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Agrément Certificate
24/7115
Product Sheet 1 Issue 1

IKO LIQUID APPLIED MEMBRANE WATERPROOFING SYSTEM

IKO METATECH ROOF WATERPROOFING SYSTEM

This Agrément Certificate Product Sheet(1) relates to the IKO metatech Roof Waterproofing System, a polymethylmethacrylate (PMMA) liquid applied roof waterproofing system for use on new and existing flat roofs with limited access and inverted flat roofs including protected zero fall roofs.

(1) Hereinafter referred to as 'Certificate'.

The assessment includes

Product factors:

- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

Process factors:

- compliance with Scheme requirements
- installation, delivery, handling and storage
- production and quality controls
- maintenance and repair

Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review

KEY FACTORS ASSESSED

Section 1. Mechanical resistance and stability
Section 2. Safety in case of fire
Section 3. Hygiene, health and the environment
Section 4. Safety and accessibility in use
Section 5. Protection against noise
Section 6. Energy economy and heat retention
Section 7. Sustainable use of natural resources
Section 8. Durability

The BBA has awarded this Certificate to the company named above for the system described herein. This system has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of issue: 18 March 2024

Hardy Giesler
Chief Executive Officer

This BBA Agrément Certificate is issued under the BBA's Inspection Body accreditation to ISO/IEC 17020. Sections marked with † are not issued under accreditation.

The BBA is a UKAS accredited Inspection Body (No. 4345), Certification Body (No. 0113) and Testing Laboratory (No. 0357).

Readers MUST check that this is the latest issue of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

The Certificate should be read in full as it may be misleading to read clauses in isolation.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

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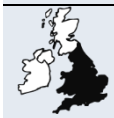
SUMMARY OF ASSESSMENT AND COMPLIANCE

This section provides a summary of the assessment conclusions; readers should refer to the later sections of this Certificate for information about the assessments carried out.

Compliance with Regulations

Having assessed the key factors, the opinion of the BBA is that the IKO metatech Roof Waterproofing System, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations:



The Building Regulations 2010 (England and Wales) (as amended)

Requirement:	**B4(2)**	**External fire spread**
Comment:		On suitable substructures, the system may enable a roof to be unrestricted by this Requirement. See section 2 of this Certificate.
Requirement:	**C2(b)**	**Resistance to moisture**
Comment:		The system will enable a roof to satisfy this Requirement. See section 3 of this Certificate.
Regulation:	**7(1)**	**Materials and workmanship**
Comment:		The system is acceptable. See sections 8 and 9 of this Certificate.

The Building (Scotland) Regulations 2004 (as amended)

Regulation:	**8(1)(2)**	**Fitness and durability of materials and workmanship**
Comment:		The use of the system can satisfy the requirements of this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	**9**	**Building standards - construction**
Standard:	2.8	Spread from neighbouring buildings
Comment:		The system, when applied to a suitable substructure, may enable a roof to be unrestricted by this Standard, with respect to clause 2.8.1(1)(2). See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The system will enable a roof to satisfy the requirements of this Standard, with reference to clauses 3.10.1(1)(2) and 3.10.6(1)(2). See section 3 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The system can contribute to meeting the relevant requirements of Regulation 9, Standards 1 to 6 and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.
Regulation:	**12**	**Building standards - conversions**
Comment:		Comments in relation to the system under Regulation 9, Standards 1 to 6 also apply to this Regulation, with reference to clause 0.12.1(1)(2) and Schedule 6(1)(2).

(1) Technical Handbook (Domestic).
(2) Technical Handbook (Non-Domestic).

The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation:	**23(1)(a)(i)(ii) (iii)(iv)(b)(i)**	**Fitness of materials and workmanship**
Comment:		The system is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	**28(b)**	**Resistance to moisture and weather**
Comment:		The system will enable a roof to satisfy this Regulation. See section 3 of this Certificate.
Regulation:	**36(b)**	**External fire spread**
Comment		On suitable substructures, the system may enable a roof to be unrestricted by this Regulation. See section 2 of this Certificate.

Additional Information

NHBC Standards 2023

In the opinion of the BBA, the IKO metatech Roof Waterproofing System, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapter 7.1 *Flat roofs, terraces and balconies*.

