

# SIKA ROOFING TECHNICAL SPECIFICATION



## MOCT Studio - London

PROJECT: 35 High Holborn

PROJECT REF: 0517571-A

DATE: 17 March 2025

**BUILDING TRUST**



# INTRODUCTION

Sika Limited · Watchmead · Welwyn Garden City · AL7 1BQ · United Kingdom

**BUILDING TRUST**



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**CONTACT**  
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Area Technical Manager - Sika Limited  
+44 7834104697  
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17 March 2025  
Reference: 0517571-A

Dear Christopher Thorn

Further to the site visit, this document has been compiled for your attention by Tony Conroy of Sika Limited. The information contained within, is an observation of the existing condition of the roof(s) as seen at the time during the inspection. This document should be read in conjunction with the corresponding Sika Roof Condition Report.

Please find enclosed the proposed specification for the roofing works at the above named project. Contained within the specification you will find comprehensive information regarding the proposed roof build up(s), detailing, general conditions, guarantees, workmanship and maintenance.

**This specification is valid for 12 months from the date shown above, after which all associated documents should be reviewed by Sika Limited to ensure that the proposed solution remains fit for purpose.**

Any variations to this specification must be confirmed by Sika Limited to ensure suitability of the proposed change. Sika Limited retain the right to alter our product specifications in line with our available product portfolio and in accordance with relevant national and international standards without notice.

**Design** - This specification includes project specific information including design information and is further supported by Sika Limited's professional indemnity insurance. Sika Limited endeavour to supply accurate and quality advice on every project.

**CDM Regulations** – Please note that Sika Limited does not fulfil the role of the Principal Designer and therefore preparation for the proposed specification and subsequent works should only commence when all parties involved with the design and execution of the works are satisfied the appropriate CDM regulations have been fulfilled

**Downloads** – For more information, please feel free to visit our website for the downloads of any related documentation such as;

[Standard Details](#) | [Product Datasheets](#) | [Safety Datasheets](#) | [BBA Certificates](#) | [Brochures](#) | [Case Studies](#)

**Fire Testing** - Our most common roof assemblies have been tested by UKAS accredited bodies to CEN/TS 1187, achieving classification of Broof(T4) in accordance with EN 13501-5. Extended scope of application (ExAp) has also been independently determined using CEN/TS 16459 to cover a range of possible project-specific system permutations . Copies of individual system test certificates are available upon request.\*

\*relates to standard system constructions only – for clarity please contact Sika Roofing Technical Services.

**Sika Solutions** – Have you considered any other Sika products for this project? From the basement to the roof, Sika provides an entire range of solutions;

[Waterproofing](#) | [Flooring](#) | [Concrete](#) | [Concrete Repair](#) | [Coatings](#) | [Facades](#) | [Passive Fire Protection](#) | [Joint Sealing](#) | [Structural Strengthening](#)

I hope we have properly understood your requirements, however If we can be of further help on this, or any other project, please contact me directly.

Kind regards

Tony Conroy  
Area Technical Manager

Oliver Dye  
Technical Services Advisor

## CONTACT SHEET

**Prepared for:** MOCT Studio  
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8 Andrews Road  
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**For the attention of:** Christopher Thorn  
**Email:** ct@moctstudio.com

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**Site:** 35 High Holborn  
35 High Holborn  
  
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WC1V 6AE

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**Prepared by:** Tony Conroy - Area Technical Manager  
**Telephone:** +44 7834104697  
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**Date:** 17 March 2025

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# 1 0517571 EXPOSED ROOF AREA TECHNICAL SPECIFICATION

## 1.1 DISCLAIMER

This specification is intended to provide information solely relating to proposal(s) for a new roof, or the refurbishment of an existing roof. The information has been compiled using due care, skill and diligence, however the following points should be noted;

- i. This document is provided freely and in good faith based on the information provided to Sika Ltd by the user at the time of writing. This specification is deemed to be valid for a period of **12 months** from the date of issue, after which all documents should be reviewed by Sika Ltd to ensure that the proposed solution remains fit for purpose. Sika Ltd accept no responsibility for user errors, inaccuracies or omissions of the information provided to Sika.
- ii. Any alteration or variance to the proposed design, products or systems listed in the specification must be agreed by Sika Ltd in writing before works begin.
- iii. It must be noted that our proposal(s) include measures to ensure that any standing water is minimised where possible. Due to working on an existing structure however, the possibility that any standing water may occur due to the lines and levels of the existing building still exists and Sika Ltd can accept no liability in this regard.
- iv. Sika Ltd offer no guarantee nor accept any liability for the condition or performance of either the new or existing structural deck, any retained or existing elements of the building, or the existing roofing system. For advice on the suitability of a structural deck further information should be sought from a suitably qualified person.
- v. It is the responsibility of the installing contractor, to review this specification and all relevant documentation relating to the project and undertake any additional site visits to familiarise themselves with specific on-site conditions or limitations that may have impact on the works.
- vi. Where the roof waterproofing works form part of a wider construction project, the Architect or design professional should be consulted to confirm the suitability of this specification when considered in the context of the whole construction project.

## 1.2 SYSTEM SCHEDULE

COMPONENT	PRODUCT
Substrate Primer	SikaRoof® Primer-610 Spray
Air & Vapour Control Layer	S-Vap 5000 E SA
Insulation Attachment	Sika® C-250 Spray
Insulation	Sikatherm® PIR GT T
Waterproofing Attachment	SikaRoof® Adhesive-400 Spray
Waterproofing Membrane	Sikaplan® SGK-18
Accessories	Sikaplan® Walkway-20

## 1.3 SPECIFICATION DETAILS

Specification Details: Exposed Roof Areas	
Roof size (m2):	<b>500</b>
Roof height (m):	<b>18</b>
Degree of Roof Pitch (°):	<b>&lt;5</b>
Profile of Roof:	<b>Flat</b>
Hipped:	<b>No</b>
Longest Building Length (m):	<b>30</b>
Type of eaves:	<b>Kerb</b>
Building use:	<b>COMMERCIAL</b>
Humidity class:	<b>3</b>
U Value:	<b>0.18</b>
The criteria above must be checked by the Specifier. The Sika Roofing Technical Department should be notified of any discrepancy.	

## 1.4 WIND LOADING

### 1.4.1 WIND LOADING CALCULATION



Wind load calculations have been carried out in general accordance with BS EN 1991-1-4, UK National Annex Method, using the criteria stated within the Sika Limited project specification.

The following criteria must be checked by the Specifier. Sika Limited should be notified of any discrepancy.

Grid Reference/Postcode:	WC1V 6AE
Basic Wind Speed $V_b$ (m/s 10min):	21.6
Altitude Factor $C_{alt}$ :	1.023
Orography Factor $C_o$ :	1.000
Exposure Factor $C_e$ (sqrt):	1.556
Direction Factor $C_{dir}$ :	1.000
Peak velocity pressure $q_p$ (kPa):	0.594

External pressure coefficients ( $C_{pe}$ ), internal pressure coefficients ( $C_{pi}$ ) and partial safety factors ( $\gamma_q$ ) have been applied to the peak velocity pressure to calculate maximum loadings ( $W_{tot}$ ) for the applicable roof zones.

Central Zone:	<b>0.882</b> kN/m <sup>2</sup>
Perimeter Zone:	<b>1.763</b> kN/m <sup>2</sup>

Roof zone widths have been calculated in accordance with BS EN 1991-1-4 and the UK National Annex Method, using the criteria stated within the Sika Limited project specification.

Perimeter Zone:	Minimum width 3000mm
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**Note:** Any additional fastening requirements for the perimeter zone should be installed to the zone width stated above. This may result in additional fastening beyond this dimension.

## 1.5 THE CODE FOR CONSTRUCTION PRODUCT INFORMATION (CCPI)





The Code for Construction Product Information (CCPI) was created to promote an urgent and positive culture and behaviour change in the way the construction product manufacturing industry manages and provides information on their products. The CCPI was initiated by the Construction Product Association (CPA) as a direct response to Dame Judith Hackitt's review of Building Regulations and Fire Safety set up in the wake of the Grenfell Tower tragedy.

There are 11 Clauses within the CCPI assessment which cover a wide range of matters from responsibility for product information, to transparency of performance, proof of stated claims, general information and competency. The CCPI is built around five 'acid tests' - product information must be 'Clear, Accurate, Up-to-date, Accessible and Unambiguous'. The 11 clauses are also underpinned by a requirement to demonstrate the highest levels of integrity, ethics, leadership and culture around product information governance and competence.

The Code for Construction Product Information (CCPI) will help organisations drive higher standards in the presentation of construction product information, prioritising building safety.

Whether written in a specification, brochure, a presentation, on a website or social media, the CCPI will seek to provide assurance that users of product information have the necessary facts when making decisions about specifying or installing their verified products.

The CCPI will assure independent and robust verification, working to build more confidence with the public and external stakeholders and setting the market for UK construction products ahead of others.

## 1.6 EXISTING BUILD-UP & PREPARATION

**Existing Roof Build-up** - The existing roof build up is believed to be as shown below. However should this be found not to be the case, Sika Limited should be consulted as this is likely to effect the specification.

## Concrete deck

**Existing Roof Preparation** – Remove all finishes back to the existing structural deck and carefully check its condition. Only strip as much as can subsequently be made watertight in the same day. Repair or replace the structural deck as instructed by the Supervising Officer.

**Existing Services** - The client or client's representative should ensure that the necessary checks are carried out prior to commencement of any works, to ensure that there are no existing services, electrical cables, pipes etc, secured to, or installed directly beneath the existing structural deck. Should this be found to be the case, the Roofing Contractor and Sika Limited should be notified immediately as this may require an alteration to the proposed specification.

## 1.7 SUBSTRATE PREPARATION

**Primer** - Prime the substrate fully with SikaRoof® Spray Applied Primer 610 and allow to dry, prior to installing the specified self-adhesive air & vapour control layer.

SikaRoof® primer should be applied in accordance with Sika Limited installation instructions and is not suitable for use in temperatures below 5°C.

## 1.8 HUMIDITY CLASSIFICATION

**Humidity Classification** - In accordance with BS 5250:2021 Management of Moisture in Buildings - Code of Practice (Table 12), the specified roof system is based on **Humidity Class 3**.

Should a different humidity classification be required for this design, Sika Limited should be notified as this may result in a change to the specification of the AVCL, insulation or fastening requirements.

## 1.9 AIR & VAPOUR CONTROL LAYER

**S-Vap 5000E SA** - To form a high performance air & vapour control layer, install S-Vap 5000E SA foil faced, reinforced, self adhesive backed bituminous membrane in accordance with the Product Data Sheet.

The full area should be pressed into place immediately after adhering, using a water filled pressure roller or similar. All side laps (min 75mm) and end laps (min 75mm) should be fully supported and continuously sealed in accordance with the Product Data Sheet. To achieve tightly sealed joints the laps must be rolled down firmly with a pressure roller (silicone roller) or by applying pressure. The air & vapour control layer is to be sealed to the abutment at the perimeter of the roof and around all penetrations. The surface of the abutment should be smooth enough to allow an adequate airtight seal of the air & vapour control layer.

