



**Listed Building Consent 2007/5230/L**  
**Condition 21b(i)rev B – 15 February 2010**

**METHOD STATEMENT  
FOR THE NEW ROOF COVERINGS, INCLUDING DETAILS OF  
ROOFLIGHTS AND EXTERNAL ROOF TERRACE TO THE EAST AND  
WEST TRANSIT SHEDS**

**Nature of the Proposal**

The proposal identifies the new roof coverings to be fixed to the new structural frame over the East and West Transit Sheds.

**Reason**

To comply with the Planning Condition set out under Listed Building Consent 2007/5230/L Condition 21-b-(i).

**Method Statement Sequence**

The new roof coverings are to be applied to a new structural support system to pitched and flat roofs.

***Pitched Roof***

The pitched roof coverings are laid on purlins fixed to a combination of structural steel or structural timber frames.

- The cladding consists of an under cloak sheet fixed to the purlins and covered with a vapour barrier
- Halters are fixed through the under sheet into the structural frame beneath.
- Mineral wool is placed over the under cloak sheet
- The top standing seam sheet is placed on top of and fixed to the halters
- The top sheets are crimped together to provide a waterproof seal.
- New aluminium gutters are placed on top of the existing heritage walls on Grid Lines A and R. The vapour barriers and top sheet discharge over the gutter.
- Rooflights are incorporated into the pitch of the roof. The rooflights are designed to discharge light into the building.
- Walkways are constructed above the standing seam roof to provide access to maintain plant and equipment and clean the windows.
- Abutting the West Handyside Canopy, between Grid Lines A7 and A23, the parapet wall has been raised to accommodate the increased roof thickness. A walkway is also provided for maintenance purposes.

- The walkway also provides access to the West Handyside Canopy for maintenance purpose.

### ***Rooflights***

There are two rooflight manufacturers' products being used. They are Vitral and Lonsdale.

Vitral rooflights are used within the main pitch of the roof covering. All rooflights in the West Transit Shed and those isolated from the plant deck in the East Transit Shed are Vitral.

Lonsdale rooflights are used only in the East Transit Shed. They are located above the roof terrace.

### ***Flat Roof Hydrotech***

The flat roof forms the roof terrace and three plant areas. The Hydrotech roof coverings are to be laid onto a new concrete load bearing structural slab.

- The concrete slab, once cured, will be primed with Hydrotech surface conditioner.
- Hydrotech Monolithic Membrane 6125 is laid on the primed surface 3mm thick.
- Flexflash F polyester roll is laid and brushed into the Monolithic Membrane
- A second coat of Hydrotech Monolithic Membrane 6125 is spread over the Flexflash F polyester roll 3mm thick.
- This is followed by a layer of Hydrogard 10 brush rolled into the Hydrotech Monolithic Membrane 6125.
- All vertical abutments with other structures are turned up the building 150mm minimum.
- The roof surface is now waterproof.
- Outlets are provided to take surface water off the roof into the rainwater harvesting tanks.
- Insulation is placed over the waterproof membrane
- Paving flags are laid on top of the insulation on the plant decks.
- A timber decking, built off plastic carriers and timber battens, forms the garden roof terrace.

### ***Flat Roof Single Ply Membrane***

The single ply membrane is laid on top of the metal deck roof covers to the lift shaft and plant access enclosures of the West Transit Shed.

- The roof coverings are placed on top of the metal decking.
- Insulation is placed over the structural metal deck
- An isolation membrane is laid over the insulation
- The single ply membrane is placed over the isolation membrane. Joints in the membrane are heat sealed using a hot air gun. At the perimeter abutments the membrane is turned up the wall a minimum of 150mm to provide a perimeter seal.

- A single ply gulley is placed within the roof structure to drain rainwater to the rainwater harvesting tanks.

## Attached Drawings

### *BAM Design*

3753/ARCH/1008C	GA Overall Roof Plan
3753/ARCH/1006R	GA Fourth Floor / Lower Roof Plan
3753/ARCH/1100F	GA Elevations Sheet 1 of 2
3753/ARCH/1101M	GA Elevations Sheet 2 of 2
3753/ARCH/C1200-	Central – 1 to 100 Sections Sheet 1 of 8
3753/ARCH/E1025-	East Transit Shed Terrace Plan
3753/ARCH/E1281-	East Transit Shed Terrace North Elevation
3753/ARCH/E1280-	East Transit Shed Terrace East Elevation
3753/ARCH/E1282-	East Transit Shed Terrace West Elevation
3753/ARCH/E1251B	East Transit Shed 1 to 20 Wall Sections Sheet 2 of 8
3753/ARCH/E1252B	East Transit Shed 1 to 20 Wall Sections Sheet 3 of 8
3753/ARCH/E1410F	East Transit Shed Roof Details Typical
3753/ARCH/E1414A	East Transit Shed Roof Details Terrace Area
3753/ARCH/E1275D	East Transit Shed Roof Detail Setting Out of Rooflights
3753/ARCH/E1014D	East Transit Shed 1 to 50 Third Floor Plan (Roof) Sheet 1 of 4
3753/ARCH/E1015F	East Transit Shed 1 to 50 Third Floor Plan (Roof) Sheet 2 of 4
3753/ARCH/E1016F	East Transit Shed 1 to 50 Third Floor Plan (Roof) Sheet 3 of 4
3753/ARCH/E1017G	East Transit Shed 1 to 50 Third Floor Plan (Roof) Sheet 4 of 4
3753/ARCH/W1275-	West Transit Shed Roof Detail Setting Out of Rooflights
3753/ARCH/W1410A	West Transit Shed Roof Level Detail Roof Sections
3753/ARCH/W1014B	West Transit Shed 1 to 50 Plan Sheet 1 of 4
3753/ARCH/W1015A	West Transit Shed 1 to 50 Plan Sheet 2 of 4
3753/ARCH/W1016A	West Transit Shed 1 to 50 Plan Sheet 3 of 4
3753/ARCH/W1017A	West Transit Shed 1 to 50 Plan Sheet 4 of 4
3753/ARCH/W1213-	West Transit Shed GA Section on GL W20 Looking North
3753/ARCH/W1214-	West Transit Shed GA Section on GL W16 Looking North
3753/ARCH/W1211-	West Transit Shed GA Section on GL W03 Looking South
3753/ARCH/W1212-	West Transit Shed GA Section on GL W09 Looking South
3753/ARCH/W1436A	West Transit Shed Plant Area Fire Wall Sections 1 & 2 Sheet 1 of 2
3753/ARCH/W1280-	West Transit Shed North Section of Heritage Wall Elevation
3753/ARCH/W1411-	West Transit Shed Roof Level Sections
3753/ARCH/W1414A	West Transit Shed Roof Level Sections
3753/ARCH/W1416-	West Transit Shed Hip Detail





Hydrotech Model Specification Clauses

Sika-Trocal Single Ply Membrane Product Details

Rigidal Ziplock Standing Seam Roof Product Details

Vitral Glazed Roof System Technical Details

Lonsdale Rooflights Extract of Design Guide and Section of ThermGuard profile

All works will be supervised by a competent supervisor.