In addition, in the opinion of the BBA, the system, when installed and used in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards for Conversions and Renovations*, taking account of other relevant guidance within the chapter and the suitability of the substrate to receive the system.

The NHBC Standards do not cover the refurbishment of existing roofs.

Fulfilment of Requirements

The BBA has judged the IKO metatech Roof Waterproofing System to be satisfactory for use as described in this Certificate. The system has been assessed as a waterproofing system on new and existing flat roofs with limited access and inverted flat roofs including protected zero fall roofs as described in this Certificate.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the system under assessment. The IKO metatech Roof Waterproofing System is a PMMA liquid applied roof waterproofing system. The system consists of:

- IKO metatech — a two-component PMMA liquid applied roof waterproofing resin available in two colours, Stone Grey (RAL 7030) and Pebble Grey (RAL 7032). Other RAL colours are available upon request.
- IKO metatech Detail — a thixotropic two-component PMMA liquid applied roof waterproofing resin for roof details available in two colours, Stone Grey (RAL 7030) and Pebble Grey (RAL 7032). Other RAL colours are available upon request
- IKO polyester Fleece 110 — a polyester fleece of 110 $g \cdot m^{-2}$ used as a reinforcement
- IKO metatech Bitumen Primer — a transparent two-component primer based on a two-component reactive polymethyl methacrylate resin, for the preparation of bituminous and asphaltic substrates
- IKO metatech Porous Primer — a milky white two-component primer based on a two-component reactive polymethyl methacrylate resin, for the preparation of porous substrates.
- IKO perkadox – a catalyst powder used to activate all mentioned IKO metatech resins

Ancillary items

The Certificate holder recommends the following ancillary items for use with the system, but these materials have not been assessed by the BBA and are outside the scope of this Certificate:

- IKO shield PLUS ALU/SA – a bitumen carrier membrane
- IKO tech Non Porous Primer - a transparent one-component primer for metal substrates
- IKO pro Activator - a black one-component primer for TPO and FPO
- IKO metatech Floor – a three-component wearing layer based on polymethyl methacrylate as additional protection in trafficked areas and to level rough substrates of less than 10 mm depth
- IKO metatech Finish - a two-component surface sealant based on polymethyl methacrylate, available in Transparent, Stone Grey (RAL 7030), Traffic Grey A (RAL7042), Traffic Grey B (RAL7043) and Light Grey (RAL7035). Other RAL colours are available on request
- IKO deco Chips - an acrylate-based topping available in white-grey-black mixture and white-grey-beige mixture, granule size of 3mm to create a decorative finish
- IKO micro Chips - an acrylate-based topping available in light and dark mixture, granule size of 0.25-0.85 mm to create a decorative finish
- IKO quartzsand 0.6-1.2 mm - a mixture of coloured quarz granules of 0.6 - 1.2 mm available in different colours to create an anti-skid finish
- IKO quartzsand 0.3-0.6mm – a mixture of fine quarz granules of 0.3 - 0.6mm available in grey and beige to create a light anti-skid finish
- IKO metatech Mortar - a three-component mortar based on polymethyl methacrylate to level rough substrates of more than 10mm depth
- IKO metatech Surfacer - a two-component surfacer based on polymethyl methacryle to fill small cracks and joints as well as to smooth out areas of minor unevenness
- IKO metatech Detail Fiber - a fibre-reinforced liquid waterproofing based on polymethyl methacrylate to seal minor penetrations
- IKO metatech Cleaner - to clean the substrate prior to the installation of the system and to clean tools and non-polymerized stains
- IKO systems Sprayfast MPP
- IKOpro Sprayfast IBA
- IKOpro PU adhesive – an insulation adhesive
- IKO Ultra S-A VCL – a vapour control layer
- IKO enertherm expanded polystyrene (XPS) insulation
- IKO enertherm Gold PIR insulation
- IKO enertherm MG PIR insulation
- polypropylene water control layer
- 10 mm polypropylene paving supports
- 32 mm concrete paving
- 20 – 40 mm gravel ballast
- Quartz/sand additives.

The system is intended for use as a waterproofing layer in:

- new and existing flat roofs with limited access
- inverted roof specifications using aggregate ballast on flat roofs with limited access
- protected roof specifications using pavers or other suitable protection on flat and zero fall roofs with limited or pedestrian access.

