

## Maris Polymers S.M.S.A

Industrial Area of Inofita  
Inofita  
32011  
Greece

Tel: 00 30 22620 32918-9

e-mail: info@marispolymers.gr

website: www.marispolymers.com



**Agrément Certificate**

**17/5443**

Product Sheet 1 Issue 3

## MARIS POLYMERS LIQUID APPLIED ROOF WATERPROOFING SYSTEMS

### MARISEAL 250 SYSTEMS

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to MARISEAL 250 Systems, a range of cold-applied, one-component polyurethane membrane systems, for use as liquid applied roof waterproofing on flat and pitched roofs with limited access and on flat roofs with pedestrian access.

(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 systems described herein. These systems have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Third issue: 10 September 2024

Originally certified on 25 July 2017

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.*

#### British Board of Agrément

1<sup>st</sup> Floor, Building 3, Hatters Lane  
Croxley Park, Watford  
Herts WD18 8YG

©2024

tel: 01923 665300  
clientservices@bbacerts.co.uk  
www.bbacerts.co.uk

## 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 MARISEAL 250 Systems, 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)

<b>Requirement:</b>	<b>B4(1)</b>	<b>External fire spread</b>
Comment:		The systems are restricted by this Requirement in some circumstances. See section 2 of this Certificate.
<b>Requirement:</b>	<b>B4(2)</b>	<b>External fire spread</b>
Comment:		On a suitable substructure, the systems may enable a roof to be unrestricted under this Requirement. See section 2 of this Certificate.
<b>Requirement:</b>	<b>C2(b)</b>	<b>Resistance to moisture</b>
Comment:		The systems will enable a roof to satisfy this Requirement. See section 3 of this Certificate.
<b>Regulation:</b>	<b>7(1)</b>	<b>Materials and workmanship</b>
Comment:		The systems are acceptable. See sections 8 and 9 of this Certificate.



#### The Building (Scotland) Regulations 2004 (as amended)

<b>Regulation:</b>	<b>8(1)(2)</b>	<b>Fitness and durability of materials and workmanship</b>
Comment:		The use of the systems can satisfy the requirements of this Regulation. See sections 8 and 9 of this Certificate.
<b>Regulation:</b>	<b>9</b>	<b>Building standards - construction</b>
Standard:	2.8	Spread from neighbouring buildings
Comment:		The systems, when applied to a suitable substructure, may enable a roof to be unrestricted by this Standard with reference to clause 2.8.1 <sup>(1)(2)</sup> . See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The systems will enable a roof to satisfy this Standard, with reference to clauses 3.10.1 <sup>(1)(2)</sup> and 3.10.7 <sup>(1)(2)</sup> . See section 3 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The systems can contribute to satisfying 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.
<b>Regulation:</b>	<b>12</b>	<b>Building standards - conversion</b>
Comment:		Comments in relation to the systems under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 <sup>(1)(2)</sup> and Schedule 6 <sup>(1)(2)</sup> .

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).



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

<b>Regulation:</b>	<b>23(1)(a)(i)(ii)</b>	<b>Fitness of materials and workmanship</b>
<b>Comment:</b>	<b>(iii)(iv)(b)(i)</b>	The systems are acceptable. See sections 8 and 9 of this Certificate.
<b>Regulation:</b>	<b>28(b)</b>	<b>Resistance to moisture and weather</b>
<b>Comment:</b>		The systems will enable a roof to satisfy this Regulation. See section 3 of this Certificate.
<b>Regulation:</b>	<b>36(a)</b>	<b>External fire spread</b>
<b>Comment:</b>		The systems are restricted by this Regulation in some circumstances. See section 2 of this Certificate.
<b>Regulation:</b>	<b>36(b)</b>	<b>External fire spread</b>
<b>Comment:</b>		On a suitable substructure, the systems may enable a roof to be unrestricted by this Regulation. See section 2 of this Certificate.

### Additional Information

#### NHBC Standards 2024

In the opinion of the BBA, MARISEAL 250 Systems 2, 3 and 4, (as given in Table 6), 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, Systems 2, 3 and 4, as defined in Table 6 of this Certificate, 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 suitability of the substrate to receive the systems.

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

### Fulfilment of Requirements

The BBA has judged MARISEAL 250 Systems to be satisfactory for use as described in this Certificate. The systems have been assessed for use as liquid-applied roof waterproofing on new and existing flat and pitched roofs with limited access, and on flat roofs with pedestrian access.

