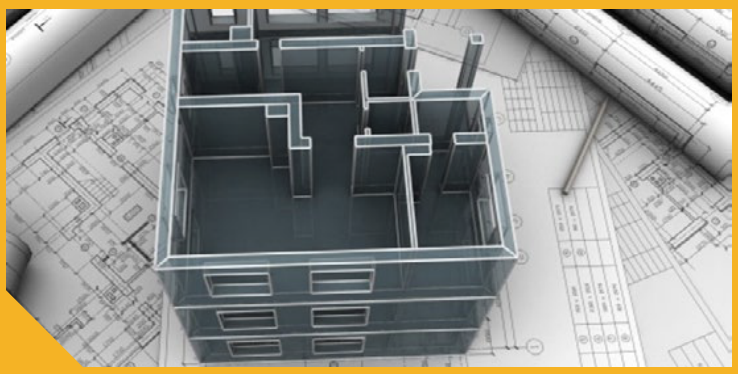
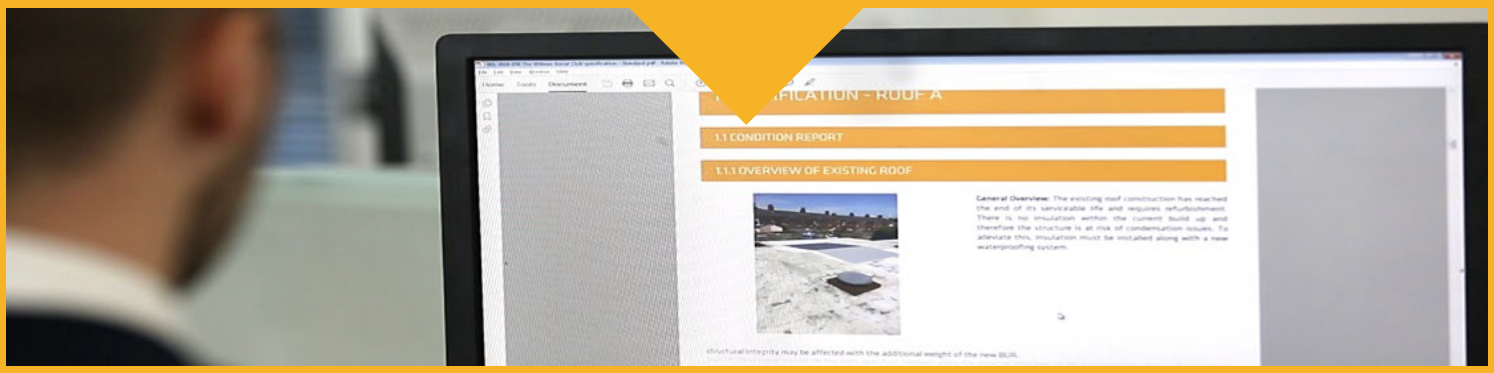
SIKA ROOFING TECHNICAL SPECIFICATION



WE ANSWER



O'Connor Roofing Services Ltd - Hartlepool

PROJECT: Cleveland Health Centre
PROJECT REF: DH-0279571
DATE: 4 August 2021

BUILDING TRUST

CONTENTS

1 TECHNICAL SPECIFICATION CLEVELAND HEALTH CENTRE - FLAT ROOFS

1.1 SYSTEM SCHEDULE

AREA	MATERIAL
Primer	Adhesion Test Confirmation Required
Waterproofing Membrane Base Coat	Sikalastic®-625 N
Reinforcement	Sika® Reemat Premium
Waterproofing Top Coat	Sikalastic®-625 N

1.2 SPECIFCATION DETAILS

Specification Details: Flat Roofs	
Roof size (m2):	2300
Roof height (m):	10
Degree of Roof Pitch (°):	>5
Profile of Roof:	Flat
Hipped:	no
Longest Building Length (m):	
Type of eaves:	Kerb
Building use:	HEALTH
Humidity class:	3
U Value:	
The criteria above must be checked by the Specifier. The Sika Roofing Technical Department should be notified of any discrepancy.	

1.3 ADHESION TESTING

Single Ply Priming Requirements:

In-house adhesion and compatibility tests are required to be carried out by Sika Liquid Plastics onto the existing single ply membrane in order to determine any priming requirements and the suitability of the proposed system.