No deviation is to be made to this method statement without it being confirmed in writing by the Construction Manager of BAM Construction.



## Flat Roofing & Waterproofing Systems

Structural Waterproofing Systems  
Hydrotech  
Model Specification Clauses

# Protected Roofs (inverted - ballast or paving)

Inverted Roofs, Plant Rooms, Cradle Runways, Helipads, and High Impact Areas on a Concrete Deck

## Preparation

In situ structural concrete surface to be finished with wood float (not steel trowel or power floated). Concrete density 2160 kg/m<sup>3</sup> to 2563 kg/m<sup>3</sup> cured for 28 days.

Surface must be dry and clean of all contaminants. All loose dirt or debris to be brushed and blown clear using dry air or industrial vacuum machine.

Prime concrete with Hydrotech surface conditioner using hand held air sprayer at a rate of 8-16m<sup>2</sup> per litre and allow to dry completely. Do not prime metal or timber surfaces.

## Waterproofing

Heat blocks of Hydrotech Monolithic Membrane 6125 in an oil or air jacketed melter to 205°C and apply to substrate at a rate of circa 3mm thick spreading with a squeegee.

Apply reinforcement of Flexflash F polyester in roll form and brush into Hydrotech Monolithic Membrane 6125 ensuring no air pockets.

Apply a second coat of Hydrotech Monolithic Membrane 6125 at a rate of 3mm thick spreading with a squeegee while hot, ensuring no air pockets.

Install a layer of Hydrogard 10 brush rolled into the final coat of Hydrotech Monolithic Membrane 6125 with 75mm laps.

## Detailing

Where minor movement or change in level direction or dissimilar materials occur, the reinforcement is to be Flex Flash UN, overlap to Flex Flash F, 75mm.

All detail work to be a minimum of 150mm from finished roof, including surfacing.

Please note that entry of water over any detail work of less than 150mm in height, (above the finished roof surface, including paving/ballast etc.) would not be covered under the terms and conditions of the warranty.

## Thermal Insulation

Supply and lay on to the completed roof waterproofing, Alumasc Roofmate TF extruded polystyrene insulation of sufficient thickness to meet the "U" value requirement for the structure. Install polyester filter sheet and either ballast, comprising 20-40mm river washed ballast, or paving slabs on Harmer Deck Modulock adjustable paving supports, the loading to be sufficient to prevent wind uplift and flotation.

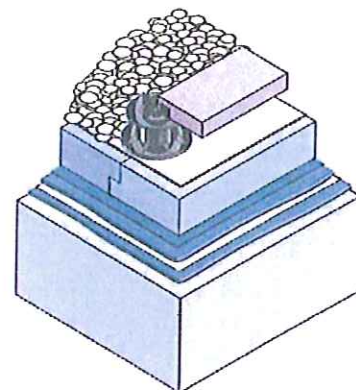
## General Notes

The contractor is to install all details to comply with the Hydrotech Quality Assurance Manual for Hydrotech hot-melt membrane systems. Should any detail arise where it is not clear that this can be achieved, the contractor is to seek advice and approval for all fabrication proposals from Alumasc before completing the works.

On completion the integrity of the waterproofing must be tested by means of an electronic detector system to prove that the waterproofing is 100% free from punctures and defects. The issue of the A-SURE Hydrotech warranty is conditional upon the provision of a leak test certificate. The waterproofing contractor should include a sum for such a test within his quotation.

It is assumed that the building owner or his advisors have satisfied themselves that the roof structure and deck are suitable to receive the dead load both during construction and on completion of the works.

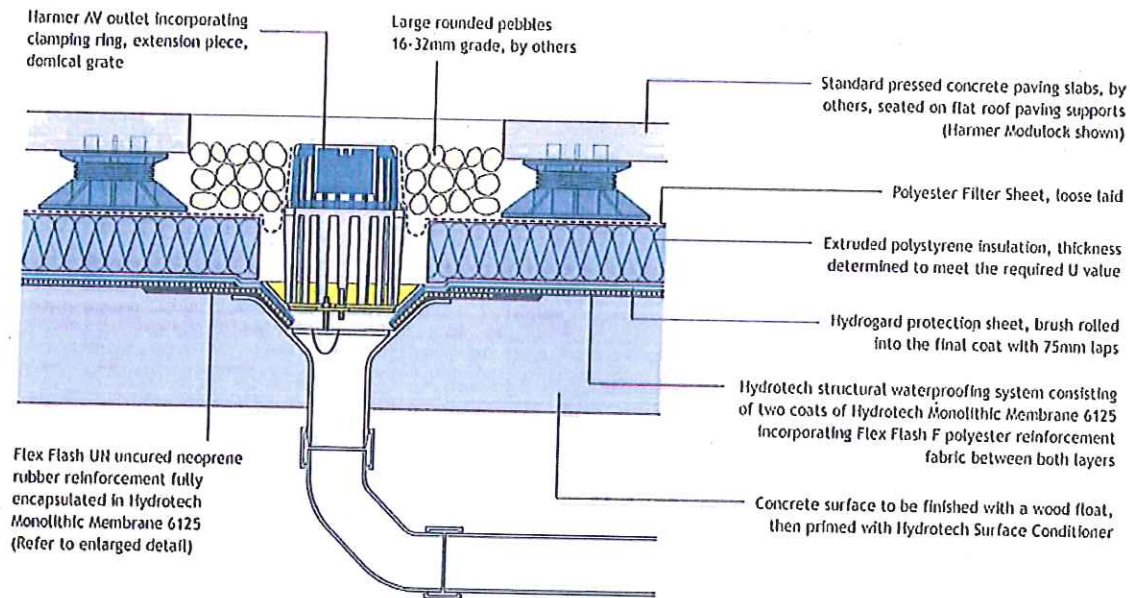
The above specification shall be installed in accordance with the manufacturers' installation instructions. Alumasc fixing instructions shall be followed for product supplied by the company. The works shall be installed by an Alumasc A-TEAM Hydrotech Approved Contractor, and the A-SURE Hydrotech Warranty shall be issued upon completion.