### ASSESSMENT

#### Product description and intended use

The Certificate holder provided the following description for the systems under assessment. MARISEAL 250 Systems consist of:

- MARISEAL 250 — a cold-applied and cold-curing, one-component polyurethane membrane based on elastomeric hydrophobic resins. Available in white and light grey
- MARISEAL FABRIC — a non-woven polyester reinforcement used to reinforce the systems (available as 60 or 110 g·m<sup>-2</sup>)
- MARISEAL 710 — a solvent-based polyurethane for porous substrate preparation
- MARISEAL 400 — a one component liquid applied roof waterproofing based on an aliphatic polyurethane, for application over dry MARISEAL 250
- MARISEAL Katalysator — an accelerating additive for use with the MARISEAL 250
- MARISEAL AQUA PRIMER — a water-based, two-part epoxy primer for porous and non-porous substrate preparation
- MARISEAL TPO PRIMER — a transparent, solvent based, one-component adhesion promoter.

## Applications

The Systems are available in four specifications as defined in Table 6 of this Certificate.

The systems are intended for use on the following substrates:

- concrete
- mortar
- ceramic
- polyurethane (PU) insulation
- steel
- ethylene propylene diene monomer (EPDM) and bituminous waterproofing 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
- flat roof — a roof having a minimum finished fall of 1:80
- pitched roof — a roof having a fall in excess of 1:6
- pedestrian access roof — a roof not subjected to vehicular traffic.

## **Product assessment – key factors**

The systems were 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 construction<sup>(1)</sup> given in Table 1 of this Certificate achieved B<sub>ROOF</sub>(t4) for slopes below 10°.

*Table 1 Tested system*

Substrate	First layer	Reinforcement layer	Second layer	Top coat
8 mm fibre cement board <sup>(2)</sup>	MARISEAL 250 0.53 mm thick 800 g·m <sup>-2</sup> (roller applied)	MARISEAL FABRIC 110 g·m <sup>-2</sup> (rolled onto first layer while still wet)	MARISEAL 250 0.53 mm thick 800 g·m <sup>-2</sup> (roller applied)	MARISEAL 250 0.53 mm thick 800 g·m <sup>-2</sup> (roller applied)

(1) Fire test and classification reports, reference 21240C and 21240D, respectively, conducted by Warrington Fire, Gent. Reports available from the Certificate holder on request.

(2) This component is outside the scope of this Certificate.

2.1.2 On the basis of data assessed, the construction 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 A roof incorporating the systems will be similarly unrestricted in protected or inverted roof specifications, including an inorganic covering listed in the Annex of Commission Decision 2000/553/EC.

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

## 2.2 Reaction to fire

2.2.1 The Certificate holder has declared a reaction to fire classification to EN 13501-1 : 2018 as Class E for Systems 1 and 2, as defined in Table 6 of this Certificate.

(1) Test report 3570/7053-2/03, by IBMB MPA, copies available from the Certificate holder on request.

2.2.2 The Certificate holder has not declared a reaction to fire classification to EN 13501-1 : 2018 for Systems 3 and 4, as defined in Table 6 of this Certificate.

2.2.3 On the basis of data assessed, the systems will be restricted in use under the documents supporting the national Building Regulations.

2.2.4 In England, the systems, when used in pitches greater than 70°, excluding upstands, must not be used less than 1 m from a relevant boundary, or on residential buildings more than 11 m in height or on other buildings more than 18 m in height. Restrictions apply on assembly and recreation buildings. These constructions must also be included in calculations of unprotected area.

2.2.5 In Wales and Northern Ireland, Systems 1 and 2, as defined in Table 6 of this Certificate, when used in roof pitches greater than 70°, excluding upstands, must not be used less than 1 m from a relevant boundary, or on other buildings more than 18 m in height. Restrictions apply on assembly and recreation buildings. These constructions must also be included in calculations of unprotected area.

2.2.6 In Wales, Systems 3 and 4, as defined in Table 6 of this Certificate, when used in roof pitches greater than 70°, excluding upstands, must not be used less than 1 m from a relevant boundary, or on other buildings more than 18 m in height. Restrictions apply on assembly and recreation buildings. These constructions must also be included in calculations of unprotected area.

2.2.7 In Northern Ireland, when used in pitches greater than 70°, excluding upstands, Systems 3 and 4, as defined in Table 6 of this Certificate, do not achieve the minimum Class E reaction to fire classification to EN 13501-1 : 2018, and designers must seek guidance on the proposed use of the systems from the relevant Building Control Body.

2.2.8 In Scotland, the use of the systems is unrestricted with respect to building height and proximity to a relevant boundary. However, restrictions on the overall construction may apply, depending on the reaction to fire classification achieved by the build-up, which must be established on a case-by-case basis.