Applications

The system is intended for use on the following substrates:

- concrete
- reinforced bitumen membranes.

Definitions for products and applications inspected

The following terms are defined for the purpose of this Certificate as:

- limited access roof — a roof subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters, etc
- pedestrian access roof — a roof that is not subjected to vehicular traffic
- flat roof — a roof having a minimum finished fall of 1:80
- pitched roofs — a roof having a fall in excess of 1:6
- zero falls roof — a roof having a minimum finished fall between 0 and 1:80.

Product assessment – key factors

The system was assessed for the following key factors, and the outcome of the assessments is shown below. Conclusions relating to the Building Regulations apply to the whole of the UK unless otherwise stated.

1 Mechanical resistance and stability

Not applicable.

2 Safety in case of fire

Data were assessed for the following characteristics.

2.1 External fire spread

2.1.1 When tested to CEN/TS 1187 : 2012, Test 4 and classified to BS EN 13501-5 : 2016, the constructions given in Table 1 achieved B_{ROOF}(t4) for slopes below 10°.

Table 1 Tested systems

Layer	**System 1**[1]	**System 2**[2]	**System 3**[3]
Deck	18 mm Plywood[6]	18 mm OSB[6]	18 mm OSB[6]
Primer	IKO Systems Sprayfast MPP Bitumen Primer[6]	metatech Porous Primer[6]	metatech Porous Primer[6]
AVCL	IKO Systems S-A VCL[6]	—	—
Adhesive	IKOpro PU adhesive[6]	—	—
Insulation	120 mm Enertherm Gold PIR Insulation[6]	—	—
Primer	IKO systems Sprayfast MPP Bonding Primer[6]	—	—
Carrier membrane	IKO Systems H-A underlay[6]	—	—
Base layer	1.3 mm metatech	metatech applied at 1.5 kg·m^{-2}	metatech applied at 1.5 kg·m^{-2}
Reinforcement	IKO polyester Fleece 110	IKO polyester Fleece 110	IKO polyester Fleece 110
Top Layer	0.7 mm metatech	metatech applied at 1.5 kg·m^{-2}	metatech applied at 1.5 kg·m^{-2}
Insulation	—	100 mm IKO Enertherm XPS Insulation[6]	Two 245 mm IKO Enertherm XPS Insulation boards[6]
Water flow reducing layer	—	IKO Enertherm Water Control Layer[6]	IKO Enertherm Water Control Layer[6]
Ballast	—	50 mm thick 20 - 40 mm gravel ballast[6]	50 mm thick 20 - 40 mm gravel ballast[6]

Layer	**System 4**[4]	**System 5**[5]
Deck	18 mm OSB[6]	18 mm OSB[6]
Primer	metatech Porous Primer[6]	metatech Porous Primer[6]
AVCL	—	—
Adhesive	—	—
Insulation	—	—
Primer	—	—
Carrier membrane	—	—
Base layer	metatech applied at 1.5 kg·m^{-2} (6 mm)	metatech applied at 1.5 kg·m^{-2}
Reinforcement	—	IKO Polyester Fleece 110
Top Layer	metatech applied at 2.1 kg·m^{-2} (1.5 mm)	metatech applied at 1.5 kg·m^{-2}
Insulation	100 mm IKO Enertherm XPS Insulation[6]	Two 245 mm IKO Enertherm XPS Insulation boards[6]
Water flow reducing layer	IKO Enertherm Water Control Layer[6]	IKO Enertherm Water Control Layer[6]
Ballast	32 mm thick concrete paving slab[6] on IKO Adjustable Paving Support Pads [6]	32 mm thick concrete paving slab[6] on IKO Adjustable Paving Support Pads [6]

(1) Fire test/classification reports 20543A and 20543C conducted by Warrington Fire. Reports available from the Certificate holder.
(2) Fire test/classification reports P124081-1000 and P124081-1001 conducted by BRE. Reports available from the Certificate holder.
(3) Fire test/classification reports P124082-1000 and P124082-1001 conducted by BRE. Reports available from the Certificate holder.
(4) Fire test/classification reports P124083-1000 and P124083-1001 conducted by BRE. Reports available from the Certificate holder.
(5) Fire test/classification reports P124084-1000 and P124084-1001 conducted by BRE. Reports available from the Certificate holder.
(6) This component is outside the scope of this Certificate.