**S-Vap 5000E SA can be used as a temporary waterproofing layer for up to 4 weeks in accordance with the Product Data Sheet. When using as a temporary waterproofing layer for a prolonged period, prime the substrate using SikaRoof® Spray Applied Primer 610 or SikaRoof® Primer-600 UK.**

Minimum application temperatures quoted in the Product Data Sheets should always be adhered to. Temporary localised arrangements for heating the substrate and/or the surface of the membrane with the use of warm air equipment is acceptable to keep the application surface at a reasonable working temperature - provided always that the methodology and equipment used do not heat the surface or material excessively and importantly are acceptable to the client for use in the area. Careful consideration should be given to the use of any hot works and this should only be adopted where no other option exists with the work conducted in accordance with regulatory requirements and NFRC safe2torch-guidance.

## 1.10 INSULATION

Install Sikatherm® insulation in accordance with the Sika Limited project specification and Product Data Sheet to achieve the required U-value of **0.18Wm<sup>2</sup>K**.

**Tapered Sikatherm® PIR GT Insulation** - Install **1 in 60 tapered** Sikatherm® PIR GT CFC and HCFC free polyisocyanurate insulation providing zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP). The insulation is to be in accordance with BS EN 13165 and the SPRA Design Guide.

Sikatherm® insulation is to be maximum 1200mm x 1200mm and bonded to the air & vapour control layer using **Sika® C-250** spray applied adhesive (**use SikaRoof® Primer-600 UK when necessary, if in doubt an adhesion test should be carried out**). Ensure the substrate is dust free and has a non-friable surface. The wind uplift calculated for this roof with a **smooth** substrate requires the **Sika® C-250** to be applied in minimum **30mm** wide liquid beads in straight lines at **250mm** equal centres in the **central zone** and at **166mm** equal centres in the **perimeter zone**, all in accordance with the Sika Limited guidelines.

Alternatively use **SikaRoof® Adhesive 200** (**use SikaRoof® Primer-600 UK when necessary, if in doubt an adhesion test should be carried out**) and apply in minimum **10mm** wide liquid beads in straight lines at **250mm** equal centres in the **central zone** and at **166mm** equal centres in the **perimeter zone**, all in accordance with the Sika Limited guidelines.

**Please note that the application of SikaRoof® Adhesive 200 is limited to a maximum roof pitch of 10°**

Sika Limited accepts no responsibility for the use or consequences of failure of any insulation adhesive other than appropriate Sika products. All board joints to be lightly butt jointed and level. All board ends must be supported by the structural deck.

The minimum thickness and average U-value is to be determined by the Specifier.

Tapered insulation is designed to drain water from flat roof areas as efficiently as possible. It cannot, however, be guaranteed that drainage efficiency will be achieved, due to building and construction tolerances, and there may be some local standing water after rainfall. In such cases the waterproofing integrity remains unaffected and the guarantee remains valid.

When using Sarnacol 2170 or SikaRoof® Adhesive-400 Spray applied it is not a technical requirement to cover all Sikatherm® board joints with self-adhesive aluminium tape. However, please note that when using non-fleece backed membrane omitting the tape may increase the 'ghosting' of the insulation board joints through the membrane.

Where applicable the uniform thickness packer boards are to be to the same specification as the tapered top insulation boards.

**Note:** For the Sika Limited guarantee to include the insulation, the specified Sikatherm® boards must be installed.

**Bonding Multiple Layers of Insulation** - When installing multiple layers of bonded insulation use Sika® C-250 spray applied adhesive or SikaRoof® Adhesive 200 to the same application rate as required to bond the insulation to the air & vapour control layer. Due to the foaming rate of the adhesive and it being subject to atmospheric conditions, consideration should be given to the potential rising of the insulation boards. A water filled roller can be used to consolidate the bond.

Sarnacol 2142V adhesive can be used but should be applied to the whole bonding area. Due to the low rise foaming of Sarnacol 2142V this adhesive may not be suitable due to the tolerances in insulation boards and the subsequent risk of an insufficient bond being achieved.

**Note:** When using two or more Sikatherm® PIR GT insulation boards with a mineral glass facing it is necessary to use a greater combined thickness than the equivalent required for a given U-value with a single board.

## 1.11 WATERPROOFING SYSTEM

### 1.11.1 WATERPROOFING PROPOSAL

Sikaplan® SGK is a multi-layer, synthetic roof waterproofing sheet based on premium-quality polyvinyl chloride (PVC) with inlay of glass non-woven and polyester fleece backing according to EN 13956, for use in exposed adhered roof waterproofing applications

Sikaplan® and its associated products are fully certified and accredited by the British Board of Agrément.

## 1.11.2 WATERPROOFING APPLICATION

### 1.11.2.1 ROOFING - SIKAPLAN® SGK

Adhere Sikaplan® SGK-18 Lead Grey roofing membrane to the insulation board using SikaRoof® Adhesive-400 Spray membrane adhesive in accordance with the Product Data Sheet.

**Note:** *SikaRoof® adhesives are not suitable for use in temperatures remaining below 5°C for prolonged periods.*

When using SikaRoof® 2142 V and/or SikaRoof® C-300 and/or SikaRoof® Adhesive 500, allow a short period of time before laying the waterproofing membrane into the adhesive to allow for the absorption of moisture and the adhesive to react. If this does not occur over-mist with water. SikaRoof® 2142 V and SikaRoof® C-300 membrane adhesives are not suitable on roof pitches >10° without additional restraints.

In the main area of the roof use a weighted roller (minimum 50kg) to ensure that the membrane achieves intimate contact with the insulation board. For sloping, vertical and detail work a lambswool roller should be used.

**Overlap subsequent sheets by the width of the selvedge and heat weld all side laps using a hand welding machine or automatic welding machine.** Prior to welding, it is essential to chamfer the leading edge of all transverse/cross joints.

Sikaplan® SGK roofing membrane is butt jointed at roll ends and weathered with **Sikaplan® G-15** or **Sikaplan® SG-15** coverstrip, hot air welded on either side.

Install Sika Limited **S-Peelstops**, or an alternative approved fixing method, to the perimeter of the roof, at all internal angles and around all roof penetrations in accordance with Sika Limited Technical details. S-Peelstops should be fastened into the structural deck where possible, fixed at **maximum 250mm centres** with Sika Limited SBT thermally broken tubes and BS-S stainless steel fasteners.

**Note:** *The fasteners stated above are based on the structural deck specified within the Sika Limited project specification. If fixing into alternative substrates please consult Sika Limited. When fixing into upstands, kerbs or other substrates, ensure these are suitably fixed to the structure.*

The fasteners must penetrate and project below a metal or timber deck by a minimum of 15mm (minimum 20mm if the metal deck has a stiffening rib) or have a minimum embedment of 25mm into a concrete deck.

Thermally broken fasteners must be installed with the appropriate tooling and the membrane must be pre-punched with the Sika Limited membrane punch tool.

**Detailing – Mechanically fasten Sikaplan® G-15 roofing membrane and/or adhere Sikaplan® SG-15**

detailing membrane in accordance with Sika Limited Technical details.

**Note:** For mechanically fastened detail work, an alternative method of restraint may be required to upstands and perimeters. Consult Sika Limited.

For specific detailing, **Sikaplan® D-18** can be installed. Refer to Sika Limited Technical details.

**Upstands** – Careful consideration should be given to the method of attachment of the insulation and waterproofing for upstands. Adhered upstands provide a very smooth and aesthetically pleasing finish, however where high upstands occur, adhering single ply can sag over time, leading to aesthetic issues.

For adhered upstands Sika Ltd recommend that they are limited to 400mm in height and If they exceed 400mm, then additional mechanical restraints will be required.

Any mechanically fastened upstands installed between 800-1100mm also need to be lap fixed to provide additional support.

When using Sikaplan G/SGK membranes >1.5mm thick, prior to welding, it is essential to chamfer the leading edge of all transverse/cross joints in accordance with the recommendations for Sarnafil systems.

## 1.12 GENERAL DETAILING

Detail work generally is to be in accordance with the appropriate Sika Roofing standard details including published technical advice/recommendations and the Specifier's project drawings.

The following items should be considered;

**Health & Safety/Access** – Sika Roofing walkway tiles are recommended for known access routes across the roof and the **Sika Roofing Constant Force Post** fall arrest should also be considered for rooftop safety.

**Drainage** – Sika roofing preformed rigid rainwater outlets should be installed to ensure a fully compatible & weldable seal to the drainage outlet. Sika Limited can provide bespoke drainage calculations to determine the size and quantity of rainwater outlets required.

**Lightning Protection** – Lightning conductor tape should be attached to the Sika Roofing membrane using the appropriate **Sika Roofing Heat Weldable Lightning Conductor Clips**. These are to be fixed in accordance with relevant installation guidelines and fitted to the layout designed by the Lightning Conductor Specialist.

**Rooflights** – SikaRoof® Light SS are a comprehensive range of rooflights, which are standard or specifically designed, to meet the requirements of the project. The range encompasses continuous or singular rooflights with various glazing options.

A detailed SikaRoof® Light SS specification is available on request.

**Liquid Detailing System** – The **Sika Roofing Liquid Detailing** can be considered for very difficult detailing situations and where considered should be installed in strict accordance with the Sika Roofing Liquid Detailing Method Statement and all relevant Product Data Sheets.

Information regarding the products and materials used within the system can be supplied by Sika roofing Technical Services upon request.

## 1.13 GUARANTEE

### 1.13.1 GENERAL CONDITIONS

**General Disclaimer** - The details contained within this proposal are based on information available at the time of writing. Sika Limited cannot be held responsible for unknown site conditions or for the performance of materials within the system other than those manufactured, supplied and branded as Sika products.

**Copyright** - All Intellectual Property in drawings, designs, specifications, plans, software and any other documents or materials in any medium which have been created and/or developed by Sika Limited in relation to this project remain vested with Sika Limited.

□

**Specimen Guarantees:** Specimen guarantees including the terms and conditions of the proposed guarantee can be supplied on request by the Sika Roofing Technical Department

**Protection of the roof during construction** - To prevent damage to the Sika Roofing waterproofing system, ensure that finished areas of work are not used for the storage of materials, or as access routes for other trades. Should any such use be unavoidable, adequate and appropriate protection should be provided for the entire construction period.

**Inspection of Sika Roofing Waterproofing Systems** – Sika roofing waterproofing systems should be inspected bi-annually and as described in the latest version of BS 6229.

Sika Limited recommend that the roof is inspected for damage after adverse weather. It is also advisable to be inspected after work is carried out on the roof by other trades.

**Product Information** - The Safety Data Sheets (SDS) for Sika Roofing products are according to Regulation EC No 1907/2006 (REACH) and are available upon request. All materials should be treated strictly in accordance with Sika Limited's current technical & product information and all relevant health and safety guidelines

**Chemical Contamination/Spillages** - In the event of chemical contamination, the area should be well washed down with a domestic detergent solution and flushed with fresh water until all traces of the chemical have been removed from the waterproofing surface. Following this, contact the Sika Roofing Technical Services Department for further advice or action.



**Physical Damage** - Sika Roofing waterproofing systems are liable to physical damage if abused. This damage can often be permanently repaired by a Verified/Certified Contractor. An up-to-date list of such suitable contractors can be obtained from Sika Limited (please note we recommend that the original installing contractor should be used whenever possible to avoid split responsibility for workmanship).

