

## IKO SYSTEMS S-A VAPOUR CONTROL LAYER

### PRODUCT INFORMATION

IKO Systems S-A (Self-Adhesive) VCL is a high performance vapour control layer composed of a polyester reinforced aluminium core, coated with a rubber modified, self-adhesive bitumen coating. The membrane is protected on the underside with a release film backing and coated on the top surface with a fine mineral finish.

Surface	Product Code
Fine Mineral	62130000



### USE

Vapour Control Layer within a warm roof build up.



Agrément Certificate  
86/1640  
Product Sheet 2



EN 13859-1:2  
0086-CPD-13970-13VCL

### FEATURES & BENEFITS

**Aluminium Core** - gives an increased resistance to the passage and penetration of water vapour  
**High tensile polyester base** – robust carrier material  
**SBS modification** – low temperature flexibility

### PERFORMANCE & COMPOSITION

<b>Composition:</b>	Modified Bitumen with Aluminium Core
<b>Form:</b>	Roll
<b>Colour:</b>	Fine Mineral
<b>General Dimension Data</b>	
<b>Length:</b>	15m
<b>Width:</b>	1m
<b>Mass/Weight:</b>	2.4kg/m <sup>2</sup>
<b>Roll Weight:</b>	36kg
<b>Carrier:</b>	Polyester
<b>Performance Data</b>	
<b>Water Vapour Resistance</b>	
<b>S<sub>d</sub> value (m):</b>	2436
<b>Water tightness (kPa) (EN1928):</b>	50
<b>Maximum Tensile Force (EN 12311-1):</b>	
	Longitudinal ≥650
	Transverse ≥500
<b>Elongation (EN 12311-1):</b>	
	Longitudinal ≥30
	Transverse ≥35
<b>Resistance to Tearing (EN 12310-1):</b>	
	Longitudinal ≥250
	Transverse ≥300
<b>Flexibility at low temperature (°C) (EN 1296):</b>	
	Upper ≤-10
	Lower ≤-10

## SPECIFICATION

All construction detailing and specification should conform to UK Building Regulations.

Relevant Codes of Practice and British Standards, should also be used for guidance, in particular it is recommended that reference is made to the relevant parts of:

BS 8747:2007 Reinforced bitumen membranes for roofing – Guide to selection and specification;  
BS 8217:2005 Code of Practice for Reinforced Bitumen Membranes for roofing;  
BS 6229:2003 Code of Practice for Flat Roofs with continuously supported roof coverings;  
BS5250:2011 Code of Practice Control of Condensation within Buildings.

Refurbishment work undertaken on existing flat roofs is likely to be reportable to Local Authority Building Control (LABC) and it is advisable that any proposed works are discussed with the LABC prior to commencement, or the installing contractor is a member of the Competent Roofer Scheme. [www.competentroofer.co.uk](http://www.competentroofer.co.uk)

Where required by building warranty providers i.e. NHBC, LABC, etc. installers and those undertaking specifications should seek guidance from Technical Standards as issued by the provider in addition to the above.

Specifiers should also seek the guidance of the National Federation of Roofing Contractors (NFRC), with particular reference to their 'Safe2Torch' campaign.

## DESIGN CONSIDERATIONS

### **CONFIGURATION**

The construction of the roof deck and ceiling has an important effect on the behaviour of the waterproofing material on top.

The term WARM ROOF is used to describe a construction where the insulation is placed above the roof deck.

The subsequent waterproofing system is then placed onto the upper surface of the insulation as illustrated within Figure 1.

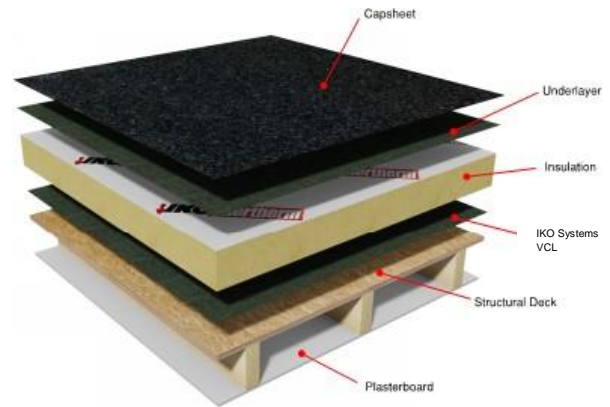


Figure 1 – Typical Warm roof build up (BUR).

### **STRUCTURAL DECKS**

It is essential that the deck is suitably fit for purpose and is structurally adequate in supporting the waterproofing system and any associated loadings. For deck selection and determining suitability, the guidance of the relevant Approved Codes of Practice should be sought.

### **FALLS AND DRAINAGE**

To reduce the effect of water ponding on the roof finish, a minimum finished fall of **1:80** should be achieved; however designs should be to 1:60 to take into account any inaccuracies within the deck construction.