2.1.2 On the basis of data assessed, constructions listed in Table 1 will be unrestricted by the documents supporting the national Building Regulations with respect to proximity to a relevant boundary. Restrictions may apply at junctions with compartment walls.

2.1.3 When used in conjunction with one of the inorganic coverings listed in the Annex of Commission Decision 2000/553/EC, the systems will be similarly unrestricted.

2.1.4 The designation and permissible areas of use of other specifications must be confirmed by reference to the requirements of the documents supporting the national Building Regulations

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Weathertightness

3.1.1 Results of weathertightness tests are given in Table 2.

Table 2 Weathertightness test results

Product assessed	Assessment method	Requirement	Result
IKO metatech Roof Waterproofing System	Watertightness to EAD 030350-00-0402 : 2018, Annex A4.11	No leakage	Pass
IKO metatech Roof Waterproofing System	Equivalent air layer thickness (s_d) to BS EN 1931 : 2000 (method B)	Value achieved	8.8 m
IKO metatech Roof Waterproofing System on concrete	Delamination to EAD 030350-00-0402 : 2018, Annex A4.1	≥50 kPa	Pass
IKO metatech Roof Waterproofing System on bitumen membrane			Pass

3.1.2 On the basis of data assessed, the system will adequately resist the passage of moisture to the inside of a building and so satisfy the requirements of the national Building Regulations.

3.1.3 On the basis of data assessed, the adhesion of the system is sufficient to resist the effects of wind suction likely to occur in practice and remain weathertight.

3.1.4 The resistance to wind uplift for warm roofs will be dependent on the cohesive strength of the insulation and the method by which it is secured to the roof deck. This must be taken into account when selecting a suitable insulation material.

3.2 Resistance to mechanical damage

3.2.1 Results of resistance to mechanical damage tests are given in Table 3.

Table 3 Resistance to mechanical damage results

Product assessed	Assessment method	Requirement	Result
IKO metatech Roof Waterproofing System	Tensile strength to BS EN ISO 527-4 : 1997 control control cured at 5°C control cured at 30°C	Value achieved	 527 N·(50 mm)$^{-1}$ 641 N·(50 mm)$^{-1}$ 571 N·(50 mm)$^{-1}$
IKO metatech Roof Waterproofing System	Elongation to BS EN ISO 527-4: 1997 control control cured at 5°C control cured at 30°C	Value achieved	 55 % 71 % 67 %
IKO metatech Roof Waterproofing System on steel	Dynamic indentation to EAD 030350-00-0402 : 2018, Annex A4.3 tested at 23°C tested at -30°C cured at 5°C and tested at 23°C cured at 30°C and tested at 23°C	Value achieved	 I_4 I_4 I_4 I_4
IKO metatech Roof Waterproofing System on bitumen membrane over insulation	tested at 23°C		I_3
IKO metatech Roof Waterproofing System on steel	Static indentation to EAD 030350-00-0402 : 2018, Annex A4.4 tested at 23°C	Value achieved	 L_4
IKO metatech Roof Waterproofing System on bitumen membrane over insulation	Static indentation to EAD 030350-00-0402 : 2018, Annex A4.4 tested at 23°C		L_4
IKO metatech Roof Waterproofing System	Fatigue to EAD 030350-00-0402 : 2018, Annex A4.5 1000 cycles	Watertight and less than 75 mm delamination from substrate	Pass

3.2.2 On the basis of data assessed, the system can accept, without damage, the foot traffic and light concentrated loads associated with installation, maintenance and pedestrian traffic on defined walkways and the effects of minor movement likely to occur in practice while remaining weathertight.

3.2.3 Where traffic in excess of the examples given in section 3.2.2 is envisaged, such as for maintenance of lift equipment, a suitable walkway must be provided (for example, using concrete slabs supported on bearing pads). Reasonable care must be taken to avoid puncture by sharp objects or concentrated loads.

4 Safety and accessibility in use

Not applicable.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Not applicable.

7 Sustainable use of natural resources

Not applicable.

8 Durability

8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in this system was assessed.