**Under no circumstances should repairs be attempted using products not approved by Sika Limited.**

# SIKA ROOFING TECHNICAL SPECIFICATION



## MOCT Studio - London

PROJECT: 35 High Holborn  
PROJECT REF: 0517571-A  
DATE: 17 March 2025

**BUILDING TRUST**



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# 1 0517571 TERRACES TECHNICAL SPECIFICATION

## 1.1 DISCLAIMER

This specification is intended to provide information solely relating to proposal(s) for a new roof, or the refurbishment of an existing roof. The information has been compiled using due care, skill and diligence, however the following points should be noted;

- i. This document is provided freely and in good faith based on the information provided to Sika Ltd by the user at the time of writing. This specification is deemed to be valid for a period of **12 months** from the date of issue, after which all documents should be reviewed by Sika Ltd to ensure that the proposed solution remains fit for purpose. Sika Ltd accept no responsibility for user errors, inaccuracies or omissions of the information provided to Sika.
- ii. Any alteration or variance to the proposed design, products or systems listed in the specification must be agreed by Sika Ltd in writing before works begin.
- iii. It must be noted that our proposal(s) include measures to ensure that any standing water is minimised where possible. Due to working on an existing structure however, the possibility that any standing water may occur due to the lines and levels of the existing building still exists and Sika Ltd can accept no liability in this regard.
- iv. Sika Ltd offer no guarantee nor accept any liability for the condition or performance of either the new or existing structural deck, any retained or existing elements of the building, or the existing roofing system. For advice on the suitability of a structural deck further information should be sought from a suitably qualified person.
- v. It is the responsibility of the installing contractor, to review this specification and all relevant documentation relating to the project and undertake any additional site visits to familiarise themselves with specific on-site conditions or limitations that may have impact on the works.
- vi. Where the roof waterproofing works form part of a wider construction project, the Architect or design professional should be consulted to confirm the suitability of this specification when considered in the context of the whole construction project.

## 1.2 SYSTEM SCHEDULE

COMPONENT	PRODUCT
Substrate Primer	SikaRoof® Primer-610 Spray
Air & Vapour Control Layer	S-Vap 5000 E SA
Insulation Attachment	SikaRoof® Adhesive-200
Insulation	Sikatherm® PIR GT T
Waterproofing Attachment	SikaRoof® Adhesive-400 Spray
Waterproofing Membrane	Sikaplan® SGK-18
Protection Layer	S-Felt GK-400
Surface Finish	Timber Decking (by Others)

## 1.3 SPECIFICATION DETAILS

Specification Details: Terrace Areas	
Roof size (m2):	<b>250</b>
Roof height (m):	<b>12</b>
Degree of Roof Pitch (°):	<b>&lt;5</b>
Profile of Roof:	<b>Flat</b>
Hipped:	<b>No</b>
Longest Building Length (m):	<b>75</b>
Type of eaves:	<b>Kerb</b>
Building use:	<b>COMMERCIAL</b>
Humidity class:	<b>3</b>
U Value:	<b>0.18</b>
The criteria above must be checked by the Specifier. The Sika Roofing Technical Department should be notified of any discrepancy.	

## 1.4 WIND LOADING

## 1.4.1 WIND LOADING CALCULATION

Wind load calculations have been carried out in general accordance with BS EN 1991-1-4, UK National Annex Method, using the criteria stated within the Sika Limited project specification.

The following criteria must be checked by the Specifier. Sika Limited should be notified of any discrepancy.

Grid Reference/Postcode:	WC1V 6AE
Basic Wind Speed $V_b$ (m/s 10min):	21.6
Altitude Factor $C_{alt}$ :	1.024
Orography Factor $C_o$ :	1.000
Exposure Factor $C_e$ (sqrt):	1.404
Direction Factor $C_{dir}$ :	1.000
Peak velocity pressure $q_p$ (kPa):	0.438

External pressure coefficients ( $C_{pe}$ ), internal pressure coefficients ( $C_{pi}$ ) and partial safety factors ( $\gamma_q$ ) have been applied to the peak velocity pressure to calculate maximum loadings ( $W_{tot}$ ) for the applicable roof zones.

Central Zone:	<b>0.649</b> kN/m <sup>2</sup>
Perimeter Zone:	<b>1.300</b> kN/m <sup>2</sup>

Roof zone widths have been calculated in accordance with BS EN 1991-1-4 and the UK National Annex Method, using the criteria stated within the Sika Limited project specification.

Perimeter Zone:	Minimum width 2400mm
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**Note:** Any additional fastening requirements for the perimeter zone should be installed to the zone width stated above. This may result in additional fastening beyond this dimension.

## 1.5 THE CODE FOR CONSTRUCTION PRODUCT INFORMATION (CCPI)



The Code for Construction Product Information (CCPI) was created to promote an urgent and positive culture and behaviour change in the way the construction product manufacturing industry manages and provides information on their products. The CCPI was initiated by the Construction Product Association (CPA) as a direct response to Dame Judith Hackitt's review of Building Regulations and Fire Safety set up in the wake of the Grenfell Tower tragedy.

There are 11 Clauses within the CCPI assessment which cover a wide range of matters from responsibility for product information, to transparency of performance, proof of stated claims, general information and competency. The CCPI is built around five 'acid tests' - product information must be 'Clear, Accurate, Up-to-date, Accessible and Unambiguous'. The 11 clauses are also underpinned by a requirement to demonstrate the highest levels of integrity, ethics, leadership and culture around product information governance and competence.

The Code for Construction Product Information (CCPI) will help organisations drive higher standards in the presentation of construction product information, prioritising building safety.

Whether written in a specification, brochure, a presentation, on a website or social media, the CCPI will seek to provide assurance that users of product information have the necessary facts when making decisions about specifying or installing their verified products.

The CCPI will assure independent and robust verification, working to build more confidence with the public and external stakeholders and setting the market for UK construction products ahead of others.

## 1.6 EXISTING BUILD-UP & PREPARATION

**Existing Roof Build-up** - The existing roof build up is believed to be as shown below. However should this be found not to be the case, Sika Limited should be consulted as this is likely to effect the specification.



## Existing Build up Unknown

**Existing Roof Preparation** – Remove all finishes back to the existing structural deck and carefully check its condition. Only strip as much as can subsequently be made watertight in the same day. Repair or replace the structural deck as instructed by the Supervising Officer.

**Existing Services** - The client or client's representative should ensure that the necessary checks are carried out prior to commencement of any works, to ensure that there are no existing services, electrical cables, pipes etc, secured to, or installed directly beneath the existing structural deck. Should this be found to be the case, the Roofing Contractor and Sika Limited should be notified immediately as this may require an alteration to the proposed specification.

## 1.7 SUBSTRATE PREPARATION

**Primer** - Prime the substrate fully with SikaRoof® Spray Applied Primer 610 and allow to dry, prior to installing the specified self-adhesive air & vapour control layer.

SikaRoof® primer should be applied in accordance with Sika Limited installation instructions and is not suitable for use in temperatures below 5°C.

## 1.8 HUMIDITY CLASSIFICATION

**Humidity Classification** - In accordance with BS 5250:2021 Management of Moisture in Buildings - Code of Practice (Table 12), the specified roof system is based on **Humidity Class 3**.

Should a different humidity classification be required for this design, Sika Limited should be notified as this may result in a change to the specification of the AVCL, insulation or fastening requirements.

## 1.9 AIR & VAPOUR CONTROL LAYER

**S-Vap 5000E SA** - To form a high performance air & vapour control layer, install S-Vap 5000E SA foil faced, reinforced, self adhesive backed bituminous membrane in accordance with the Product Data Sheet.

The full area should be pressed into place immediately after adhering, using a water filled pressure roller or similar. All side laps (min 75mm) and end laps (min 75mm) should be fully supported and continuously sealed in accordance with the Product Data Sheet. To achieve tightly sealed joints the laps must be rolled down firmly with a pressure roller (silicone roller) or by applying pressure. The air & vapour control layer is to be sealed to the abutment at the perimeter of the roof and around all penetrations. The surface of the abutment should be smooth enough to allow an adequate airtight seal of the air & vapour control layer.

**S-Vap 5000E SA can be used as a temporary waterproofing layer for up to 4 weeks in accordance with the Product Data Sheet. When using as a temporary waterproofing layer for a prolonged period, prime the substrate using SikaRoof® Spray Applied Primer 610 or SikaRoof® Primer-600 UK.**

Minimum application temperatures quoted in the Product Data Sheets should always be adhered to. Temporary localised arrangements for heating the substrate and/or the surface of the membrane with the use of warm air equipment is acceptable to keep the application surface at a reasonable working temperature - provided always that the methodology and equipment used do not heat the surface or material excessively and importantly are acceptable to the client for use in the area. Careful consideration should be given to the use of any hot works and this should only be adopted where no other option exists with the work conducted in accordance with regulatory requirements and NFRC safe2torch-guidance.

## 1.10 INSULATION

Install Sikatherm® insulation in accordance with the Sika Limited project specification and Product Data Sheet to achieve the required U-value of **0.18Wm<sup>2</sup>K**.

**Tapered Sikatherm® PIR GT Insulation** - Install **1 in 60 tapered** Sikatherm® PIR GT CFC and HCFC free polyisocyanurate insulation providing zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP). The insulation is to be in accordance with BS EN 13165 and the SPRA Design Guide.

Sikatherm® insulation is to be maximum 1200mm x 1200mm and bonded to the air & vapour control layer using **Sika® C-250** spray applied adhesive (**use SikaRoof® Primer-600 UK when necessary, if in doubt an adhesion test should be carried out**). Ensure the substrate is dust free and has a non-friable surface. The wind uplift calculated for this roof with a **smooth** substrate requires the **Sika® C-250** to be applied in minimum **30mm** wide liquid beads in straight lines at **250mm** equal centres in the **central zone** and at **166mm** equal centres in the **perimeter zone**, all in accordance with the Sika Limited guidelines.

Alternatively use **SikaRoof® Adhesive 200** (**use SikaRoof® Primer-600 UK when necessary, if in doubt an adhesion test should be carried out**) and apply in minimum **10mm** wide liquid beads in straight lines at **250mm** equal centres in the **central zone** and at **166mm** equal centres in the **perimeter zone**, all in accordance with the Sika Limited guidelines.

**Please note that the application of SikaRoof® Adhesive 200 is limited to a maximum roof pitch of 10°**

Sika Limited accepts no responsibility for the use or consequences of failure of any insulation adhesive other than appropriate Sika products. All board joints to be lightly butt jointed and level. All board ends must be supported by the structural deck.

The minimum thickness and average U-value is to be determined by the Specifier.

Tapered insulation is designed to drain water from flat roof areas as efficiently as possible. It cannot, however, be guaranteed that drainage efficiency will be achieved, due to building and construction tolerances, and there may be some local standing water after rainfall. In such cases the waterproofing integrity remains unaffected and the guarantee remains valid.

When using Sarnacol 2170 or SikaRoof® Adhesive-400 Spray applied it is not a technical requirement to cover all Sikatherm® board joints with self-adhesive aluminium tape. However, please note that when using non-fleece backed membrane omitting the tape may increase the 'ghosting' of the insulation board joints through the membrane.

Where applicable the uniform thickness packer boards are to be to the same specification as the tapered top insulation boards.

**Note:** For the Sika Limited guarantee to include the insulation, the specified Sikatherm® boards must be installed.

**Bonding Multiple Layers of Insulation** - When installing multiple layers of bonded insulation use Sika® C-250 spray applied adhesive or SikaRoof® Adhesive 200 to the same application rate as required to bond the insulation to the air & vapour control layer. Due to the foaming rate of the adhesive and it being subject to atmospheric conditions, consideration should be given to the potential rising of the insulation boards. A water filled roller can be used to consolidate the bond.