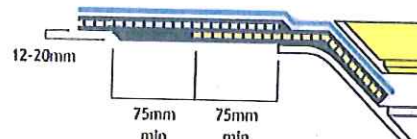
## Rainwater Outlet – 1

Hydrotech waterproofing to rainwater outlet with clamping ring (outlet exposed)



### Notes

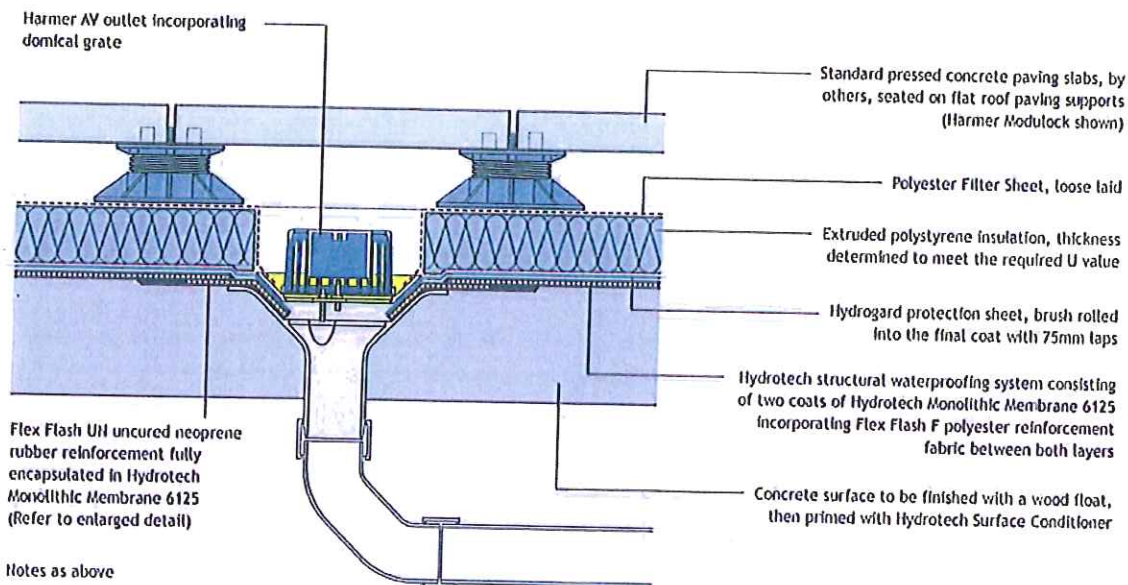
1. Concrete around gulley should be dressed to promote positive water drainage.
2. Flex Flash UN should be one sheet extending a minimum of 75mm beyond the gulley flange on all sides, and secured by clamping ring.
3. Gulley must be maintained free to weep at membrane level.



Enlarged detail of dressing into AV outlet  
(Read with rainwater outlet details 1 and 2)

## Rainwater Outlet – 2

Hydrotech waterproofing to rainwater outlet with clamping ring (outlet hidden)



Notes as above



Fig.5 Sika-Trocal single ply roofing

# Sika-Trocal Single Ply Roofing

## The Sika-Trocal Concept

### Introduction

The achievement of zero defects on site is critical not only to ensuring the project is completed on time and within budget, it also ensures a watertight building that will have stable thermal performance at roof level. With the increased focus on the environment, and particularly the reduction of carbon emissions, maintaining thermal performance over time is critical.

The purpose of this brochure is to highlight ways in which the Sika-Trocal concept can help the construction industry achieve zero defects. The Sika-Trocal Concept utilises lightweight, flexible and easy to install single ply membranes to provide a range of new and refurbishment roofing systems that are ideally suited to today's environmentally conscious fast track construction programmes.



Comprising a range of single ply membranes that can be attached in a number of ways, the Sika-Trocal Concept is suitable for most forms of flat, pitched, curved or even vertical roof surfaces. Central to the Sika-Trocal Concept is the Type S membrane, first manufactured in Germany in 1962. Since then Sika-Trocal roofing membranes have been used in every type of environment throughout the world.



Introduced to the UK in 1972 under the brand name Trocal, the Sika-Trocal Concept has been at the forefront of the single ply roofing industry.

In the 1970's the company was amongst the first to achieve a British Board of Agrément Certificate for single ply membranes. Updated numerous times since, that document is still used to satisfy the requirements of the Building Regulations today.

In the 1980's the company introduced Field Engineers, a service team that not only train the Sika-Trocal Licensed Contractors but are also responsible for signing completed projects off for guarantee.

In the 1990's Sika-Trocal's oldest client, Tesco, carried out air leakage testing on its warehouses and stores. The results achieved were, and continue to be, significantly better than the building air tightness levels required by Building Regulations Approved Document L (Part L) 2006.

The new millennium saw the integration of Trocal into the Sika Group, a £1.59 billion turnover supplier of materials to the construction industry active in more than 70 countries, and Sika-Trocal can proudly claim its place as part of the largest single ply roofing manufacturer in the world with 4 factories in Europe, 2 in the Peoples Republic of China and one in the USA.



# Electronic Copy

Fig.6 Trocal S covering system  
agreement certificate

CI/SIB

(47) Ln6



Designated by Government  
to issue  
European Technical  
Approvals

## Sika Ltd

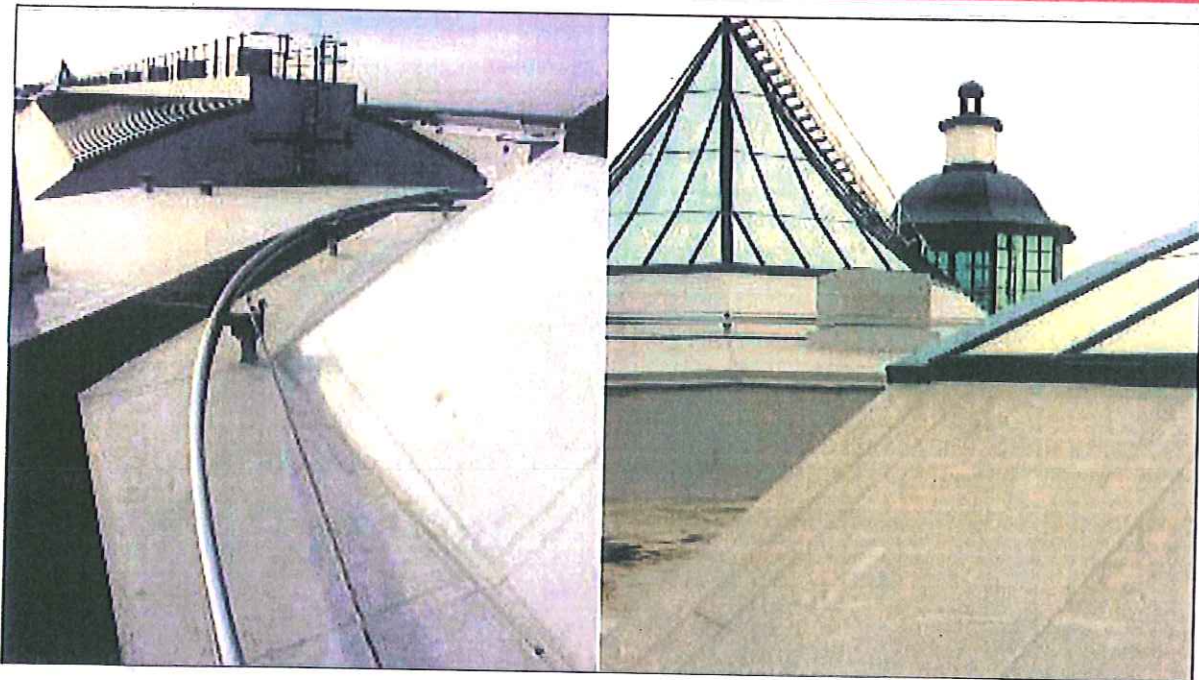
Watchmead  
Welwyn Garden City  
Hertfordshire AL7 1BQ  
Tel: 01707 394444 Fax: 01707 329129  
e-mail: technical@uk.sika.com  
website: www.sika.co.uk