## 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 Results of weathertightness tests*

Product assessed	Assessment method	Requirement	Result
MARISEAL 250	Resistance to water vapour to EN 1931 : 2000	Declared value $\mu > 1500$	Pass
MARISEAL 250	Watertightness to EOTA TR 003 : 2004	No evidence of water leakage	Pass
MARISEAL 250	Delamination to EOTA TR 004 : 2004	$\geq 50$ kPa	Pass
- on concrete			Pass
- on steel			Pass
- on PU insulation			Pass
- on day joint			Pass

3.1.2 On the basis of data assessed, the systems 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 The adhesion of the systems is sufficient to resist the effects of wind suction, elevated temperature and thermal shock conditions likely to occur in practice and remain weathertight.

### 3.2 Resistance to mechanical damage

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

<i>Table 3 Results of mechanical damage tests</i>			
Product assessed	Assessment method	Requirement	Result
MARISEAL 250 on steel (without internal mesh)	Dynamic indentation to EOTA TR 006 : 2004 tested at 23°C tested at -30°C cured at 5°C, tested at 23°C cured at 40°C, tested at 23°C	Value achieved	L4
			L4
			L4
			L4
MARISEAL 250 on PU insulation (without internal mesh)	tested at 23°C tested at -30°C cured at 5°C, tested at 23°C cured at 40°C, tested at 23°C		L3
			L2
			L3
			L3
MARISEAL 250 on steel (with internal mesh)	tested at 23°C tested at -30°C		L4
			L3
MARISEAL 250 on PU insulation (with internal mesh)	tested at 23°C tested at -30°C		L4
			L2
MARISEAL 250 on steel (without internal mesh)	Static indentation to EOTA TR 007 : 2004 tested at 23°C tested at 90°C cured at 5°C, tested at 23°C cured at 40°C, tested at 23°C	Value achieved	L4
			L2
			L4
			L4
MARISEAL 250 on PU insulation (without internal mesh)	tested at 23°C tested at 90°C cured at 5°C, tested at 23°C cured at 40°C, tested at 23°C		L3
			L1
			L2
			L2
MARISEAL 250 on steel (with internal mesh)	tested at 23°C tested at 90°C		L4
			L3
MARISEAL 250 on PU insulation (with internal mesh)	tested at 23°C tested at 90°C		L4
			L2
MARISEAL 250	Fatigue cycling to EOTA TR 008 : 2004 1000 cycles	Watertight and less than 75 mm delamination from substrate	Pass
MARISEAL 250 without internal mesh	Tensile strength to EN ISO 527-3 : 1995 control cured at 5°C cured at 40°C	Value achieved	4.3 MPa
			5 MPa
			5 MPa
MARISEAL 250 with internal mesh	control		7.6 MPa
MARISEAL 250 without internal mesh	Elongation to EN ISO 527-3 : 1995 control cured at 5°C cured at 40°C	Value achieved	585%
			438%
			361%
MARISEAL 250 with internal mesh	control		26%

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

3.2.3 Where traffic in excess of this is envisaged, such as for maintenance of lift equipment, a 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**

The systems have a low coefficient of friction when wet and therefore walkways for maintenance traffic or roofs with pedestrian access must be provided (for example, a suitable aggregate incorporated into the final coat or pavers and suitable bearing pads).