Sarnacol 2142V adhesive can be used but should be applied to the whole bonding area. Due to the low rise foaming of Sarnacol 2142V this adhesive may not be suitable due to the tolerances in insulation boards and the subsequent risk of an insufficient bond being achieved.

**Note:** When using two or more Sikatherm® PIR GT insulation boards with a mineral glass facing it is necessary to use a greater combined thickness than the equivalent required for a given U-value with a single board.

**Loading** - The Specifier should seek assurances from the insulation board manufacturer regarding the suitability of the board for use in this heavily trafficked roof build up.

## 1.11 WATERPROOFING SYSTEM

### 1.11.1 WATERPROOFING PROPOSAL

Sikaplan® SGK is a multi-layer, synthetic roof waterproofing sheet based on premium-quality polyvinyl chloride (PVC) with inlay of glass non-woven and polyester fleece backing according to EN 13956, for use in exposed adhered roof waterproofing applications

Sikaplan® and its associated products are fully certified and accredited by the British Board of Agrément.

### 1.11.2 WATERPROOFING APPLICATION

### 1.11.2.1 ROOFING - SIKAPLAN® SGK

Adhere Sikaplan® SGK-18 Lead Grey roofing membrane to the insulation board using SikaRoof® Adhesive-400 Spray membrane adhesive in accordance with the Product Data Sheet.

**Note:** *SikaRoof® adhesives are not suitable for use in temperatures remaining below 5°C for prolonged periods.*

When using SikaRoof® 2142 V and/or SikaRoof® C-300 and/or SikaRoof® Adhesive 500, allow a short period of time before laying the waterproofing membrane into the adhesive to allow for the absorption of moisture and the adhesive to react. If this does not occur over-mist with water. SikaRoof® 2142 V and SikaRoof® C-300 membrane adhesives are not suitable on roof pitches >10° without additional restraints.

In the main area of the roof use a weighted roller (minimum 50kg) to ensure that the membrane achieves intimate contact with the insulation board. For sloping, vertical and detail work a lambswool roller should be used.

**Overlap subsequent sheets by the width of the selvedge and heat weld all side laps using a hand welding machine or automatic welding machine.** Prior to welding, it is essential to chamfer the leading edge of all transverse/cross joints.

Sikaplan® SGK roofing membrane is butt jointed at roll ends and weathered with **Sikaplan® G-15** or **Sikaplan® SG-15** coverstrip, hot air welded on either side.

Install Sika Limited **S-Peelstops**, or an alternative approved fixing method, to the perimeter of the roof, at all internal angles and around all roof penetrations in accordance with Sika Limited Technical details. S-Peelstops should be fastened into the structural deck where possible, fixed at **maximum 250mm centres** with Sika Limited SBT thermally broken tubes and BS-S stainless steel fasteners.

**Note:** *The fasteners stated above are based on the structural deck specified within the Sika Limited project specification. If fixing into alternative substrates please consult Sika Limited. When fixing into upstands, kerbs or other substrates, ensure these are suitably fixed to the structure.*

The fasteners must penetrate and project below a metal or timber deck by a minimum of 15mm (minimum 20mm if the metal deck has a stiffening rib) or have a minimum embedment of 25mm into a concrete deck.

Thermally broken fasteners must be installed with the appropriate tooling and the membrane must be pre-punched with the Sika Limited membrane punch tool.

**Detailing – Mechanically fasten Sikaplan® G-15** roofing membrane and/or adhere **Sikaplan® SG-15** detailing membrane in accordance with Sika Limited Technical details.

**Note:** *For mechanically fastened detail work, an alternative method of restraint may be required to upstands and perimeters. Consult Sika Limited.*

For specific detailing, **Sikaplan® D-18** can be installed. Refer to Sika Limited Technical details.

**Upstands** – Careful consideration should be given to the method of attachment of the insulation and waterproofing for upstands. Adhered upstands provide a very smooth and aesthetically pleasing finish, however where high upstands occur, adhering single ply can sag over time, leading to aesthetic issues.

For adhered upstands Sika Ltd recommend that they are limited to 400mm in height and If they exceed 400mm, then additional mechanical restraints will be required.

Any mechanically fastened upstands installed between 800-1100mm also need to be lap fixed to provide additional support.

When using Sikaplan G/SGK membranes >1.5mm thick, prior to welding, it is essential to chamfer the leading edge of all transverse/cross joints in accordance with the recommendations for Sarnafil systems.

**Inspection** - Immediately prior to covering the waterproofing, Sika Limited must be given reasonable opportunity (minimum. 5 days notice) to inspect the roof. This is a pre-requisite to the issue of the Sika Limited guarantee.

## 1.12 PROTECTION LAYER

Loose lay **Sikaplan® S-Felt GK-400** protection layer, with minimum 50mm side and end laps.

The protection sheet should be dressed up all upstands by a minimum of the full thickness of the ballast.

The protection sheet should not be exposed for extended periods of time.

## 1.13 SURFACE FINISH

**Timber Decking** - Install timber decking as specified by the Architect/Specifier with integral timber bearers. The design should be capable of withstanding the loads placed upon it. Strength graded timber is recommended for the structural components.

Only use timber that is naturally durable, pressure treated or modified to improve durability. If pressure treated, all site end grain cuts should be re-treated with a brush applied end grain wood preservative.

For more details refer to the Timber Decking and Cladding Association guidance - [www.tda.org.uk](http://www.tda.org.uk).

Non-timber composite bearers are not recommended to be mixed with timber decking. The size and spacing of the bearers should be specified to optimise the load spreading ability of the decking. It may be necessary to notch the underside of the bearers over Sika Limited S-Peelstops. The impact of this on

load bearing capability should be considered within the design.

A movement gap should be provided at all abutments between the edges of the decking and the waterproofing flashings. Protect the upstand flashings as required.

## 1.14 GENERAL DETAILING

Detail work generally is to be in accordance with the appropriate Sika Roofing standard details including published technical advice/recommendations and the Specifier's project drawings.

The following items should be considered;

**Health & Safety/Access** – Sika Roofing walkway tiles are recommended for known access routes across the roof and the **Sika Roofing Constant Force Post** fall arrest should also be considered for rooftop safety.

**Drainage** – Sika roofing preformed rigid rainwater outlets should be installed to ensure a fully compatible & weldable seal to the drainage outlet. Sika Limited can provide bespoke drainage calculations to determine the size and quantity of rainwater outlets required.

**Lightning Protection** – Lightning conductor tape should be attached to the Sika Roofing membrane using the appropriate **Sika Roofing Heat Weldable Lightning Conductor Clips**. These are to be fixed in accordance with relevant installation guidelines and fitted to the layout designed by the Lightning Conductor Specialist.

**Rooflights** – SikaRoof® Light SS are a comprehensive range of rooflights, which are standard or specifically designed, to meet the requirements of the project. The range encompasses continuous or singular rooflights with various glazing options.

A detailed SikaRoof® Light SS specification is available on request.

**Liquid Detailing System** – The **Sika Roofing Liquid Detailing** can be considered for very difficult detailing situations and where considered should be installed in strict accordance with the Sika Roofing Liquid Detailing Method Statement and all relevant Product Data Sheets.

Information regarding the products and materials used within the system can be supplied by Sika roofing Technical Services upon request.

## 1.15 GUARANTEE

## 1.15.1 GENERAL CONDITIONS

**General Disclaimer** - The details contained within this proposal are based on information available at the time of writing. Sika Limited cannot be held responsible for unknown site conditions or for the performance of materials within the system other than those manufactured, supplied and branded as Sika products.

**Copyright** - All Intellectual Property in drawings, designs, specifications, plans, software and any other documents or materials in any medium which have been created and/or developed by Sika Limited in relation to this project remain vested with Sika Limited.

□

**Specimen Guarantees:** Specimen guarantees including the terms and conditions of the proposed guarantee can be supplied on request by the Sika Roofing Technical Department

**Protection of the roof during construction** - To prevent damage to the Sika Roofing waterproofing system, ensure that finished areas of work are not used for the storage of materials, or as access routes for other trades. Should any such use be unavoidable, adequate and appropriate protection should be provided for the entire construction period.

**Inspection of Sika Roofing Waterproofing Systems** – Sika roofing waterproofing systems should be inspected bi-annually and as described in the latest version of BS 6229.

Sika Limited recommend that the roof is inspected for damage after adverse weather. It is also advisable to be inspected after work is carried out on the roof by other trades.

**Product Information** - The Safety Data Sheets (SDS) for Sika Roofing products are according to Regulation EC No 1907/2006 (REACH) and are available upon request. All materials should be treated strictly in accordance with Sika Limited's current technical & product information and all relevant health and safety guidelines

**Chemical Contamination/Spillages** - In the event of chemical contamination, the area should be well washed down with a domestic detergent solution and flushed with fresh water until all traces of the chemical have been removed from the waterproofing surface. Following this, contact the Sika Roofing Technical Services Department for further advice or action.

**Physical Damage** - Sika Roofing waterproofing systems are liable to physical damage if abused. This damage can often be permanently repaired by a Verified/Certified Contractor. An up-to-date list of such suitable contractors can be obtained from Sika Limited (please note we recommend that the original installing contractor should be used whenever possible to avoid split responsibility for workmanship).

**Under no circumstances should repairs be attempted using products not approved by Sika Limited.**



# SIKA ROOFING TECHNICAL SPECIFICATION



## MOCT Studio - London

PROJECT: 35 High Holborn  
PROJECT REF: 0517571-A  
DATE: 17 March 2025

**BUILDING TRUST**



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# 1 0517571 MW EXPOSED ROOF AREAS TECHNICAL SPECIFICATION

## 1.1 DISCLAIMER

This specification is intended to provide information solely relating to proposal(s) for a new roof, or the refurbishment of an existing roof. The information has been compiled using due care, skill and diligence, however the following points should be noted;

- i. This document is provided freely and in good faith based on the information provided to Sika Ltd by the user at the time of writing. This specification is deemed to be valid for a period of **12 months** from the date of issue, after which all documents should be reviewed by Sika Ltd to ensure that the proposed solution remains fit for purpose. Sika Ltd accept no responsibility for user errors, inaccuracies or omissions of the information provided to Sika.
- ii. Any alteration or variance to the proposed design, products or systems listed in the specification must be agreed by Sika Ltd in writing before works begin.
- iii. It must be noted that our proposal(s) include measures to ensure that any standing water is minimised where possible. Due to working on an existing structure however, the possibility that any standing water may occur due to the lines and levels of the existing building still exists and Sika Ltd can accept no liability in this regard.
- iv. Sika Ltd offer no guarantee nor accept any liability for the condition or performance of either the new or existing structural deck, any retained or existing elements of the building, or the existing roofing system. For advice on the suitability of a structural deck further information should be sought from a suitably qualified person.
- v. It is the responsibility of the installing contractor, to review this specification and all relevant documentation relating to the project and undertake any additional site visits to familiarise themselves with specific on-site conditions or limitations that may have impact on the works.
- vi. Where the roof waterproofing works form part of a wider construction project, the Architect or design professional should be consulted to confirm the suitability of this specification when considered in the context of the whole construction project.