**Agrément  
Certificate  
No 95/3092**  
Fourth issue\*

## TROCAL S PVC ROOF COVERING SYSTEM

Revêtement d'étanchéité  
Dachabdichtungen

### Product



- THIS CERTIFICATE REPLACES CERTIFICATE No 89/2273/C AND RELATES TO THE TROCAL S PVC ROOF COVERING SYSTEM.


- The product is for use as a mechanically fixed waterproofing layer on pitched, flat and curved roofs with limited access.

- The product is manufactured in Germany by Sika AG and marketed in the United Kingdom by the Certificate holder.

- Installation must be carried out only by installers trained and licensed by the Certificate holder.

## Regulations

### 1 The Building Regulations 2000 (as amended) (England and Wales)

 The Secretary of State has agreed with the British Board of Agrément the aspects of performance to be used by the BBA in assessing the compliance of roof waterproofing membranes with the Building Regulations. In the opinion of the BBA, the Trocal S PVC Roof Covering System, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements.

Requirement: B4(2)

Comment:

External fire spread

Data obtained to BS 476-3 : 1958 indicate that on suitable substructures the use of the system will enable a roof to be unrestricted by this Requirement. See sections 11.1 and 11.2 of this Certificate.

Requirement: C2(b)

Comment:

Resistance to moisture

Tests for water resistance on the membrane, including joints, indicate that the material meets this Requirement. See section 8.1 of this Certificate.

Requirement: Regulation 7

Comment:

Materials and workmanship

The membrane is an acceptable material. See section 13 of this Certificate.



# Introduction

Rigidal Ziplok is a zip-up standing seam roofing system, which is manufactured on one of three state-of-the-art roll former's either in our factory or on site. Only site restrictions and the ability to handle them limit the lengths produced by site rolling. Rollforming is possible also at eaves height on site.

The Rigidal Ziplok system is available in 0.7mm gauge colour coated steel or 0.9mm / 1.2mm gauge aluminium. Besides supplying the latter in plain mill finish or stucco embossed, other finishes and colours are available to add to the overall aesthetic appeal of the roof application as well as prolonging the life of the sheet. Rigidal Ziplok is also available in aluzinc, stainless steel, zinc or copper. For further information on these substrates please contact our Technical Department.

The sheets are pushed onto the aluminium halter brackets and then 'zipped-up' using a special tool.

This design eliminates through fix fasteners and the need for end laps by incorporating full-length sheets to run from ridge to eaves (eaves to eaves on curved roofs), therefore making water penetration virtually impossible even when laid at extremely shallow pitches.

## Halters

The halter brackets are available in two different materials.

- 1) A unique pultrusion with an extruded aluminium base. This Thermohalter can be used in the traditional Rigidal Ziplok System without cold bridging through the system.
- 2) Traditional aluminium extrusion for use with the Corogrid bar and bracket system.

Whilst Bar & Bracket systems used with traditional halters meet full compliance with current regulations they only

do so because the current regulations allow widespread brackets to be omitted from calculations. The Thermohalter is the next generation of halter to ensure continued compliance when the regulations change as undoubtedly they will.

## Profiles

The Rigidal Ziplok system is available in 65mm deep sheets of three cover widths:

<b>Ziplok 300</b>	Offers an exceptional load carrying capacity due to the narrow pan width, and is particularly suited to tight curves
<b>Ziplok 400</b>	Most popular and cost effective system
<b>Ziplok 500</b>	Due to the wide pan, full support is required by incorporating a more dense slab type of mineral wool insulation to prevent bowing of this pan.

## Roof Pitch

Because of the true standing seam concept of the Rigidal Ziplok system the following pitches may be maintained:

Continuous sheet ridge to eaves	1.5°
Welded end lap joint	1.5°
Welded roof penetrations	1.5°
Laid in rooflights ridge to eaves	1.5°
Rooflights lapped onto Ziplok	>4.0°
End lap joints with sealants and fixings	3.0°

**NB. Above falls must be achieved after consideration of loadings and deflection. Ensure gutter straps and edge flashing details at the eaves do not reduce the above roof pitches to avoid ponding of water at the sheet edge**

# Properties

## Aluminium Rigidal Ziplok

Rigidal Ziplok sheets are manufactured from aluminium alloy of the 3000 series containing magnesium and manganese for increased strength and durability.

The alloy is designated as:

- EN AW- 3004 H14 (Al Mn1 Mg1) or
- EN AW- 3105 H25 (Al Mn 1 Mg 0.5): to BS EN 485-2 : 1995.

Ultimate tensile strength being 200N/mm<sup>2</sup>.

## Steel Rigidal Ziplok

The substrate used is hot dipped galvanised steel with a coating mass of 275g/m<sup>2</sup> and a minimum yield strength of 220N/mm<sup>2</sup> to BS EN 10147.

