Sites) Regulations 1990 SI 304
Environmental Protection Act 1990 (as amended)
Environmental Protection (Duty of Care) Regulations 1991 SI 2839 (as amended)
Carriage of Dangerous Goods and use of Transportable Pressure Equipment Regulations 2004

16. OTHER INFORMATION

Data source..... Centurywise Ltd

Use product only as directed.

Information compiled in accordance with Chemicals (Hazard Information and Packaging for Supply) Regulations (Chip 3) 2002 as amended , the Control of Substances Hazardous to Health Regulations (COSHH) 2002 (SI 1999/437) as amended, and the Management of Health & Safety at Work Regulations 1999, as amended.

DISCLAIMER :

THE ABOVE INFORMATION IS PROVIDED FOR HEALTH AND SAFETY PURPOSES ONLY, AND DOES NOT IMPLY ANY CHEMICAL SPECIFICATION. THE DATA HAS BEEN COMPILED FROM SOURCES CONSIDERED ACCURATE. THE USER SHOULD SATISFY HIMSELF THAT THE PRODUCT IS ENTIRELY SUITABLE AND SAFE FOR HIS OWN PARTICULAR PURPOSES. IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE BEST PRECAUTIONS NECESSARY FOR THE SAFE HANDLING AND USE OF THIS PRODUCT FOR HIS UNIQUE APPLICATION. THIS DATA SHOULD NOT BE CONSTRUED AS ABSOLUTELY COMPLETE, SINCE ADDITIONAL DATA MAY BE DESIRABLE WHEN PARTICULAR CONDITIONS OR CIRCUMSTANCES EXIST.

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MANY LOCAL AND NATIONAL AUTHORITY REGULATIONS PERTAIN DIRECTLY OR INDIRECTLY TO THE PRODUCT'S END USE AND DISPOSAL OF CONTAINERS AND UNUSED MATERIALS. IT IS THE PURCHASER'S RESPONSIBILITY TO FAMILIARIZE HIMSELF WITH ALL APPLICABLE REGULATIONS.

Date of Preparation : August 2008

RAINWATER GOODS TO EXISTING BLOCKS 1 & 2



1449

Tony Shields

From: Michael Ireland <Michael.Ireland@keepmoat.com>
Sent: 06 March 2017 15:55
To: Tony Shields
Subject: Grosvenor Road Technical submission Statement.

Tony,

In response to your 'request for clarity', regarding a requirement for a statement for Planning, from Keepmoat, with reference to the Ex Building Envelope and its Guttering.

I can confirm that the Guttering on site is 75% Existing, any additional/replacement 'cast Iron' gutters, that have been introduced, we are replacing the damaged or Ex' aluminium profiles as required.

Of the 20 lengths of Existing lengths, we have replaced circa 4 lengths of aluminium with an Alumasc aluminium product. We do have access to Product data information on these sections of cast guttering. Please refer to the Hyperlink below

<http://www.alumascrainwater.co.uk/downloads/data-sheets>

Mick Ireland

Michael Ireland
Design Coordinator



t. 01618766000 | m. 07970 727325 | w. keepmoat.com



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MOVEMENT JOINT MASTIC TO NEW BUILD ELEMENT



1449



Technical Data



SILICONE 825

Low Modulus Neutral Cure Sealant



Description

SILICONE 825 is a low modulus, neutral cure, alkoxy, odourless silicone sealant that adheres to a wide range of both porous and non porous surfaces without the need for priming. Certified to 11600 F+G25LM.

Benefits

- Excellent tooling and slow skinning properties for large scale construction and glazing applications.
- Excellent adhesion - adheres to most common surfaces including glass, metals, plastics and wood (painted or unpainted), uPVC and polycarbonate.
- Excellent external weathering properties (over many years exposure).
- High viscosity non slump formula.

Recommended For

Perimeter pointing internally and externally around PVCu /wood and powder coated aluminium. Sealing and as an adhesive onto PVCu, plastic trims and components. Sealing soft metals such as lead, copper and zinc. Weather sealing and joint sealing to pre-formed panels and curtain walling, glazing sealing and draught proofing. Glass to glass and glass to aluminium sealing. Parapet and roof weather sealing applications.

Suitable as an expansion joint sealant.

Bedding and sealing of Insulated Glass units.

Specification Compliances

Certified to ISO11600 F25LM and G25LM.

- SNJF 25E for glazing and façade (primed aluminium and unprimed glass and mortar)
- CE marked under EN15651 for cold climate, façade, glazing and sanitary applications.