## 1.2 SYSTEM SCHEDULE

COMPONENT	PRODUCT
Substrate Primer	SikaRoof® Primer-600 UK
Air & Vapour Control Layer	S-Vap 5000 E SA
Insulation Attachment	SikaRoof® Adhesive-200
Insulation	Sikatherm® MW DD T
Cover Board Attachment	SikaRoof® Adhesive-200
Cover Board	Sika® Rooftop Aquapanel
Waterproofing Attachment	SikaRoof® Adhesive C-300 UK
Waterproofing Membrane	Sikaplan® SGK-18
Accessories	Sikaplan® Walkway-20

## 1.3 SPECIFICATION DETAILS

Specification Details: MW Exposed Roof Areas	
Roof size (m2):	<b>500</b>
Roof height (m):	<b>18</b>
Degree of Roof Pitch (°):	<b>12</b>
Profile of Roof:	<b>Flat</b>
Hipped:	<b>No</b>
Longest Building Length (m):	<b>40</b>
Type of eaves:	<b>Kerb</b>
Building use:	<b>COMMERCIAL</b>
Humidity class:	<b>3</b>
U Value:	<b>0.18</b>
The criteria above must be checked by the Specifier. The Sika Roofing Technical Department should be notified of any discrepancy.	

## 1.4 WIND LOADING

## 1.4.1 WIND LOADING CALCULATION

Wind load calculations have been carried out in general accordance with BS EN 1991-1-4, UK National Annex Method, using the criteria stated within the Sika Limited project specification.

The following criteria must be checked by the Specifier. Sika Limited should be notified of any discrepancy.

Grid Reference/Postcode:	WC1V 6AE
Basic Wind Speed $V_b$ (m/s 10min):	21.6
Altitude Factor $C_{alt}$ :	1.023
Orography Factor $C_o$ :	1.000
Exposure Factor $C_e$ (sqrt):	1.556
Direction Factor $C_{dir}$ :	1.000
Peak velocity pressure $q_p$ (kPa):	0.594

External pressure coefficients ( $C_{pe}$ ), internal pressure coefficients ( $C_{pi}$ ) and partial safety factors ( $\gamma_q$ ) have been applied to the peak velocity pressure to calculate maximum loadings ( $W_{tot}$ ) for the applicable roof zones.

Central Zone:	<b>0.882</b> kN/m <sup>2</sup>
Perimeter Zone:	<b>1.763</b> kN/m <sup>2</sup>

Roof zone widths have been calculated in accordance with BS EN 1991-1-4 and the UK National Annex Method, using the criteria stated within the Sika Limited project specification.

Perimeter Zone:	Minimum width 3600mm
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**Note:** Any additional fastening requirements for the perimeter zone should be installed to the zone width stated above. This may result in additional fastening beyond this dimension.

## 1.5 THE CODE FOR CONSTRUCTION PRODUCT INFORMATION (CCPI)



The Code for Construction Product Information (CCPI) was created to promote an urgent and positive culture and behaviour change in the way the construction product manufacturing industry manages and provides information on their products. The CCPI was initiated by the Construction Product Association (CPA) as a direct response to Dame Judith Hackitt's review of Building Regulations and Fire Safety set up in the wake of the Grenfell Tower tragedy.

There are 11 Clauses within the CCPI assessment which cover a wide range of matters from responsibility for product information, to transparency of performance, proof of stated claims, general information and competency. The CCPI is built around five 'acid tests' - product information must be 'Clear, Accurate, Up-to-date, Accessible and Unambiguous'. The 11 clauses are also underpinned by a requirement to demonstrate the highest levels of integrity, ethics, leadership and culture around product information governance and competence.

The Code for Construction Product Information (CCPI) will help organisations drive higher standards in the presentation of construction product information, prioritising building safety.

Whether written in a specification, brochure, a presentation, on a website or social media, the CCPI will seek to provide assurance that users of product information have the necessary facts when making decisions about specifying or installing their verified products.

The CCPI will assure independent and robust verification, working to build more confidence with the public and external stakeholders and setting the market for UK construction products ahead of others.

## 1.6 EXISTING BUILD-UP & PREPARATION

**Existing Roof Build-up** - The existing roof build up is believed to be as shown below. However should this be found not to be the case, Sika Limited should be consulted as this is likely to effect the specification.



## Concrete deck

**Existing Roof Preparation** – Remove all finishes back to the existing structural deck and carefully check its condition. Only strip as much as can subsequently be made watertight in the same day. Repair or replace the structural deck as instructed by the Supervising Officer.

**Existing Services** - The client or client's representative should ensure that the necessary checks are carried out prior to commencement of any works, to ensure that there are no existing services, electrical cables, pipes etc, secured to, or installed directly beneath the existing structural deck. Should this be found to be the case, the Roofing Contractor and Sika Limited should be notified immediately as this may require an alteration to the proposed specification.

## 1.7 SUBSTRATE PREPARATION

**Primer** - Prime the substrate fully with SikaRoof® Primer-600 UK and allow to dry, prior to installing the specified self-adhesive air & vapour control layer.

SikaRoof® primer should be applied in accordance with Sika Limited installation instructions and is not suitable for use in temperatures below 5°C.

## 1.8 HUMIDITY CLASSIFICATION

**Humidity Classification** - In accordance with BS 5250:2021 Management of Moisture in Buildings - Code of Practice (Table 12), the specified roof system is based on **Humidity Class 3**.

Should a different humidity classification be required for this design, Sika Limited should be notified as this may result in a change to the specification of the AVCL, insulation or fastening requirements.

## 1.9 AIR & VAPOUR CONTROL LAYER

**S-Vap 5000E SA** - To form a high performance air & vapour control layer, install S-Vap 5000E SA foil faced, reinforced, self adhesive backed bituminous membrane in accordance with the Product Data Sheet.

The full area should be pressed into place immediately after adhering, using a water filled pressure roller or similar. All side laps (min 75mm) and end laps (min 75mm) should be fully supported and continuously sealed in accordance with the Product Data Sheet. To achieve tightly sealed joints the laps must be rolled down firmly with a pressure roller (silicone roller) or by applying pressure. The air & vapour control layer is to be sealed to the abutment at the perimeter of the roof and around all penetrations. The surface of the abutment should be smooth enough to allow an adequate airtight seal of the air & vapour control layer.



**S-Vap 5000E SA can be used as a temporary waterproofing layer for up to 4 weeks in accordance with the Product Data Sheet. When using as a temporary waterproofing layer for a prolonged period, prime the substrate using SikaRoof® Spray Applied Primer 610 or SikaRoof® Primer-600 UK.**

Minimum application temperatures quoted in the Product Data Sheets should always be adhered to. Temporary localised arrangements for heating the substrate and/or the surface of the membrane with the use of warm air equipment is acceptable to keep the application surface at a reasonable working temperature - provided always that the methodology and equipment used do not heat the surface or material excessively and importantly are acceptable to the client for use in the area. Careful consideration should be given to the use of any hot works and this should only be adopted where no other option exists with the work conducted in accordance with regulatory requirements and NFRC safe2torch-guidance.

## 1.10 INSULATION

**U-value** - Install Sikatherm® insulation in accordance with the Sika Limited project specification and Product Data Sheet to achieve the required U- value defined by the Specifier.

**U-value and condensation risk analysis calculations have not been completed by Sika Limited.**

**Sikatherm® MW Insulation** - Install non-combustible Sikatherm® CFC/HFC/HCFC free dual density stone wool insulation. The insulation is to be in accordance with BS EN 13162 and the SPRA Design Guide.

The Sikatherm® insulation is to be laid in a staggered bond pattern using 1000 x 1200mm\* boards and bonded to the air & vapour control layer using **SikaRoof® Adhesive C-300 UK** adhesive (**use Sarnafil Primer 600 when necessary, if in doubt an adhesion test should be carried out**) and ensure the substrate is dust free and has a non-friable surface. The wind uplift calculated for this roof with a smooth substrate requires the **Sika® C-300 UK** to be applied in minimum **20mm** wide liquid beads in straight lines at **250mm** equal centres in the **central zone** and at **166mm** equal centres in the **perimeter zone**, all in accordance with the Sika Limited guidelines.

Alternatively **SikaRoof® Adhesive C-300 UK** (**use Sarnafil Primer 600 when necessary, if in doubt an adhesion test should be carried out**) is to be applied in minimum **20mm** wide liquid beads in straight lines at **250mm** equal centres in the **central zone** and at **166mm** equal centres in the **perimeter zone**, all in accordance with the Sika Limited guidelines.

**Please note that the application of SikaRoof® Adhesive C-300 UK is limited to a maximum roof pitch of 10°**

Sika Limited accepts no responsibility for the use or consequences of failure of any insulation adhesive other than appropriate Sika products. All board joints to be lightly butt jointed and level. All board ends must be supported by the structural deck.

**\*The maximum board size recommended for adhesion is 1200x1200mm. Where larger boards are supplied, these will need to be cut down prior to application.**

**Note:** For the Sika Limited guarantee to include the insulation, the specified Sikatherm® boards must be installed.

**Bonding Multiple Layers of Insulation** - When installing multiple layers of bonded insulation use **SikaRoof® Adhesive C-300 UK** to the same application rate as required to bond the insulation to the air & vapour control layer. Due to the foaming rate of SikaRoof® Adhesive C-300 UK, and it being subject to atmospheric conditions, consideration should be given to the potential rising of the insulation boards. A water filled roller can be used to consolidate the bond.

**Note:** Sikatherm MW insulation is only suitable for light foot traffic. If heavier traffic is expected then the installation of a steel spreader would be required in order to protect the insulation from compression and/or further damage

**Steel Spreader Sheet** - Install a minimum 0.9mm thick galvanised steel spreader sheet over the insulation.

The galvanised steel sheet is to be mechanically fastened to the underlying structural decking, fastened 100mm in from corners and edges using suitable countersunk headed screws (or telescopic washers and screw fasteners if necessary). When adhering Sikaplan membrane over the spreader sheet the number of fasteners will be determined by the local wind uplift requirements – consult the Sika Roofing Technical Services Department. The steel sheets should have no sharp edges or burrs.

Overlay the spreader sheets with S-Felt T polyester cushion layer or when adhering use fleece-backed Sikaplan membrane.

## 1.11 WATERPROOFING SYSTEM

### 1.11.1 WATERPROOFING PROPOSAL

Sikaplan® SGK is a multi-layer, synthetic roof waterproofing sheet based on premium-quality polyvinyl chloride (PVC) with inlay of glass non-woven and polyester fleece backing according to EN 13956, for use in exposed adhered roof waterproofing applications

Sikaplan® and its associated products are fully certified and accredited by the British Board of Agrément.

### 1.11.2 WATERPROOFING APPLICATION

#### 1.11.2.1 ROOFING - SIKAPLAN® SGK

Adhere Sikaplan® SGK-18 Lead Grey roofing membrane to the insulation board using SikaRoof® C-300 membrane adhesive in accordance with the Product Data Sheet.

**Note:** *SikaRoof® adhesives are not suitable for use in temperatures remaining below 5°C for prolonged periods.*

When using SikaRoof® 2142 V and/or SikaRoof® C-300 and/or SikaRoof® Adhesive 500, allow a short period of time before laying the waterproofing membrane into the adhesive to allow for the absorption of moisture and the adhesive to react. If this does not occur over-mist with water. SikaRoof® 2142 V and SikaRoof® C-300 membrane adhesives are not suitable on roof pitches >10° without additional restraints.