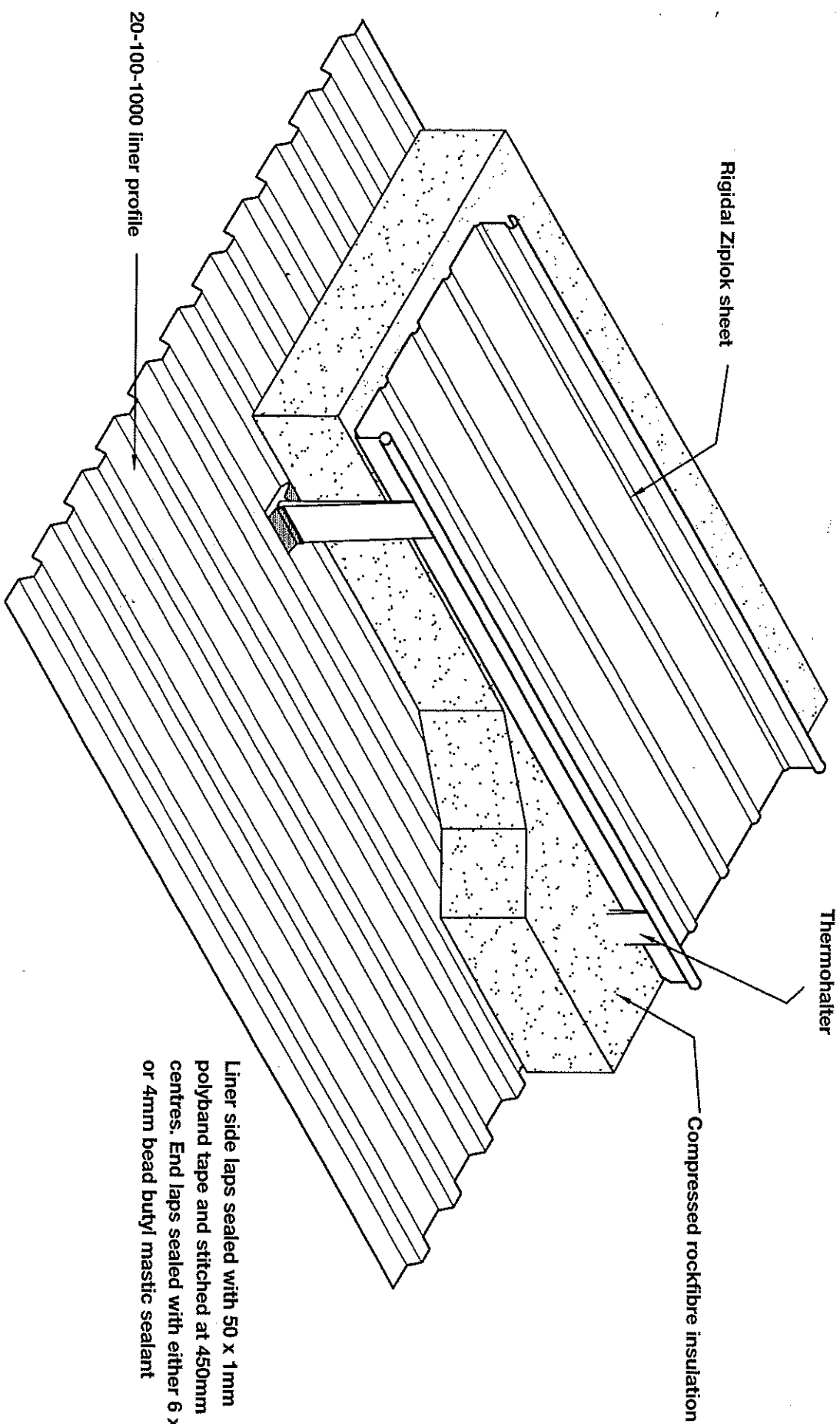
## The Table below Shows Comparison of Basic Properties of Both Metals

Material	Density (kg/m <sup>3</sup> )	Modulus of Elasticity (kN/cm <sup>2</sup> )	Thermal Conductivity (W/m°C)	Thermal Expansion in mm per°C	Melting Point (°C)
Aluminium	2705	6900	214	24 x 10 <sup>-6</sup>	650
Steel	7850	21000	55	12 x 10 <sup>-6</sup>	1900

For properties of Aluzinc, Stainless Steel, Zinc and Copper contact Rigidal Technical Department