### **VAPOUR CONTROL**

It is essential that roofing solutions include layers to control and inhibit the movement of vapour into the building fabric.

**IKO Systems S-A (Self-Adhesive) VCL** is a vapour control layer bonded to the top of the structural deck prior to the bonding of the insulation layer in warm flat roof construction.

## CONSTRUCTION

### **MATERIAL HANDLING**

**Checking:** Material should be checked to ensure that they conform to the project specification.

**Handling:** Material should be unloaded and handled with care to avoid damage.

**Site Storage:** Material should be stored on end on a firm, clean base protected from direct sunlight and sources of excessive heat.

A sufficient quantity of the material should be stored in an environment with an ambient temperature between 10°C and 20 °C for at least 24 hours prior to use. This will ensure the desired performance is achieved i.e. good flexibility and membrane adhesion.

## PRIOR TO COMMENCEMENT

Application must always follow good, safe working practice. Prior to commencing works, it is advisable to consult Health and Safety Executive Guidance documents such as HSG33 'Health and Safety in Roof Work', irrespective of levels of competence, to ensure all works are being planned and undertaken in a safe, pragmatic manner.

Additionally it is important to be aware of all the information given by your employers Risk Assessments and understand all Method Statements produced for undertaking the work.

Roofing contractors should be fully conversant with the guidance of the National Federation of Roofing Contractors (NFRC) 'Safe2Torch' campaign. If application proposals include the use of hot air guns, users should be competent, conversant and capable of using such items.

Care must be taken when hot air guns in close proximity to combustible materials, decorative coatings and heat sensitive materials.

## PREPARATION

Before commencement of the roofing works, the roofing contractor should ensure that the surfaces to receive the new waterproofing system are sound and capable of accepting the imposed loading of the new waterproofing system and its installation.

Existing deck substrates should be assessed by a competent roofer or suitably qualified professional to ascertain their suitability in relation to structural strength, falls and drainage provision.

The deck surface receiving the **IKO Systems S-A Vapour Control Layer** must be clean, dry and fit for purpose. Reference must be made to the respective specification document for the works for the exact primer, however typically preparation is undertaken with either **IKOpro Bonding Agent** or **IKOpro S-A (Self-Adhesive) Bitumen Primer**.

## SETTING OUT

When setting out the field area, the rolls of material should always be laid in the same direction, never cross bonded.

**IKO Systems S-A Vapour Control Layer** (VCL) should be set out to facilitate 75mm side laps and 100mm end laps. A minimum 50mm link should be achieved with the waterproofing layers at all detailing and upstand abutments, with completed detailing encapsulating the insulation entirely.

## BONDING

Membrane application temperatures must be 5 °C and rising.

Install **IKO Systems S-A Vapour Control Layer** (VCL) to the prepared substrate as soon as possible after the **IKOpro Bonding Agent/IKOpro SA Bitumen Primer** is completely dry.

**IKO Systems S-A Vapour Control Layer** has a 75mm wide self-adhesive selvedge protected with a strip of release film (zipstrip) to facilitate the bonding of the side lap.

All side (75mm) and end laps (100mm) must be fully bonded by **hot air welding** to exude a bead of bitumen from the joint. The use of torches to provide heat activation to any laps is **not** an acceptable method of application for any self-adhesive product.

When approaching an angle where the sheet will change from a horizontal to a vertical configuration, use a seam or penny roller to press the membrane firmly into position. Provide heat activation to all changes of direction of the membrane to ensure a full bond is achieved throughout the detail.



Figure 2 - Application of self-adhesive membranes.

## DETAILING

All waterproofing detailing must be undertaken in accordance with the requirements of the specific information given with the IKO Specification document. All waterproofing detailing must be undertaken as separate flashings.

## POST COMPLETION

To obtain the best possible life expectancy, all flat roofs should be inspected in accordance with the requirements of BS 6229 Code of Practice for Flat Roofs with continuously supported roof coverings.

## **DURABILITY**

When installed and conditions are maintained as per IKO literature, relevant Codes of Practice and UK Building Regulations, the product will contribute to the durability stated by the respective IKO Specification documents.

## **DISCLAIMER**

Where this product is used on a project directed by an IKO Specification document, and where omission or differing information exist, the IKO Specification document will take precedence.

Whilst every precaution is taken to ensure that the information given in this literature is correct and up to date it is not intended to form part of any contract or give rise to any collateral liability, which is hereby specifically excluded.

IKO reserve the right to amend and/or withdraw this document without notice.

Intending purchasers of our materials should therefore verify with the company whether any changes in our specification, application details, withdrawals or otherwise have taken place since this literature was issue.

## **FURTHER PRODUCT INFORMATION**

Full product literature, health & safety and technical sheets are available as downloads from our website [www.ikopolymeric.com](http://www.ikopolymeric.com) or on request by email [polymeric.marketing@iko.com](mailto:polymeric.marketing@iko.com).