In the main area of the roof use a weighted roller (minimum 50kg) to ensure that the membrane achieves intimate contact with the insulation board. For sloping, vertical and detail work a lambswool roller should be used.

**Overlap subsequent sheets by the width of the selvedge and heat weld all side laps using a hand welding machine or automatic welding machine.** Prior to welding, it is essential to chamfer the leading edge of all transverse/cross joints.

Sikaplan® SGK roofing membrane is butt jointed at roll ends and weathered with **Sikaplan® G-15** or **Sikaplan® SG-15** coverstrip, hot air welded on either side.

Install Sika Limited **S-Peelstops**, or an alternative approved fixing method, to the perimeter of the roof, at all internal angles and around all roof penetrations in accordance with Sika Limited Technical details. S-Peelstops should be fastened into the structural deck where possible, fixed at **maximum 250mm centres** with Sika Limited SBT thermally broken tubes and BS-S stainless steel fasteners.

**Note:** *The fasteners stated above are based on the structural deck specified within the Sika Limited project specification. If fixing into alternative substrates please consult Sika Limited. When fixing into upstands, kerbs or other substrates, ensure these are suitably fixed to the structure.*

The fasteners must penetrate and project below a metal or timber deck by a minimum of 15mm (minimum 20mm if the metal deck has a stiffening rib) or have a minimum embedment of 25mm into a concrete deck.

Thermally broken fasteners must be installed with the appropriate tooling and the membrane must be pre-punched with the Sika Limited membrane punch tool.

**Detailing – Mechanically fasten Sikaplan® G-15** roofing membrane and/or adhere **Sikaplan® SG-15** detailing membrane in accordance with Sika Limited Technical details.

**Note:** *For mechanically fastened detail work, an alternative method of restraint may be required to upstands and perimeters. Consult Sika Limited.*

For specific detailing, **Sikaplan® D-18** can be installed. Refer to Sika Limited Technical details.

**Upstands –** Careful consideration should be given to the method of attachment of the insulation and waterproofing for upstands. Adhered upstands provide a very smooth and aesthetically pleasing finish, however where high upstands occur, adhering single ply can sag over time, leading to aesthetic issues.

For adhered upstands Sika Ltd recommend that they are limited to 400mm in height and If they exceed 400mm, then additional mechanical restraints will be required.

Any mechanically fastened upstands installed between 800-1100mm also need to be lap fixed to provide additional support.

When using Sikaplan G/SGK membranes >1.5mm thick, prior to welding, it is essential to chamfer the leading edge of all transverse/cross joints in accordance with the recommendations for Sarnafil systems.

## 1.12 GENERAL DETAILING

Detail work generally is to be in accordance with the appropriate Sika Roofing standard details including published technical advice/recommendations and the Specifier's project drawings.

The following items should be considered;

**Health & Safety/Access** – Sika Roofing walkway tiles are recommended for known access routes across the roof and the **Sika Roofing Constant Force Post** fall arrest should also be considered for rooftop safety.

**Drainage** – Sika roofing preformed rigid rainwater outlets should be installed to ensure a fully compatible & weldable seal to the drainage outlet. Sika Limited can provide bespoke drainage calculations to determine the size and quantity of rainwater outlets required.

**Lightning Protection** – Lightning conductor tape should be attached to the Sika Roofing membrane using the appropriate **Sika Roofing Heat Weldable Lightning Conductor Clips**. These are to be fixed in accordance with relevant installation guidelines and fitted to the layout designed by the Lightning Conductor Specialist.

**Rooflights** – SikaRoof® Light SS are a comprehensive range of rooflights, which are standard or specifically designed, to meet the requirements of the project. The range encompasses continuous or singular rooflights with various glazing options.

A detailed SikaRoof® Light SS specification is available on request.

**Liquid Detailing System** – The **Sika Roofing Liquid Detailing** can be considered for very difficult detailing situations and where considered should be installed in strict accordance with the Sika Roofing Liquid Detailing Method Statement and all relevant Product Data Sheets.

Information regarding the products and materials used within the system can be supplied by Sika roofing Technical Services upon request.

## 1.13 GUARANTEE

### 1.13.1 GENERAL CONDITIONS

**General Disclaimer** - The details contained within this proposal are based on information available at the time of writing. Sika Limited cannot be held responsible for unknown site conditions or for the performance of materials within the system other than those manufactured, supplied and branded as Sika products.

**Copyright** - All Intellectual Property in drawings, designs, specifications, plans, software and any other documents or materials in any medium which have been created and/or developed by Sika Limited in relation to this project remain vested with Sika Limited.

□

**Specimen Guarantees:** Specimen guarantees including the terms and conditions of the proposed guarantee can be supplied on request by the Sika Roofing Technical Department

**Protection of the roof during construction** - To prevent damage to the Sika Roofing waterproofing system, ensure that finished areas of work are not used for the storage of materials, or as access routes for other trades. Should any such use be unavoidable, adequate and appropriate protection should be provided for the entire construction period.

**Inspection of Sika Roofing Waterproofing Systems** – Sika roofing waterproofing systems should be inspected bi-annually and as described in the latest version of BS 6229.

Sika Limited recommend that the roof is inspected for damage after adverse weather. It is also advisable to be inspected after work is carried out on the roof by other trades.

**Product Information** - The Safety Data Sheets (SDS) for Sika Roofing products are according to Regulation EC No 1907/2006 (REACH) and are available upon request. All materials should be treated strictly in accordance with Sika Limited's current technical & product information and all relevant health and safety guidelines

**Chemical Contamination/Spillages** - In the event of chemical contamination, the area should be well washed down with a domestic detergent solution and flushed with fresh water until all traces of the chemical have been removed from the waterproofing surface. Following this, contact the Sika Roofing Technical Services Department for further advice or action.

**Physical Damage** - Sika Roofing waterproofing systems are liable to physical damage if abused. This damage can often be permanently repaired by a Verified/Certified Contractor. An up-to-date list of such suitable contractors can be obtained from Sika Limited (please note we recommend that the original installing contractor should be used whenever possible to avoid split responsibility for workmanship).

**Under no circumstances should repairs be attempted using products not approved by Sika Limited.**



# SIKA ROOFING TECHNICAL SPECIFICATION



## MOCT Studio - London

PROJECT: 35 High Holborn  
PROJECT REF: 0517571-A  
DATE: 17 March 2025

**BUILDING TRUST**



# INTRODUCTION

Sika Limited · Watchmead · Welwyn Garden City · AL7 1BQ · United Kingdom

**BUILDING TRUST**



MOCT Studio  
Unit 42  
Regent Studios  
8 Andrews Road  
E8 4QN London

**CONTACT**  
Tony Conroy  
Area Technical Manager - Sika Limited  
+44 7834104697  
conroy.tony@uk.sika.com

17 March 2025  
Reference: 0517571-A

Dear Christopher Thorn

Please find enclosed the proposed specification for the roofing works at the above named project. Contained within the specification you will find comprehensive information regarding the proposed roof build up(s), detailing, general conditions, guarantees, workmanship and maintenance.

**This specification is valid for 12 months from the date shown above, after which all associated documents should be reviewed by Sika Limited to ensure that the proposed solution remains fit for purpose.**

Any variations to this specification must be confirmed by Sika Limited to ensure suitability of the proposed change. Sika Limited retain the right to alter our product specifications in line with our available product portfolio and in accordance with relevant national and international standards without notice.

**Design** - This specification includes project specific information including design information and is further supported by Sika Limited's professional indemnity insurance. Sika Limited endeavour to supply accurate and quality advice on every project.

**CDM Regulations** – Please note that Sika Limited does not fulfil the role of the Principal Designer and therefore preparation for the proposed specification and subsequent works should only commence when all parties involved with the design and execution of the works are satisfied the appropriate CDM regulations have been fulfilled

**Downloads** – For more information, please feel free to visit our website for the downloads of any related documentation such as;

[Standard Details](#) | [Product Datasheets](#) | [Safety Datasheets](#) | [BBA Certificates](#) | [Brochures](#) | [Case Studies](#)

**Fire Testing** - Our most common roof assemblies have been tested by UKAS accredited bodies to CEN/ TS 1187, achieving classification of Broof(T4) in accordance with EN 13501-5. Extended scope of application (ExAp) has also been independently determined using CEN/TS 16459 to cover a range of possible project-specific system permutations . Copies of individual system test certificates are available upon request.\*

\*relates to standard system constructions only – for clarity please contact Sika Roofing Technical Services.

**Sika Solutions** – Have you considered any other Sika products for this project? From the basement to the roof, Sika provides an entire range of solutions;

[Waterproofing](#) | [Flooring](#) | [Concrete](#) | [Concrete Repair](#) | [Coatings](#) | [Facades](#) | [Passive Fire Protection](#) | [Joint Sealing](#) | [Structural Strengthening](#)

I hope we have properly understood your requirements, however If we can be of further help on this, or any other project, please contact me directly.

Kind regards

Tony Conroy  
Area Technical Manager

Oliver Dye  
Technical Services Advisor



## CONTACT SHEET

**Prepared for:** MOCT Studio  
Unit 42  
Regent Studios  
8 Andrews Road  
London  
E8 4QN

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**Telephone:** 02072411697

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**For the attention of:** Christopher Thorn  
**Email:** ct@moctstudio.com

---

**Site:** 35 High Holborn  
35 High Holborn  
  
London  
WC1V 6AE

---

**Prepared by:** Tony Conroy - Area Technical Manager  
**Telephone:** +44 7834104697  
**Email:** conroy.tony@uk.sika.com



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**Technical Services Contact:** Oliver Dye - Technical Services Advisor  
**Telephone:** 08081410710  
**Email:** dye.oliver@uk.sika.com



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**Date:** 17 March 2025

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# 1 0517571 MW TERRACE AREAS TECHNICAL SPECIFICATION

## 1.1 DISCLAIMER

This specification is intended to provide information solely relating to proposal(s) for a new roof, or the refurbishment of an existing roof. The information has been compiled using due care, skill and diligence, however the following points should be noted;

- i. This document is provided freely and in good faith based on the information provided to Sika Ltd by the user at the time of writing. This specification is deemed to be valid for a period of **12 months** from the date of issue, after which all documents should be reviewed by Sika Ltd to ensure that the proposed solution remains fit for purpose. Sika Ltd accept no responsibility for user errors, inaccuracies or omissions of the information provided to Sika.
- ii. Any alteration or variance to the proposed design, products or systems listed in the specification must be agreed by Sika Ltd in writing before works begin.
- iii. It must be noted that our proposal(s) include measures to ensure that any standing water is minimised where possible. Due to working on an existing structure however, the possibility that any standing water may occur due to the lines and levels of the existing building still exists and Sika Ltd can accept no liability in this regard.
- iv. Sika Ltd offer no guarantee nor accept any liability for the condition or performance of either the new or existing structural deck, any retained or existing elements of the building, or the existing roofing system. For advice on the suitability of a structural deck further information should be sought from a suitably qualified person.
- v. It is the responsibility of the installing contractor, to review this specification and all relevant documentation relating to the project and undertake any additional site visits to familiarise themselves with specific on-site conditions or limitations that may have impact on the works.
- vi. Where the roof waterproofing works form part of a wider construction project, the Architect or design professional should be consulted to confirm the suitability of this specification when considered in the context of the whole construction project.