# RIGIDAL ZIPLOK GENERAL CONSTRUCTION - THERMOHALTER SYSTEM

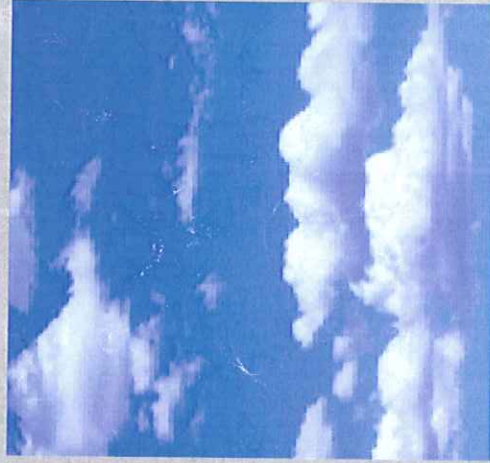
ZL 105





# VITRAL Glazed Roof System

Now also available in brushed stainless steel  
Technical Details



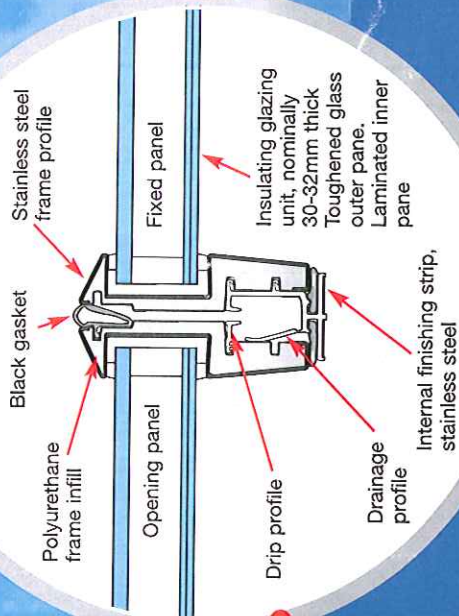
**VITRAL<sup>®</sup>**

- bringing the outside in

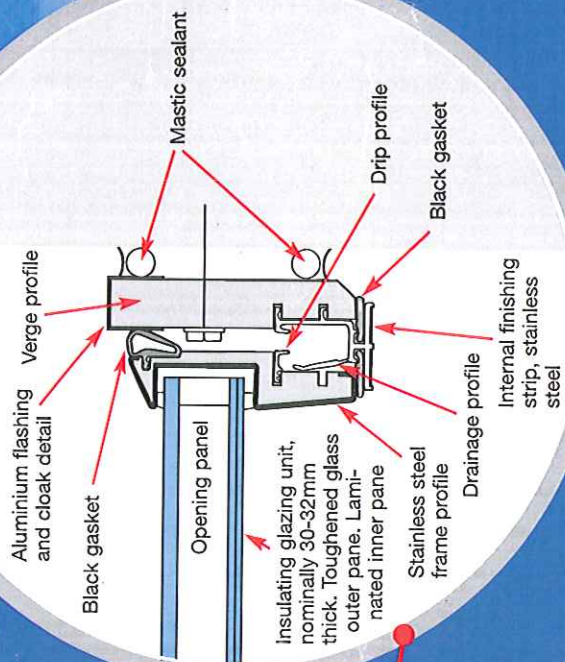


# ails

## Panel Side Frame



## Verge Detail

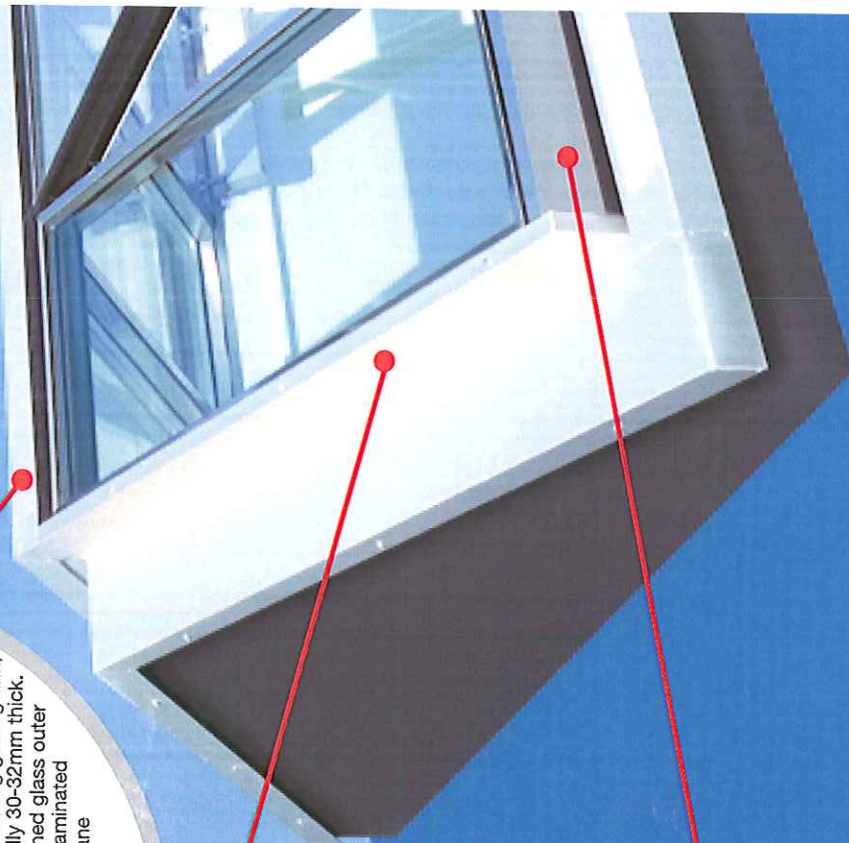


## Opening panels

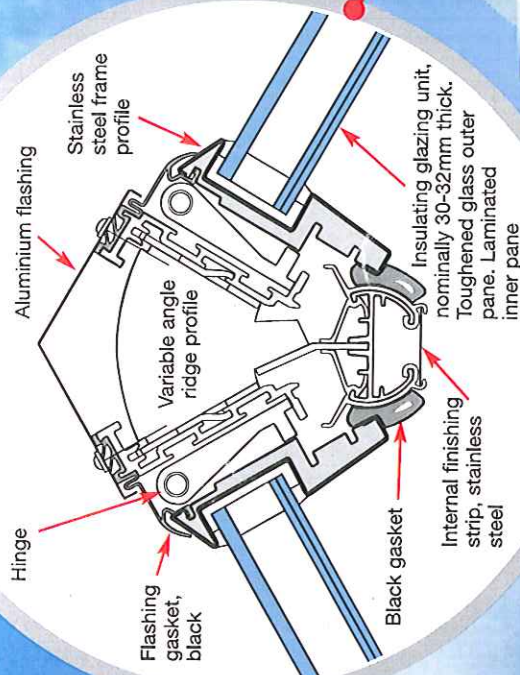


No increase of the frame profile for opening panels, which are flush when closed  
Outward opening for comfort ventilation and/or smoke exhaust  
Opening facilitated simply by adding a push bar and two screws

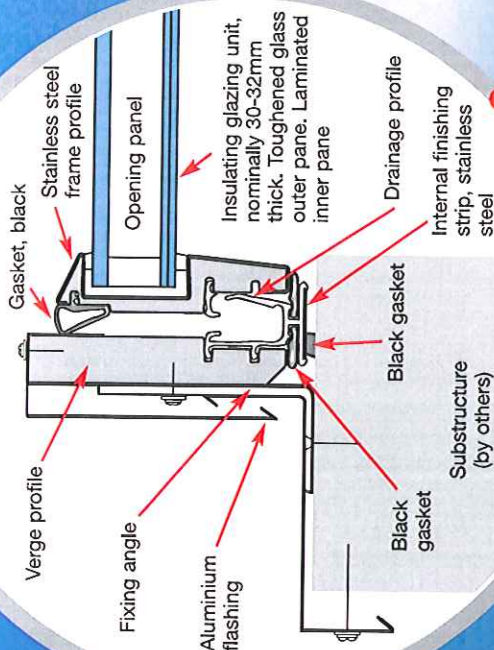




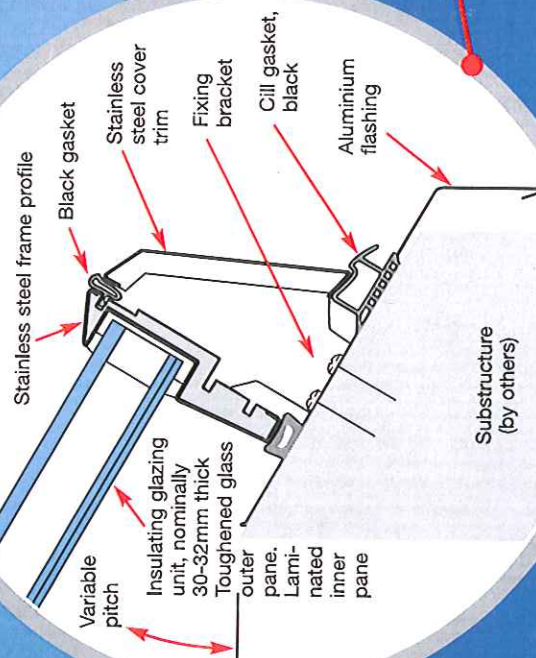
## Integral Ridge Assembly



## Verge or Gable Detail



## Cill Detail





# Features and Benefits

## Terrific U-value

(one of the lowest on the market)