Sikalastic Metal Primer, Sika PVC Primer, and a direct application of the top coat of the proposed system are all to be tested, and the specification is to be updated once a result is determined.

At this time, the priming requirements of the existing single ply membrane have not been determined, therefore no primers can be specified until adhesion tests have been completed.

Until these tests are complete, this specification is subject to change. We do not advise that this specification is tendered until the results of these tests are confirmed.

The existing Singles Ply Membrane is reported to be a Sarnafil PVC Membrane. This will need to be confirmed by providing photographic evidence and written confirmation of type.

1.4 PREPARATION

Structural Integrity: The existing structure is to be checked by a suitably qualified agent. Structural requirements are beyond the scope of this specification.

Single Ply Membrane: Inspect the existing single ply membrane, ensure it is correctly laid and securely fixed in accordance with the manufacturer's instructions. Repair any defects using compatible materials prior to treatment.

For coating overlay applications, all single ply membranes are subject to adhesion tests by Sika Limited.

Surface Lying Debris: Prior to the initial power washing of the roof, all surface lying debris should be removed by conventional methods.

Note: Outlet leaf grates and/or protection should be fitted, in all cases, to ensure that no debris enters the drainage system.

Initial Power Wash: All surfaces are to receive an initial power wash in order to reveal a clean surface suitable for inspection and repair, where necessary. 1500-2000 psi is recommended for preparation. There is no specific maximum as this may vary according to the equipment used and the surfaces being cleaned. At no time should the pressure jet be so high as to cause damage to the substrate being cleaned. Adjust the pressure to clean away contamination and friable material from the surface.

Note: Exercise suitable precautions when using high pressure equipment, check for any roof leaks, and verify that the drainage provides for an adequate flow.

Brickwork: Inspect associated . If any spalling, flaking, or other damage is encountered then it is to be repaired using compatible materials to match surroundings, or it should be replaced as necessary.

Mortar Joints: Inspect the mortar joints, all hollow or defective areas are to be made good using compatible materials to match surrounding.

Cracks/Gaps: Cracks, gaps, holes, etc. are to be raked out, suitably prepared, cleaned, and made good using compatible materials prior to further treatment.

Previous Repairs: Inspect any previous repair materials, patches, etc. If any are loose or suspected to be loose then they must be removed. Bituminous materials must always be removed.

Exposed Metal Surfaces: Exposed metal surfaces to be included in the coating schedule are to be wire brushed or mechanically abraded to remove rust/scale or oxidation. Return to a clean, bright metal wherever possible.

Note: Use equipment with deference to safety and, where necessary, check suitability with the equipment provider.

Note: Under typical conditions the free movement of air across the substrate will result in a rapid dispersion of vapours. Therefore, in order to avoid any odours entering buildings within the surrounding area, windows must be closed and air-conditioning systems redirected or switched off. The odour will contain solvents, but at a level much lower than household gloss paint, and therefore poses little risk to both those applying our system and those in the vicinity. For further information, please see our Decothane Health & Safety User Guide which can be found in the appendices of this specification.

1.5 PRE-TREATMENTS

Suspected, Known, or Stubborn Growths – All Surfaces/Waterproof Membranes, Felt, Asphalt, Single Ply Membranes, Concrete, Blockwork, Masonry, etc: Visible growths or vegetation should first be removed. Treat remaining adhered growths (and/or where active spores are suspected) by liberally applying a water/domestic bleach solution (maximum dilution 7:1). Allow to act in accordance with the manufacturer's instructions before removing the affected material using the appropriate tools. Repeat the procedure if necessary. Thoroughly rinse off and allow the surfaces to dry before continuing with the application.

Note: Exercise care and wear necessary protective equipment when handling bleach, as directed by the provider.

Metallic Surfaces: Once metal surfaces have been cleared of all rust, degrease said metal surfaces using a proprietary solvent-based degreasant. Work well onto the surfaces and allow to react before thoroughly rinsing with fresh water. Allow surfaces to dry before continuing.

Note: Apply in accordance with the manufacturer's instructions and exercise any precautions issued by the manufactur

1.6 HUMIDITY CLASSIFICATION

Humidity Classification - In accordance with BS 5250 Code of Practice for control of condensation in buildings (Table D7) the suitability of the roof build up specified within this specification is based on the Humidity Class 3.