8.2 Specific test data were assessed for the following as given in Table 4.

Table 4 Durability test results

Product assessed	Assessment method	Requirement	Result
IKO metatech Roof Waterproofing System	Tensile strength to BS EN ISO 527-4 : 1997 Heat aged for 200 days at 70°C to EAD 030350-00-0402 : 2018, Annex A4.8 UV aged for 1000 MJ·m^{-2} at 50°C to EAD 030350-00-0402 : 2018, Annex A4.7	Value achieved	635 N·(50 mm)$^{-1}$ 598 N·(50 mm)$^{-1}$
IKO metatech Roof Waterproofing System	Elongation to BS EN ISO 527-4 : 1997 Heat aged for 200 days at 70°C to EAD 030350-00-0402 : 2018, Annex A4.8 UV aged for 1000 MJ·m^{-2} at 50°C to EAD 030350-00-0402 : 2018 Annex A4.7	Value achieved	52% 36%
IKO metatech Roof Waterproofing System on concrete	Delamination to EAD 030350-00-0402 : 2018, Annex A4.1	≥50 kPa	Pass
IKO metatech Roof Waterproofing System on bitumen membrane	After water exposure 180 days at 60°C to EAD 030350-00-0402 : 2018, Annex A4.9		Pass
IKO metatech Roof Waterproofing System on steel	Dynamic indentation to EAD 030350-00-0402 : 2018, Annex A4.3 Heat aged for 200 days at 70°C to EAD 030350-00-0402 : 2018, Annex A4.8 UV aged for 1000 MJ·m^{-2} at 50°C to EAD 030350-00-0402 : 2018, Annex A4.7	Value achieved	I_4 I_4
IKO metatech Roof Waterproofing System on steel	Static indentation to EAD 030350-00-0402 : 2018, Annex A4.4 After water exposure 180 days at 60°C to EAD 030350-00-0402 Annex A4.9 tested at 90°C	Value achieved	L_4
IKO metatech Roof Waterproofing System	Fatigue to EAD 030350-00-0402 : 2018, Annex A4.5 50 cycles after heat ageing for 200 days at 70°C to EAD 030350-00-0402 : 2018, Annex A4.8	Watertight and less than 75 mm delamination from substrate	Pass

8.3 Service life

8.3.1 Under normal service conditions, the system will have a life of at least 25 years, provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

8.3.2 Where the system is used in a fully protected specification and is subjected to normal service conditions, it will provide an effective barrier to the transmission of liquid water and water vapour for the design life of the roof in which it is incorporated, provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

PROCESS ASSESSMENT

Information provided by the Certificate holder was assessed for the following factors:

9 Design, installation, workmanship and maintenance

9.1 Design

9.1.1 The design process was assessed, and the following requirements apply in order to satisfy the performance assessed in this Certificate.

9.1.2 Decks to which the system is to be applied must comply with the relevant requirements of BS 6229 : 2018 and, where appropriate, *NHBC Standards* 2023, Chapter 7.1.

9.1.3 For design purposes of flat roofs, twice the minimum finished fall must be assumed, unless a detailed analysis of the roof is available, including overall and local deflection and direction of falls.

9.1.4 In areas of pedestrian access, appropriate precautions against slip must be taken.

9.1.5 Structural decks to which the system is to be applied must be suitable to transmit the dead and imposed loads experienced in service. Allowance needs to be made for loading deflections to ensure that the free drainage of water is maintained.

9.1.6 Imposed loads, dead loading and wind loads must be calculated by a suitably experienced and competent individual in accordance with BS EN 1991-1-1 : 2002, BS EN 1991-1-3 : 2003 and BS EN 1991-1-4 : 2005, and their UK National Annexes.

9.1.7 The ballast requirements for the insulation in inverted roof specification components must be calculated by a suitably experienced and competent individual in accordance with the relevant parts of BS EN 1991-1-4 : 2005 and its UK National Annex. The insulation must always be ballasted with a minimum depth of 50 mm of aggregate or paving. In areas of high-wind exposure, the Certificate holder's advice must be sought.

9.1.8 The drainage system for inverted and zero fall roofs, must be correctly designed, and the following points must be addressed:

- provision made for access for maintenance purposes
- for zero fall roofs, it is particularly important to identify the correct drainage points, to ensure that drainage is sufficient and effective
- the approach given in BBA Information Bulletin No 4 *Inverted roofs – Drainage and U value corrections* must be followed.