- 2.0 W/m<sup>2</sup>K for the frame profile
- Using a Super Low E glass with a 1.1 mid-pane value, you will achieve an overall U-value of approx. 1.45 W/m<sup>2</sup>K
- Excellent for internal climate control
- Available for applications not previously possible
- Energy saving

## Brushed stainless steel

- Elegant, aesthetically desirable profile
- Superior quality
- Great strength for infinite applications
- Long life
- Low maintenance
- Non-corroding Stainless Steel (Occasionally, air-borne rust particles may contaminate the steel. These deposits can be cleaned from the surface)

## Great spanning capability

- Self-supporting double pitches in excess of 5m base span
- Slender, elegant side framing - just 48mm
- Minimal framing maximises light penetration
- Enhance your architecture with the range of options

## Variable pitch

- Large degree of design flexibility

- Variable angle, self-supporting double pitch rooflights
- Supported glazing down to 15°
- Integral opening panels down to 15°

## Fully integrated opening panels

- Flexible – simply add a push bar and two screws to facilitate opening
- No increase to the slender panel framing ensures attractive solution
- Flush when closed
- Automatic opening available for comfort ventilation and/or smoke exhaust
- Entire panel opens to maximise efficiency of vent area

## Beautiful solutions

- Lightweight and unobtrusive framework will enhance your designs
- As the material of our time, stainless steel blends elegantly with other materials. Often preferred when good ideas and successful projects are to be realised
- Wide choice of standard 3M colour films or brushed Stainless Steel finish
- Well-designed junctions and flashings

## Wind and weather tight

- Tested for water- and air-tightness
- Incredible thermal efficiency

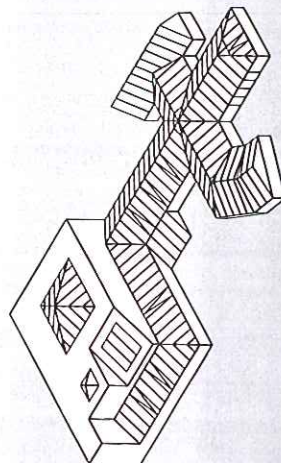
- UV-resistant materials
- External EPDM gaskets
- Integral condensation drainage channels

## Economical prefabrication and installation

- High quality is ensured by sealing the glazing into the frame in the factory
- Prefabrication means site installation is quick & safe
- Crane and scaffolding costs are minimised
- Earlier completion reduces costs
- Trained Approved Specialist Contractors provide nationwide coverage

## Varied configurations

- VITRAL roof glazing offers many possibilities for bringing your ideas to life



- Single pitch or double pitch
- Gables, hips, valleys and pyramids
- In-laid rooflights
- Single or multiple tier
- Integrated opening vents

## Advice, technical support and services

- Images of previous schemes to assist development of ideas
- Principle detail drawings
- Budget cost guidance
- Project calculations for panel sizes and glass thickness
- Guide lines for supporting structure, including imposed kerb loadings
- Vent area calculations
- Specification writing service
- Trained Approved Specialist Contractors provide nationwide coverage
- Tendering stage support through TASC network
- Design and delivery programming
- Operation and maintenance manuals



# VITRAL®

- bringing the outside in





# Lonsdale Design Guide

## Introduction

This Design Guide has been produced to assist specifiers and designers by illustrating typical installation details for sloped and vertical patent glazing. It is not exhaustive, but it does illustrate good practice for most applications and all details are in accordance with BS5516 for the design and installation of sloped and vertical patent glazing.

Users of this guide must exercise all reasonable care to ensure that the details and products of Lonsdale Metal Company Limited are suitable for the intended purpose. If in doubt, ask us. Having decided to specify Lonsdale Patent Glazing, to save you valuable drafting time, CAD drawings of typical installation details are available on disk or from our website : [www.roofglazing.co.uk](http://www.roofglazing.co.uk)

If you require assistance please contact our Technical Department.  
Lonsdale Metal Company Limited,  
Millmead Industrial Centre, Mill Mead Road, London. N17 9QU  
Telephone : 020 8801 4221 Facsimile: 020 8801 1287

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Drawings & CAD Code Index	10 to 13		

PRINT OUT THIS DESIGN GUIDE FOR REFERENCE IF YOU WISH.  
CLICK THE **Pages** TAB TO SEE THUMBNAILS OF ALL THE PAGES IN THE PUBLICATION.  
TO PRINT OUT INDIVIDUAL PAGES, CLICK **File, Print** THEN CHECK **Current page**  
OR SELECT **Pages** RANGE AND CLICK **OK**. TO PRINT DRAWINGS TO THE SCALE INDICATED  
YOUR PRINT DRIVER MUST BE CAPABLE OF BEING SET AT 100%. LOOK IN YOUR PRINTER'S  
**Properties** FOR SETTINGS. CONTACT OUR TECHNICAL DEPARTMENT FOR FURTHER ADVICE.

# Technical Summary

## Patent Glazing Bars

### Specification

Glazing Bars, Cappings, Beads and Fittings are extruded aluminium alloy 6063-T6 to BS1474. Fasteners provided are either stainless steel to BS304515 Grade A2 or mild steel bright zinc plated. Gaskets are extruded Thermo Plastic Rubber quality 98625 to BS4255:Part1:1986 Grade C.

### Performance

All systems are designed to conform with the requirements of BS5516 when installed within the manufacturers recommendations. A guide to maximum spans is given on pages 4 & 5 of the Design Guide and should be referred to prior to planning an installation.

### Fixing

Fixing to timber is directly through the channels at the top of the glazing bars with two No. 10 x 1.5 inch bright zinc plated wood screws and a sliding shoe with wood screws at the bottom end. Fixing to metal is with M8 Single Hole Fixing Shoes positively fixed at the top and sliding at the bottom end. Dissimilar metals should be isolated to avoid bi-metallic corrosion

### Appearance

Materials are supplied Mill Finished as standard. A range of architectural finishes is available including polyester powder coating to BS6496 in standard RAL or BS colour ranges.

### Ventilation

May be achieved either through GlazaTherm, our top hung roof ventilator, or by casement vents in vertical applications. Various factory fitted opening mechanisms are available including manual, pole or cord operated, electrical, thermostatic or smoke activated controls.

### Infill

All popular specifications can be accommodated including 6 / 7mm Single Glazing, 24mm and 28mm Double Glazed Sealed Units or 10mm, 16mm or 25mm Polycarbonate Sheeting. Other infills should be discussed with our technical department. Double Glazed combinations should feature a suitable "step" to the bottom edge to avoid thermal breaking.