## 1.2 SYSTEM SCHEDULE

COMPONENT	PRODUCT
Substrate Primer	SikaRoof® Primer-600 UK
Air & Vapour Control Layer	S-Vap 5000 E SA
Insulation Attachment	SikaRoof® Adhesive-200
Insulation	Sikatherm® MW DD T
Cover Board Attachment	SikaRoof® Adhesive-200
Cover Board	Sika® Rooftop Aquapanel
Waterproofing Attachment	SikaRoof® Adhesive C-300 UK
Waterproofing Membrane	Sikaplan® SGK-18
Protection Layer	S-Felt GK-400
Surface Finish	Timber Decking (by Others)

## 1.3 SPECIFICATION DETAILS

Specification Details: MW Terrace Areas	
Roof size (m2):	<b>200</b>
Roof height (m):	<b>15</b>
Degree of Roof Pitch (°):	<b>12</b>
Profile of Roof:	<b>Flat</b>
Hipped:	<b>No</b>
Longest Building Length (m):	<b>40</b>
Type of eaves:	<b>Kerb</b>
Building use:	<b>COMMERCIAL</b>
Humidity class:	<b>3</b>
U Value:	<b>0.18</b>
The criteria above must be checked by the Specifier. The Sika Roofing Technical Department should be notified of any discrepancy.	

## 1.4 WIND LOADING

## 1.4.1 WIND LOADING CALCULATION

Wind load calculations have been carried out in general accordance with BS EN 1991-1-4, UK National Annex Method, using the criteria stated within the Sika Limited project specification.

The following criteria must be checked by the Specifier. Sika Limited should be notified of any discrepancy.

Grid Reference/Postcode:	WC1V 6AE
Basic Wind Speed $V_b$ (m/s 10min):	21.6
Altitude Factor $C_{alt}$ :	1.024
Orography Factor $C_o$ :	1.000
Exposure Factor $C_e$ (sqrt):	1.494
Direction Factor $C_{dir}$ :	1.000
Peak velocity pressure $q_p$ (kPa):	0.527

External pressure coefficients ( $C_{pe}$ ), internal pressure coefficients ( $C_{pi}$ ) and partial safety factors ( $\gamma_q$ ) have been applied to the peak velocity pressure to calculate maximum loadings ( $W_{tot}$ ) for the applicable roof zones.

Central Zone:	<b>0.783</b> kN/m <sup>2</sup>
Perimeter Zone:	<b>1.565</b> kN/m <sup>2</sup>

Roof zone widths have been calculated in accordance with BS EN 1991-1-4 and the UK National Annex Method, using the criteria stated within the Sika Limited project specification.

Perimeter Zone:	Minimum width 3000mm
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**Note:** Any additional fastening requirements for the perimeter zone should be installed to the zone width stated above. This may result in additional fastening beyond this dimension.

## 1.5 THE CODE FOR CONSTRUCTION PRODUCT INFORMATION (CCPI)



The Code for Construction Product Information (CCPI) was created to promote an urgent and positive culture and behaviour change in the way the construction product manufacturing industry manages and provides information on their products. The CCPI was initiated by the Construction Product Association (CPA) as a direct response to Dame Judith Hackitt's review of Building Regulations and Fire Safety set up in the wake of the Grenfell Tower tragedy.

There are 11 Clauses within the CCPI assessment which cover a wide range of matters from responsibility for product information, to transparency of performance, proof of stated claims, general information and competency. The CCPI is built around five 'acid tests' - product information must be 'Clear, Accurate, Up-to-date, Accessible and Unambiguous'. The 11 clauses are also underpinned by a requirement to demonstrate the highest levels of integrity, ethics, leadership and culture around product information governance and competence.

The Code for Construction Product Information (CCPI) will help organisations drive higher standards in the presentation of construction product information, prioritising building safety.

Whether written in a specification, brochure, a presentation, on a website or social media, the CCPI will seek to provide assurance that users of product information have the necessary facts when making decisions about specifying or installing their verified products.

The CCPI will assure independent and robust verification, working to build more confidence with the public and external stakeholders and setting the market for UK construction products ahead of others.

## 1.6 EXISTING BUILD-UP & PREPARATION

**Existing Roof Build-up** - The existing roof build up is believed to be as shown below. However should this be found not to be the case, Sika Limited should be consulted as this is likely to effect the specification.

## Concrete deck

**Existing Roof Preparation** – Remove all finishes back to the existing structural deck and carefully check its condition. Only strip as much as can subsequently be made watertight in the same day. Repair or replace the structural deck as instructed by the Supervising Officer.

**Existing Services** - The client or client's representative should ensure that the necessary checks are carried out prior to commencement of any works, to ensure that there are no existing services, electrical cables, pipes etc, secured to, or installed directly beneath the existing structural deck. Should this be found to be the case, the Roofing Contractor and Sika Limited should be notified immediately as this may require an alteration to the proposed specification.

## 1.7 SUBSTRATE PREPARATION

**Primer** - Prime the substrate fully with SikaRoof® Primer-600 UK and allow to dry, prior to installing the specified self-adhesive air & vapour control layer.

SikaRoof® primer should be applied in accordance with Sika Limited installation instructions and is not suitable for use in temperatures below 5°C.

## 1.8 HUMIDITY CLASSIFICATION

**Humidity Classification** - In accordance with BS 5250:2021 Management of Moisture in Buildings - Code of Practice (Table 12), the specified roof system is based on **Humidity Class 3**.

Should a different humidity classification be required for this design, Sika Limited should be notified as this may result in a change to the specification of the AVCL, insulation or fastening requirements.

## 1.9 AIR & VAPOUR CONTROL LAYER

**S-Vap 5000E SA** - To form a high performance air & vapour control layer, install S-Vap 5000E SA foil faced, reinforced, self adhesive backed bituminous membrane in accordance with the Product Data Sheet.

The full area should be pressed into place immediately after adhering, using a water filled pressure roller or similar. All side laps (min 75mm) and end laps (min 75mm) should be fully supported and continuously sealed in accordance with the Product Data Sheet. To achieve tightly sealed joints the laps must be rolled down firmly with a pressure roller (silicone roller) or by applying pressure. The air & vapour control layer is to be sealed to the abutment at the perimeter of the roof and around all penetrations. The surface of the abutment should be smooth enough to allow an adequate airtight seal of the air & vapour control layer.

**S-Vap 5000E SA can be used as a temporary waterproofing layer for up to 4 weeks in accordance with the Product Data Sheet. When using as a temporary waterproofing layer for a prolonged period, prime the substrate using SikaRoof® Spray Applied Primer 610 or SikaRoof® Primer-600 UK.**

Minimum application temperatures quoted in the Product Data Sheets should always be adhered to. Temporary localised arrangements for heating the substrate and/or the surface of the membrane with the use of warm air equipment is acceptable to keep the application surface at a reasonable working temperature - provided always that the methodology and equipment used do not heat the surface or material excessively and importantly are acceptable to the client for use in the area. Careful consideration should be given to the use of any hot works and this should only be adopted where no other option exists with the work conducted in accordance with regulatory requirements and NFRC safe2torch-guidance.

## 1.10 INSULATION

Install Sikatherm® insulation in accordance with the Sika Limited project specification and Product Data Sheet to achieve the required U-value of **0.18Wm<sup>2</sup>K**.

**Tapered Sikatherm® MW Insulation** - Install non-combustible **1 in 60 tapered** Sikatherm® MW CFC/ HFC/HCFC free dual density stone wool insulation. The insulation is to be in accordance with BS EN 13162 and the SPRA Design Guide.

The Sikatherm® insulation is to be laid in a staggered bond pattern using 1000 x 1200mm\* boards and bonded to the air & vapour control layer using **SikaRoof® Adhesive C-300 UK** adhesive (**use Sarnafil Primer 600 when necessary, if in doubt an adhesion test should be carried out**) and ensure the substrate is dust free and has a non-friable surface. The wind uplift calculated for this roof with a smooth substrate requires the **Sika® C-300 UK** to be applied in minimum **20mm** wide liquid beads in straight lines at **250mm** equal centres in the **central zone** and at **166mm** equal centres in the **perimeter zone**, all in accordance with the Sika Limited guidelines.

Alternatively **SikaRoof® Adhesive C-300 UK** (**use Sarnafil Primer 600 when necessary, if in doubt an adhesion test should be carried out**) is to be applied in minimum **20mm** wide liquid beads in straight lines at **250mm** equal centres in the **central zone** and at **166mm** equal centres in the **perimeter zone**, all in accordance with the Sika Limited guidelines.

**Please note that the application of SikaRoof® Adhesive C-300 UK is limited to a maximum roof pitch of 10°**

Sika Limited accepts no responsibility for the use or consequences of failure of any insulation adhesive other than appropriate Sika products. All board joints to be lightly butt jointed and level. All board ends must be supported by the structural deck.

**\*The maximum board size recommended for adhesion is 1200x1200mm. Where larger boards are supplied, these will need to be cut down prior to application.**

**Note:** For the Sika Limited guarantee to include the insulation, the specified Sikatherm® boards must be installed.



**Bonding Multiple Layers of Insulation** - When installing multiple layers of bonded insulation use **SikaRoof® Adhesive C-300 UK** to the same application rate as required to bond the insulation to the air & vapour control layer. Due to the foaming rate of SikaRoof® Adhesive C-300 UK, and it being subject to atmospheric conditions, consideration should be given to the potential rising of the insulation boards. A water filled roller can be used to consolidate the bond.

**Note:** Sikatherm MW insulation is only suitable for light foot traffic. If heavier traffic is expected then the installation of a steel spreader would be required in order to protect the insulation from compression and/or further damage

**Steel Spreader Sheet** - Install a minimum 0.9mm thick galvanised steel spreader sheet over the insulation.

The galvanised steel sheet is to be mechanically fastened to the underlying structural decking, fastened 100mm in from corners and edges using suitable countersunk headed screws (or telescopic washers and screw fasteners if necessary). When adhering Sikaplan membrane over the spreader sheet the number of fasteners will be determined by the local wind uplift requirements – consult the Sika Roofing Technical Services Department. The steel sheets should have no sharp edges or burrs.

Overlay the spreader sheets with S-Felt T polyester cushion layer or when adhering use fleece-backed Sikaplan membrane.

**Loading** - The Specifier should seek assurances from the insulation board manufacturer regarding the suitability of the board for use in this heavily trafficked roof build up.

## 1.11 WATERPROOFING SYSTEM

### 1.11.1 WATERPROOFING PROPOSAL

Sikaplan® SGK is a multi-layer, synthetic roof waterproofing sheet based on premium-quality polyvinyl chloride (PVC) with inlay of glass non-woven and polyester fleece backing according to EN 13956, for use in exposed adhered roof waterproofing applications

Sikaplan® and its associated products are fully certified and accredited by the British Board of Agrément.

### 1.11.2 WATERPROOFING APPLICATION

### 1.11.2.1 ROOFING - SIKAPLAN® SGK

Adhere Sikaplan® SGK-18 Lead Grey roofing membrane to the insulation board using SikaRoof® C-300 membrane adhesive in accordance with the Product Data Sheet.

**Note:** *SikaRoof® adhesives are not suitable for use in temperatures remaining below 5°C for prolonged periods.*

When using SikaRoof® 2142 V and/or SikaRoof® C-300 and/or SikaRoof® Adhesive 500, allow a short period of time before laying the waterproofing membrane into the adhesive to allow for the absorption of moisture and the adhesive to react. If this does not occur over-mist with water. SikaRoof® 2142 V and SikaRoof® C-300 membrane adhesives are not suitable on roof pitches >10° without additional restraints.