Should the specifier require a different Humidity Class to be used for this design, then Sika Limited should be notified as this will probably require a change to the specification.

No AVCL: There is no AVCL in the existing build-up which may cause a condensation risk. This specification and guarantee covers the waterproofing system only.

1.7 AIR & VAPOUR CONTROL

Consideration should be given to BS 5250:2011+A1:2016 Code of Practice for control of condensation in buildings.

1.8 PRE-WATERPROOFING

Final Cleaning: Immediately prior to application, ensure that all surfaces are free from visible dampness and that surface lying dust, dirt and other forms of contamination are removed.

1.9 TECHNICAL - DETAILS

1.9.1 LAM - SPECIFICATION - DETAILING (UPSTANDS)

Upstand - Pre-Cut Chase:-

Inspect and carry out all necessary maintenance work to the upstand details.

- Cut new 25mm deep chases in all upstands, ensuring a minimum 150mm upstand above the finished level of the new waterproofing.
- Ensure that all chases are clean and dust free before coating.
- Apply primers to the upstands, where required.
- Dress the coating as specified onto the upstand and into the chase.
- Seal the chase using **SikaHyflex-250 Facade** once the coating has fully cured.
- Ensure that any cavity trays discharge above the finished level of waterproofing

Window Cill - Tight Under Existing Cill detail - Minimum 150mm

- Where necessary, existing cills must be raised to a minimum 150mm above the finished roof level. **Note:** This will entail the temporary removal and re-design or renewal of the glazing above the cill and its re-installation after the cill has been raised.
- Apply the primer to the upstand as specified.
- The coating is to be finished tight beneath the window cill and sealed using **SikaHyflex-250 Facade.**

1.9.2 LAM - SPECIFICATION - DETAILING (PERIMETERS)

Watercheck Perimeters:-

- Remove the existing edge trims as required and make good the substrate below.
- Ensure that waterchecks are a minimum 50mm above the finished level of the waterproofing system.
- Finish waterchecks with new **Sika Liquid Plastics type C Decotrim** edge trims.
- The trims must be fixed at **300mm** staggered centres.
- For **Type E and Type F Decotrim**, the following **Sika Liquid Plastics Mechanical Fasteners** must be used:

For Timber IW-S (45mm)

For Concrete TI-S-Z10 (45mm)

For Steel BS-S (60mm)

- Apply the specified **Sika Liquid Plastics** system as specified fully into the recess of the trim.

Note: The contractor is to confirm that the size of the specified Decotrim will suit this project and the correct fastener is used dependant on the substrate as above.

1.9.3 LAM - SPECIFICATION - DETAILING (PENETRATIONS)

Existing Penetrations:-

- Inspect any roof protrusions, i.e., vents, pipes, etc., to ensure watertightness. Repair or replace defective materials as necessary and prepare each protrusion as required in order to accept the coating.
- Apply the primer as specified to the existing penetrations prior to coating.
- Dress the coating onto and up penetrations to finish a minimum 150mm above the finished roof level. Ideally protect the exposed coating edge with a collar or skirt. Alternatively, terminate the coating under a cable clamp/tie.

1.9.4 LAM - SPECIFICATION - DETAILING (ROOFLIGHTS)

Existing Rooflights:-

- Raise rooflight kerbs as required to maintain a 150mm minimum level from the finished roof level.
- Dress the coating onto and up the existing rooflight kerb(s) to finish at a protected edge.

1.9.5 LAM - SPECIFICATION - DETAILING (DRAINAGE)

Internal Outlets:-

- Ensure that the finished level of the outlets will be lower than the existing roof level.
- Rainwater outlets (and down pipes) should be free from blockages or defects at the point of treatment. Drain covers should be in place until the preparation of surrounding areas is complete but removed prior to application to allow for coating access.
- Remove the covers immediately prior to application. Prime into the throat of the outlet as required.
- Dress the coating as far as possible into the drain throats.
- Allow the coating to cure and install a new **Sika Leafguard** by marking the diameter of the outlet on the stabilisation wings (add ca. 3mm)
- Cut the wings to length using a suitable tool such as shears
- Install the stabilisation wings into the throat of the outlet ensuring a tight fit. Leave enough of the threaded bar exposed in order to accept the basket.
- Screw the basket onto the threaded bar.