9.1.9 Insulation materials to be used in conjunction with the system must be in accordance with the Certificate holder's instructions and be either:

- as described in the relevant clauses of BS 6229 : 2018, or
- the subject of a current BBA Certificate and be used in accordance with, and within the limitations of, that Certificate.

9.2 Installation

9.2.1 Installation instructions provided by the Certificate holder were assessed and judged to be appropriate and adequate.

9.2.2 Installation of the system must be carried out in accordance with the relevant clauses of BS 8000-0 : 2014, BS 8000-4 : 1989, the Certificate holder's instructions and this Certificate. Additional instructions and guidance are provided in Annex A of this Certificate.

9.2.3 The system's components must be applied when the air and substrate temperatures are greater than 5°C, rising to a maximum air temperature of 30°C. The system must not be installed in rain, snow, fog or misty conditions.

9.2.4 Detailing (eg upstands) must be carried out in accordance with the Certificate holder's instructions.

9.2.5 Substrates on which the system is to be applied must be properly prepared in accordance with the Certificate holder's instructions.

9.2.6 Adhesion to substrates will depend on the condition and cleanness of the substrate. Substrates must be visibly dry, sound and free from loose materials or contamination (eg moss or algae). The maximum moisture content of the substrate must measure 18% on the wood scale using a Protimeter or a maximum of 6% measured using a Tramex/Doser.

9.2.7 Damaged areas of the substrate (eg blistered membrane) must be removed, replaced or repaired. Substrate defects (eg shallow-bottomed cracks and indentations) are filled in accordance with the Certificate holder's instructions.

9.2.8 Deck surfaces must be free from sharp projections such as concrete nibs.

9.2.9 The primers are applied using a brush or short nap roller at the coverage rates given in Table 5.

Table 5 Primer application rates

Primer	Application rate
IKO metatech Bitumen Primer	0.4 – 0.8 $kg \cdot m^{-2}$
IKO metatech Porous Primer	0.4 – 0.8 $kg \cdot m^{-2}$
IKO tech Non Porous Primer	0.1 – 0.2 $l \cdot m^{-2}$
IKO pro Activator	0.2 $l \cdot m^{-2}$

9.2.10 The primer must be dry before applying the first waterproofing layer.

9.2.11 The system is applied using a brush or short nap roller in accordance with the Certificate holder's instructions and at the application rates given in Table 6.

Table 6 System build-up and application rates

Base coat	IKO metatech at 1.5 $kg \cdot m^{-2}$ minimum
Reinforcement	IKO polyester Fleece 110
Top coat	IKO metatech at 1.5 $kg \cdot m^{-2}$ minimum
Finished thickness (mm)	2.0 minimum

9.2.12 The IKO polyester 110 reinforcement fleece must be rolled onto the wet base coat, using a roller and ensuring that the fleece is fully saturated. There must not be any air bubbles between the first layer and the reinforcement fleece. There must be a 50 mm overlap on the edges of the reinforcement fleece. The second layer of IKO metatech is then immediately applied.

9.2.13 IKO metatech Detail is applied at the same rate as the IKO metatech and reinforced in accordance with the Certificate holder's instructions.

9.2.14 The NHBC requires that system, once installed, is inspected in accordance with *NHBC Standards* 2023, Chapter 7, Clause 7.1.11, and undergoes an appropriate integrity test, where required. Any damage to the system assessed in this Certificate must be repaired in accordance with section 9.4 of this Certificate and reinspected, in order to maintain system performance.

9.3 Workmanship

Practicability of installation was assessed by the BBA on the basis of the Certificate holder's information. To achieve the performance described in this Certificate, the system must only be installed by contractors who have been trained and approved by the Certificate holder.

9.4 Maintenance and repair

9.4.1 Ongoing satisfactory performance of the system in use requires that it is suitably maintained. The guidance provided by the Certificate holder was assessed by the BBA and found to be appropriate and adequate.

The following requirements apply in order to satisfy the performance assessed in this Certificate:

9.4.2 The system must be the subject of six-monthly inspections and maintenance in accordance with the recommendations of BS 6229 : 2018, Chapter 7, and the Certificate holder's own maintenance requirements, where relevant, to ensure continued satisfactory performance.