In the main area of the roof use a weighted roller (minimum 50kg) to ensure that the membrane achieves intimate contact with the insulation board. For sloping, vertical and detail work a lambswool roller should be used.

**Overlap subsequent sheets by the width of the selvedge and heat weld all side laps using a hand welding machine or automatic welding machine.** Prior to welding, it is essential to chamfer the leading edge of all transverse/cross joints.

Sikaplan® SGK roofing membrane is butt jointed at roll ends and weathered with **Sikaplan® G-15** or **Sikaplan® SG-15** coverstrip, hot air welded on either side.

Install Sika Limited **S-Peelstops**, or an alternative approved fixing method, to the perimeter of the roof, at all internal angles and around all roof penetrations in accordance with Sika Limited Technical details. S-Peelstops should be fastened into the structural deck where possible, fixed at **maximum 250mm centres** with Sika Limited SBT thermally broken tubes and BS-S stainless steel fasteners.

**Note:** *The fasteners stated above are based on the structural deck specified within the Sika Limited project specification. If fixing into alternative substrates please consult Sika Limited. When fixing into upstands, kerbs or other substrates, ensure these are suitably fixed to the structure.*

The fasteners must penetrate and project below a metal or timber deck by a minimum of 15mm (minimum 20mm if the metal deck has a stiffening rib) or have a minimum embedment of 25mm into a concrete deck.

Thermally broken fasteners must be installed with the appropriate tooling and the membrane must be pre-punched with the Sika Limited membrane punch tool.

**Detailing – Mechanically fasten Sikaplan® G-15** roofing membrane and/or adhere **Sikaplan® SG-15** detailing membrane in accordance with Sika Limited Technical details.

**Note:** *For mechanically fastened detail work, an alternative method of restraint may be required to upstands and perimeters. Consult Sika Limited.*

For specific detailing, **Sikaplan® D-18** can be installed. Refer to Sika Limited Technical details.

**Upstands** – Careful consideration should be given to the method of attachment of the insulation and waterproofing for upstands. Adhered upstands provide a very smooth and aesthetically pleasing finish, however where high upstands occur, adhering single ply can sag over time, leading to aesthetic issues.

For adhered upstands Sika Ltd recommend that they are limited to 400mm in height and If they exceed 400mm, then additional mechanical restraints will be required.

Any mechanically fastened upstands installed between 800-1100mm also need to be lap fixed to provide additional support.

When using Sikaplan G/SGK membranes >1.5mm thick, prior to welding, it is essential to chamfer the leading edge of all transverse/cross joints in accordance with the recommendations for Sarnafil systems.

**Inspection** - Immediately prior to covering the waterproofing, Sika Limited must be given reasonable opportunity (minimum. 5 days notice) to inspect the roof. This is a pre-requisite to the issue of the Sika Limited guarantee.

## 1.12 PROTECTION LAYER

Loose lay **Sikaplan® S-Felt GK-400** protection layer, with minimum 50mm side and end laps.

The protection sheet should be dressed up all upstands by a minimum of the full thickness of the ballast.

The protection sheet should not be exposed for extended periods of time.

## 1.13 SURFACE FINISH

**Timber Decking** - Install timber decking as specified by the Architect/Specifier with integral timber bearers. The design should be capable of withstanding the loads placed upon it. Strength graded timber is recommended for the structural components.

Only use timber that is naturally durable, pressure treated or modified to improve durability. If pressure treated, all site end grain cuts should be re-treated with a brush applied end grain wood preservative.

For more details refer to the Timber Decking and Cladding Association guidance - [www.tda.org.uk](http://www.tda.org.uk).

Non-timber composite bearers are not recommended to be mixed with timber decking. The size and spacing of the bearers should be specified to optimise the load spreading ability of the decking. It may be necessary to notch the underside of the bearers over Sika Limited S-Peelstops. The impact of this on

load bearing capability should be considered within the design.

A movement gap should be provided at all abutments between the edges of the decking and the waterproofing flashings. Protect the upstand flashings as required.

## 1.14 GENERAL DETAILING

Detail work generally is to be in accordance with the appropriate Sika Roofing standard details including published technical advice/recommendations and the Specifier's project drawings.

The following items should be considered;

**Health & Safety/Access** – Sika Roofing walkway tiles are recommended for known access routes across the roof and the **Sika Roofing Constant Force Post** fall arrest should also be considered for rooftop safety.

**Drainage** – Sika roofing preformed rigid rainwater outlets should be installed to ensure a fully compatible & weldable seal to the drainage outlet. Sika Limited can provide bespoke drainage calculations to determine the size and quantity of rainwater outlets required.

**Lightning Protection** – Lightning conductor tape should be attached to the Sika Roofing membrane using the appropriate **Sika Roofing Heat Weldable Lightning Conductor Clips**. These are to be fixed in accordance with relevant installation guidelines and fitted to the layout designed by the Lightning Conductor Specialist.

**Rooflights** – SikaRoof® Light SS are a comprehensive range of rooflights, which are standard or specifically designed, to meet the requirements of the project. The range encompasses continuous or singular rooflights with various glazing options.

A detailed SikaRoof® Light SS specification is available on request.

**Liquid Detailing System** – The **Sika Roofing Liquid Detailing** can be considered for very difficult detailing situations and where considered should be installed in strict accordance with the Sika Roofing Liquid Detailing Method Statement and all relevant Product Data Sheets.

Information regarding the products and materials used within the system can be supplied by Sika roofing Technical Services upon request.

## 1.15 GUARANTEE

## 1.15.1 PROPOSED GUARANTEE

### Summary of 25-Year Sika Roofing Performance Plus Guarantee

A partnership guarantee between Sika Limited and the Certified Contractor.

Sika Limited guarantee to the Owner that if, during the **25 Year** Guarantee Period, the Materials are shown to not be in compliance with their requirements as set out in the relevant Product Data Sheets, we shall subject to the terms and conditions (specimen Guarantees available on request), at our option (a) repair or replace the Materials; or (b) pay the reasonable cost of repair or replacement of the non-compliant Materials, including in either case any damage to the exterior fabric of the roof directly caused by the Materials.

Should the defect be due to a workmanship issue, the Certified Contractor agrees to return the roof to its watertight state.

In the event that a defect in the installation of the Materials emerges within the Guarantee Period that is due to a failure by the Contractor to exercise reasonable skill and care, Sika Limited shall, where the Contractor has become “Insolvent” (as defined in Part 2 to the Appendix to this Performance Plus Guarantee) since the installation, subject to the terms and conditions, at our option: (a) repair or replace the affected Materials; or (b) pay the reasonable cost of repair or replacement of the affected Materials, including in either case any damage to the exterior fabric of the roof directly caused by the Materials.

#### What does it cover?

- All Sika Limited materials and branded products where applicable, invoiced by Sika Limited.
- Compatibility of Sika Limited products specified and supplied.
- Maximum aggregate liability £500,000 (see Guarantee terms & conditions for details).
- Workmanship cover (see Guarantee terms & conditions for details).
- Direct consequential loss for a successful claim, subject to the limiting value (see Guarantee terms & conditions for details).
- Guarantee supported by Public & Product Liability Insurance for the duration of the guarantee.
- Any written design and specification or written advice supplied by Sika Limited (supported by PI Insurance).
- Where specified, details waterproofed using the Liquid Detailing System (Single Ply Membranes and Reinforced Bituminous Membranes) for up to 10 years.
- For this guarantee the Sika Limited liability for the period from year 20 to the end of the guarantee is amortised over 30 years e.g. a successful claim in year 21 would be paid by Sika Limited at 10/30th of the claim, year 22 paid at 9/30th etc, subject in any event to the other terms of the guarantee including without limitation any other limits on liability.

#### Workmanship

For this guarantee to be issued, the system must be installed by suitably trained and experienced labour holding valid Fitter ID cards for the Materials specified. The workmanship is covered solely by the installing contractor for the term of the guarantee. Insurance backed options are available through FCA (Financial Conduct Authority) approved insurers, to cover contractor insolvency. Costs will vary, based on a percentage of the contract value and the Guarantee term.

#### Guarantee Requirements

**Project Ref:** 0517571-A    **Client:** MOCT Studio

**Project:** 35 High Holborn

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- Materials have been installed in accordance with the Sika Limited specification and site specific wind uplift calculation (refer to the Specification for detailed requirements including waterproofing type & thickness, fastener type, protection layers etc).
- All Sika Limited products supplied must have been paid for in full.
- Sika Limited roofing systems may only be installed by Certified Contractors, authorised and trained by Sika Limited. The Performance Guarantee is supported by workmanship assurances provided by the Certified Contractor for the period of the Guarantee and whilst the contractor is trading.
- The project must have been passed for guarantee by the Sika's Technical Site Support Department (the number of site visits is dictated by the size and complexity of the project and the experience of the installers).
- For ballasted/green roof projects an inspection must be requested and then carried out by the Sika's Technical Site Support Department prior to the covering of the waterproofing.
- Roof inspections are to be carried out by Sika's Technical Site Support Department every 5 years and any remedial works found necessary or desirable by Sika Limited would need to be properly carried out by the Certified Contractor. Power and safe access are to be provided by the Client.
- Refer to specimen Guarantee for full terms & conditions (available on request).

## 1.15.2 GENERAL CONDITIONS

**General Disclaimer** - The details contained within this proposal are based on information available at the time of writing. Sika Limited cannot be held responsible for unknown site conditions or for the performance of materials within the system other than those manufactured, supplied and branded as Sika products.

**Copyright** - All Intellectual Property in drawings, designs, specifications, plans, software and any other documents or materials in any medium which have been created and/or developed by Sika Limited in relation to this project remain vested with Sika Limited.

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**Specimen Guarantees:** Specimen guarantees including the terms and conditions of the proposed guarantee can be supplied on request by the Sika Roofing Technical Department

**Protection of the roof during construction** - To prevent damage to the Sika Roofing waterproofing system, ensure that finished areas of work are not used for the storage of materials, or as access routes for other trades. Should any such use be unavoidable, adequate and appropriate protection should be provided for the entire construction period.

**Inspection of Sika Roofing Waterproofing Systems** – Sika roofing waterproofing systems should be inspected bi-annually and as described in the latest version of BS 6229.

Sika Limited recommend that the roof is inspected for damage after adverse weather. It is also advisable to be inspected after work is carried out on the roof by other trades.

**Product Information** - The Safety Data Sheets (SDS) for Sika Roofing products are according to Regulation EC No 1907/2006 (REACH) and are available upon request. All materials should be treated strictly in accordance with Sika Limited's current technical & product information and all relevant health and safety guidelines

**Chemical Contamination/Spillages** - In the event of chemical contamination, the area should be well washed down with a domestic detergent solution and flushed with fresh water until all traces of the chemical have been removed from the waterproofing surface. Following this, contact the Sika Roofing Technical Services Department for further advice or action.

**Physical Damage** - Sika Roofing waterproofing systems are liable to physical damage if abused. This damage can often be permanently repaired by a Verified/Certified Contractor. An up-to-date list of such suitable contractors can be obtained from Sika Limited (please note we recommend that the original installing contractor should be used whenever possible to avoid split responsibility for workmanship).

**Under no circumstances should repairs be attempted using products not approved by Sika Limited.**