1.9.6 LAM - SPECIFICATION - DETAILING (MISCELLANEOUS)

Plant Support:-

- Install a suitable plant support system or suitably positioned concrete paving slabs to avoid point loading on the waterproofing once the coating has fully cured. Use an additional loose laid piece of **Sika Liquid Plastics' S-Felt Type T300** positioned under the supports to further protect the waterproofing.

Fixed Safety Rail Penetrations:-

- Inspect each penetration to ensure security. Repair as required and prepare in order to accept the coating.
- Apply the primer as specified to the penetrations prior to coating.
- Dress the coating onto and up each penetration, ideally terminating to a neat edge a minimum 150mm above the finished waterproofing level. Protect the exposed leading edge with a collar, skirt, clamp or tie.
- Alternatively, terminate tightly beneath the first horizontal bar.

1.10 PROPOSED SIKA LIQUID PLASTICS SYSTEM

Sikalastic® PU incorporates technology that allows the material to use atmospheric moisture to trigger the curing process. This means that the waterproofing membrane is capable of curing in a wide range of conditions, making it ideal for use in the unpredictable UK climate.

Unlike traditional polyurethane systems, it does not release CO2, which can cause gassing, and application is not delayed by adverse weather, which means roofing works are not slowed down.

SYSTEM FEATURES:

- **Cold Applied -** eliminating the risk of fire on an occupied buiding
- **Seamless -** eliminating the possibilty of joint failure through poor workmanship
- **Quick and Easy Application -** using glass fibre matting to allow simple application in detail areas
- **Cost Effective -** especially on complex roofs
- **High Elasticity -** allowing for greater thermal movement
- **Guarantees -** 10 - 15 & 20 year guarantees available
- **BBA Accreditation -** (Certfifcate No: 16/5294)
- **ETA Accreditation -** CE marked

1.11 TOP COATS

1.11.1 SIKALASTIC 625N

Roof Surfaces - Base Coat: Apply an initial embedment coat of **Sikalastic 625N** by roller/power roller to the prepared, sound roof surfaces, using a minimum quantity of **1** litre per square metre (equivalent to a maximum spread rate of **1** square metre per litre) and whilst wet, strengthen by inserting **Sika Reemat Premium** glass fibre matting, followed by rollering until the mat is completely embedded and thoroughly saturated. Overlap adjacent areas already laid by 50mm ensuring sufficient embedment material is applied to these areas. At this stage, check the coating for pinholes and/or exposed matting and apply further material to correct if necessary. Allow to dry before applying the second coat.

Top Coat: Apply a coat of **Sikalastic 625N** to these reinforced areas by roller/power roller (brushes may be used for detail work) using a minimum quantity of **1** litre per square metre to achieve an approximate overall dry film thickness of **1.5mm** (**1500** microns). Allow to dry.

Contrasting Shades: Individual coats should be applied in contrasting shades, this will help in avoiding uneven membrane thickness and assist in achieving the required film buildup overall.

Base Coat Colour: The embedment colour has yet to be agreed.

Top Coat Colour: The finishing colour has yet to be agreed.

Note: Other non standard colours are available subject to a minimum order, details on request.

Reinforcement: When embedding **Sika Reemat Premium Glass Fibre Matting** onto rough, uneven surfaces or internal angles, etc., tamping of the matting may be required. Use a soft nylon/bristle brush or small specialised roller, work the matting as required to give all round contact with the substrate.

Reinforcement: Following the embedment of **Sika Reemat Premium Glass Fibre Matting,** flatten any "wicks" or proud fibres by rollering with a loaded short pile roller.

Tenting: It is important to ensure that 'tenting' of the matting is avoided at all changes of angle by the sufficient application of the embedment membrane at these points.

Material Coverage: When applying materials, use volume to area calculations and/or wet film thickness readings where appropriate to ensure correct material coverage. Coverage rates may vary depending on substrate condition.

Completion of Waterproofing Works: On completion of waterproofing works, check the finish for pinholes, voids, damage etc. and spot treat to rectify.

1.12 DISCLAIMER

The information, and, in particular, the recommendations relating to the application and end-use of Sika Liquid Plastics products, are given in good faith based on Sika Limited's current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, unless from any written recommendations, or from any other advice offered by Sika Limited. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request.