9.4.3 If minor damage occurs, it must be rectified by cleaning back to unweathered material and an appropriate remedial system applied to the damaged area in accordance with the Certificate holder's instructions.

10 Manufacture

10.1 The production processes for the system have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:

10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.

10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.

10.1.3 The quality control procedures and product testing to be undertaken have been assessed and deemed appropriate and adequate.

10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.

10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process, and that equipment has been properly tested and calibrated.

† 10.2 The BBA has undertaken to review the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

11 Delivery and site handling

11.1 The Certificate holder stated that the system components are delivered to site in packaging bearing the component name, the Certificate holder's name, health and safety information, colour and weight of the contents in kilograms.

11.2 Delivery and site handing must be performed in accordance with the Certificate holder's instructions and this Certificate, including:

11.2.1 The system components must be stored in the hermetically sealed packaging in dry, cool and frost-free location.

ANNEX A – SUPPLEMENTARY INFORMATION †

Supporting information in this Annex is relevant to the system but has not formed part of the material assessed for the Certificate.

Construction (Design and Management) Regulations 2015
Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

CLP Regulations

The Certificate holder has taken the responsibility of classifying and labelling the system components under the *GB CLP Regulation* and *CLP Regulation (EC) No 1272/2008 - classification, labelling and packaging of substances and mixtures*. Users must refer to the relevant Safety Data Sheets.

CE marking

The Certificate holder has taken the responsibility of CE marking the system, in accordance with harmonised EAD 030350-00-0402 : 2018.

Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of EN ISO 9001 : 2015 and EN ISO 14001 : 2015 by Bureau Veritas (Certificates BEO12607 and BEO12609, respectively}.

Additional information on installation

Installation must be in accordance with the Certificate holder's instructions and this Certificate.

A.1 Installation should also be in accordance with the relevant clauses of Liquid Roofing and Waterproofing Association (LRWA) Note 7 – *Specifier Guidance for Flat Roof Falls*.

A.2 The Certificate holder recommends that the resin components are mixed using a double helix mixer at low speed and that the required quantity of catalyst is added, while stirring and mixing for two minutes.

Bibliography

BS 6229 : 2018 *Flat roofs with continuously supported flexible waterproof coverings — Code of practice*

BS 8000-0 : 2014 *Workmanship on construction sites — Introduction and general principles*
BS 8000-4 : 1989 *Workmanship on building sites — Code of practice for waterproofing*

BS EN 1931 : 2000 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of water vapour transmission properties*

BS EN 1991-1-1 : 2002 Eurocode 1 : *Actions on structures — General actions— Densities, self-weight, imposed loads for buildings*
NA to BS EN 1991-1-1 : 2002 UK National Annex to Eurocode 1 : *Actions on structures — General actions— Densities, self-weight, imposed loads for buildings*
BS EN 1991-1-3 : 2003 + A1 : 2015 Eurocode 1 : *Actions on structures — General actions — Snow loads*
NA to BS EN 1991-1-3 : 2003 + A1 : 2015 UK National Annex to Eurocode 1 : *Actions on structures — General actions — Snow loads*
BS EN 1991-1-4 : 2005 + A1 : 2010 Eurocode 1 : *Actions on structures — General actions — Wind actions*
NA to BS EN 1991-1-4 : 2005 + A1 : 2010 UK National Annex to Eurocode 1 : *Actions on structures — General actions — Wind actions*

BS EN 13501-5 : 2016 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roof tests*

BS EN ISO 527-4 : 1997 Plastics — Determination of tensile properties — Test conditions for isotropic and orthotropic fibre-reinforced plastic composites

CEN/TS 1187 : 2012 *Test methods for external fire exposure to roofs*

EAD 030350-00-0402 : 2018 *European assessment document — liquid applied roof waterproofing kits*

EN ISO 9001 : 2015 *Quality management systems — Requirements*

EN ISO 14001 : 2015 *Environmental management systems — Requirements with guidance for use*

Conditions of Certificate

Conditions

1 This Certificate:

- relates only to the product that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
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3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

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- actual installations of the product, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to UKCA marking and CE marking.

6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product which is contained or referred to in this Certificate is the minimum required to be met when the product is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.

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