### Building Regulations

Please visit our website [www.roofglazing.co.uk](http://www.roofglazing.co.uk) for guidance and compliance with the Regulations relating to fire, non-fragility, thermal and air-tightness performance.

Continued page 7



## Technical Summary - continued

### SpanGard - Self supporting roof-lights

#### Geometry and Dimensions

Pyramids, rectangles, hexagons, octagons and polygons are all possible within the boundaries of regular geometry. Standard roof pitches are from 22.5° in 5° increments to 45°. Roof lights may be manufactured to infinite length with a width restriction up to 6000mm subject to infill and roof pitch.. Vertical up-stands on Lantern lights are approximately 500mm high as standard, but other heights may be incorporated on request. Special commissions for irregular shapes, sizes and pitches should be discussed with our technical department.

#### Specification

Fabricated from the ThermGard series patent glazing system incorporating extruded aluminium alloy 6063-T6 Ridge, Hip, Eaves, Cill, and Flashings to BS1474. Supplied in component form for assembling on site to form entirely self-supporting structure. All joints are TIG welded or mechanically jointed with spigots and stainless steel fasteners to BS304515. Gaskets are extruded Thermoplastic Rubber quality 98625 to BS4255:Part 1 Grade C.

#### Performance

SpanGard is designed to conform with the requirements of BS5 516 when installed within manufacturers recommendations.

#### Thermal Break

If required a thermally improved option is available. Please contact our technical department for further details.

#### Appearance

Materials are supplied Mill Finish as standard. A range of architectural finishes is available including polyester powder coating to BS6496 in standard RAL or BS colour ranges.

#### Ventilation

May be achieved either through GlazaTherm, our top hung roof ventilator, or by casement vents in the up-stands of Lantern lights. Various factory fitted opening mechanisms are available including manual, pole or cord operated, electrical, thermostatic or smoke activated controls.

#### Infill

All popular specifications can be accommodated including 6 / 7mm Single Glazing, 24mm or 28mm Double Glazed Sealed Units or 10mm, 16mm or 25mm Polycarbonate Sheeting. Other infills should be discussed with our technical department. Double Glazed combinations should feature a suitable "step" to the bottom edge to avoid thermal breaking.

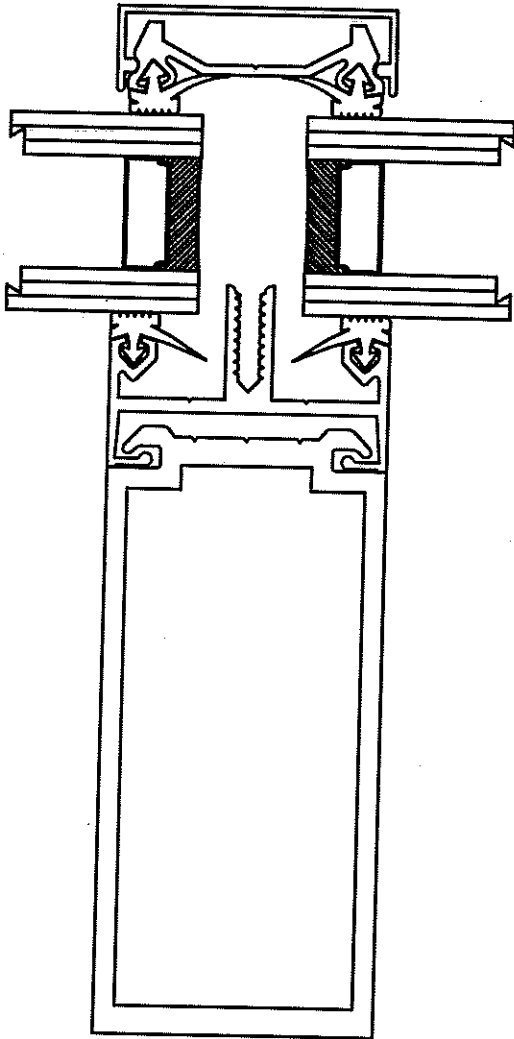
#### Fixing

Must be carried out using a suitable fastener to a structural curb capable of withstanding the relevant imposed self-weight, wind and snow loads without spread or movement

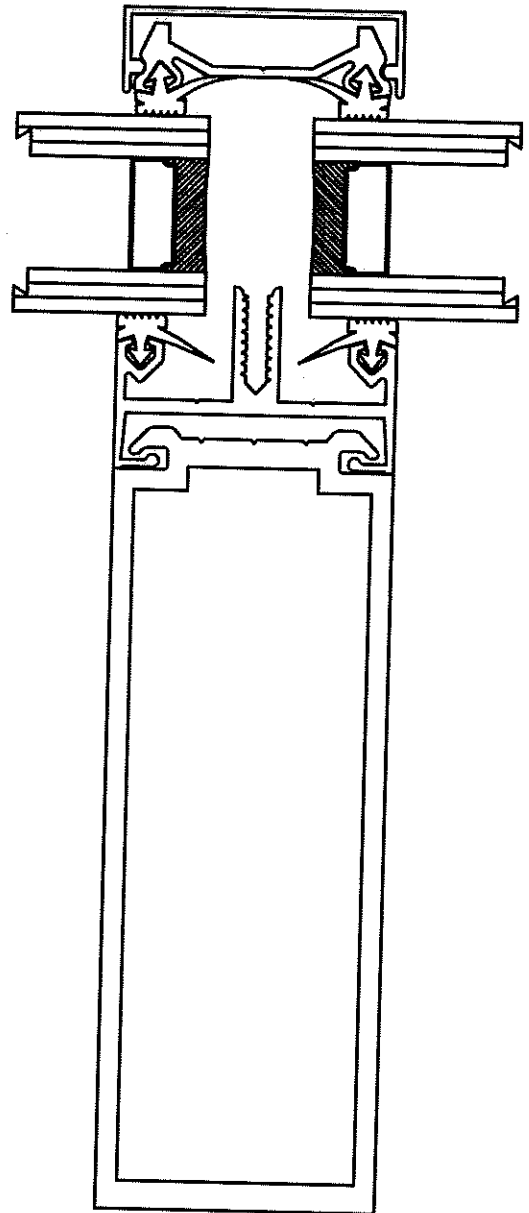
#### Building Regulations relating to SpanGard

Please visit our website [www.roofglazing.co.uk](http://www.roofglazing.co.uk) for guidance and compliance with the Regulations relating to fire, non-fragility, thermal and air-tightness performance.

ALM100/3 Profile  
CAD Code ALM1003



ALM100/4 Profile  
CAD Code ALM1004



Scale of all profiles 1:1.