Available in

380ml Cartridges in the following colours:

White
Black
Mid Grey
Dark Grey

Brown
Buff
Beige
Anthracite
Magnolia
Portland Stone
Limestone White

**Colour Brick
Red approved
on site**

Storage

Store in original unopened containers between +5°C and +30°C. Storage outside these parameters may dramatically reduce shelf life.

Shelf Life

12 months from date of manufacture.



Technical Data

SILICONE 825

Low Modulus Neutral Cure Sealant

Health & Safety

Consult MSDS for full list of hazards.

Specific Data

Movement Accommodation ISO9047	(ASTM C719) $\pm 35\%$
Skinning Time	30-45 mins
Cure Time	mm/1 day approx 2 mm/3 day approx 6 mm/7 day approx 9
Hardness Shore A	20-30
Shrinkage ISO10563	<5%
Service Temperature Resistance	-50°C to + 150°C
Application Temperature	+5°C to + 40°C
Specific Gravity	1.33 - 1.37
Cleaning	Uncured sealant - white spirit. Cured sealant - Everflex Silicone Eater
Maximum Joint Width	50mm
Joint Ratio	Max Depth 50% of joint width
Coverage	@ 5 linear metres 9 x 9mm fillet joint
Elongation at Break ISO 8339 23°C	>200%
Tensile Modulus at 100% Elongation ISO 8339 23°C	0.25—0.3MPa
Tensile Adhesion Strength at Break	0.5MPa
Elastic Recovery ISO 7389	>80%
Compressive Modulus 100% ISO 11432	0.35 MPa

Joint Dimensions

For maximum movement accommodation, it is recommended that:

1. The sealant joint depth should be no less than 5mm
2. Joint depth should be 5mm for joints up to 10mm wide
3. Joints above 10mm in width should be half the width in depth up to 20mm and minimum 10mm for wider joints

Joint depth may be adjusted to the correct size using EVERBUILD JOINT BACKER ROD or BOND BREAKING TAPE in cases where there is not enough depth to use Backer Rod.

Movement Factors

Maximum 70% (not to exceed 35% in any one direction)

Joint Width Calculation

Joint widths are calculated as in BS6213:

$$\text{Width} = \frac{M \times 100}{F} + M$$

Where M = movement and F = movement accommodation Factor

Primer

SILICONE 825 does not require a primer on most common surfaces, although adhesion tests are recommended prior to full scale application. If the joint is likely to be immersed or if adhesion is poor (especially on porous surfaces) use EVERBUILD SILICONE PRIMER P1. To improve adhesion (if required) to non-porous surfaces, prime with EVERBUILD SILICONE PRIMER NP2 (advised for aluminium).

Surface Preparation

Surfaces must be clean, dry and free from dust, grease and other contaminants. Remove dust with compressed air. Degrease by using a solvent soaked pad, following by wiping with a clean cloth. Following cleaning procedure and materials are recommended:

Glass	Degrease with alcohol or MEK
Aluminium, light alloys and stainless steel	Degrease with alcohol or MEK
Other Metals	Lightly abrade then degrease as above
Wood	Lightly abrade surface then remove dust
Plastics	Degrease using an agent recommended by plastics manufacturer
Concrete and other alkaline surfaces	Brush and remove dust

Limitations

- Do not use in conjunction with bitumen asphalt, neoprene and certain organic elastomers.
- Do not use in the manufacture of Aquariums.
- Do not use on substrates that bleed oil, solvents or plasticisers.
- Non overpaintable.
- Use as a mirror adhesive; Not recommended.
- Do not use on food grade applications – Use Silicone 565
- Do not use to produce swimming pool joints.
- Can yellow if exposed to bleach or HCL based brick cleaners whilst curing.

The technical data contained herein is based on our present knowledge and experience and we cannot be held liable for any errors, inaccuracies, omissions or editorial failings that result from technological changes or research between the date of issue of this document and the date the product is acquired. Before using the product, the user should carry out any necessary tests in order to ensure that the product is suitable for the intended application. Moreover, all users should contact the seller or the manufacturer of the product for additional technical information concerning its use if they think that the information in their possession needs to be clarified in any way, whether for normal use or a specific application of our product. Our guarantee applies within the context of the statutory regulations and provisions in force, current professional standards and in accordance with the stipulations set out in our general sales conditions. The information detailed in the present technical data sheet is given by way of indication and is not exhaustive. The same applies to any information provided verbally by telephone to any prospective or existing customer.