#### **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 the systems were assessed.

8.2 Specific test data were assessed, as given in Table 4.

**Table 4 Results of durability tests**

Products accessed	Assessment method	Requirement	Results
MARISEAL 250	Fatigue cycling to EOTA TR 008 : 2004 after heat ageing to EOTA TR 011 : 2004 at 80°C for 200 days, 50 cycles	Watertight and less than 75 mm delamination from substrate	Pass
MARISEAL 250 - on concrete - on PU insulation	Delamination to EOTA TR 004 : 2004 after exposure to water to EOTA TR 012 : 2004 at 60°C for 180 days	≥50 kPa	Pass Pass
MARISEAL 250 - on steel (without internal mesh) - on PU insulation (without internal mesh) - on steel (with internal mesh) - on PU insulation (with internal mesh)	Dynamic indentation to EOTA TR 006 : 2004 after heat ageing at 80°C for 200 days to EOTA TR 011 : 2004 tested at -30°C	Value achieved	I <sub>4</sub> I <sub>1</sub> I <sub>4</sub> I <sub>2</sub>
- on steel (without internal mesh) - on PU insulation (without internal mesh) - on steel (with internal mesh) - on PU insulation (with internal mesh)	after UVA ageing for 5000 hours light hours tested at -10°C		I <sub>3</sub> I <sub>2</sub> I <sub>4</sub> I <sub>3</sub>
MARISEAL 250 - on steel (without internal mesh) - on PU insulation (without internal mesh) - on steel (with internal mesh) - on PU insulation (with internal mesh)	Static indentation to EOTA TR 007 : 2004 after exposure to water at 60°C for 60 days to EOTA TR 012 : 2004 tested at 90°C	Value achieved	L <sub>2</sub> L <sub>1</sub> L <sub>2</sub> L <sub>2</sub>
- on steel (without internal mesh) - on steel (with internal mesh)	after exposure to water at 60°C for 180 days to EOTA TR 012 : 2004 tested at 30°C		L <sub>3</sub> L <sub>3</sub>
MARISEAL 250 without internal mesh	Tensile strength to EN ISO 527-3 : 1995 after heat ageing at 80°C for 200 days to EOTA TR 011 : 2004	Value achieved	2.5 MPa
MARISEAL 250 with internal mesh			6 MPa
MARISEAL 250 without internal mesh	after UVA ageing for 5000 light hours		7 MPa
MARISEAL 250 without internal mesh	Tensile strength to EN ISO 527-3 : 1995 after heat ageing at 80°C for 200 days to EOTA TR 011 : 2004	Value achieved	135%
MARISEAL 250 with internal mesh			40%
MARISEAL 250 without internal mesh	after UVA ageing for 5000 light hours		860%

### 8.3 Service life

Under normal service conditions, System 1<sup>(1)</sup> will have a life expectancy of at least 10 years and Systems 2,3 and 4<sup>(1)</sup> will have a life of at least 25 years, provided they are designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

(1) As defined in Table 6 of this Certificate



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 systems are to be applied must comply with the relevant requirements of BS 6229 : 2018 and, where appropriate, *NHBC Standards 2024*, Chapter 7.1.

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

9.1.4 Imposed loads, dead loading and wind loads are calculated 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.

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

- as described in the relevant clauses of BS 6229 : 2018, or
- the subject of a current BBA Certificate and 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 systems must be in accordance with the relevant clauses of BS 8000-0 : 2014, BS 8000-4 : 1989, the Certificate holder's instructions and this Certificate.

9.2.3 All of the components must be applied when the air and substrate temperatures are greater than 5°C. Special precautions may be necessary when temperatures exceed 30°C; advice can be obtained from the Certificate holder but such advice is outside the scope of this Certificate.

9.2.4 Substrates on which the systems are to be applied must be properly prepared in accordance with the Certificate holder's instructions.

9.2.5 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).

9.2.6 Damaged areas of the substrate must be removed, replaced or repaired. Substrate defects (eg shallow-bottomed cracks and indentations) must be filled. The Certificate holder can advise on suitable filling materials, but such advice is outside the scope of this Certificate.

9.2.7 All points of potential weakness such as splits, cracks, joints and crazed surfaces must be additionally reinforced in accordance with the Certificate holder's instructions prior to application of the main system.

9.2.8 Deck surfaces must be free from sharp projections, such as protruding fixing bolts and concrete nibs.

9.2.9 Priming is carried out in accordance with the Certificate holder's instructions with the appropriate primer for the substrate, using the coverage rates given in Table 5.

**Table 5 Priming**

Primer	Substrate type	Coverage rate
MARISEAL 710	Porous	200 g·m <sup>-2</sup> in one layer
MARISEAL AQUA PRIMER	Non-porous	100 – 200 g·m <sup>-2</sup> in one or two layers
MARISEAL TPO PRIMER	EDPM membranes	50 – 60 g·m <sup>-2</sup>

9.2.10 Application can be by brush, roller or airless spray. Brush application is normally used only for small roof areas and for embedding the reinforcement into the waterproofing.

9.2.11 Prior to application, checks must be made to ensure that the substrate is dry (ie free from rainwater, surface condensation and frost) and that the prevailing weather and site conditions are correct. The following normal limitations apply:

- application must not take place when the relative humidity is in excess of 95%, or in fog. The temperature/humidity must be such that there is no risk of surface condensation occurring before or during application
- the primer, where used, must be cured
- the wind speed must be such that it does not interfere with the application or cause overspray. No attempt to spray must be made if the wind speed exceeds 6.7 m·s<sup>-1</sup> (15 mph), unless precautions such as the use of wind barriers are taken.

9.2.12 Only areas that can be sprayed to the full thickness before weather changes occur must be attempted.

9.2.13 The systems are applied using the build-up for a smooth texture substrate given in Table 6. The advice of the Certificate holder on coverage rates for intermediate, rough, porous and undulating substrates must be sought, but such advice is outside the scope of this Certificate. When using MARISEAL FABRIC, it is embedded in the first coat while the membrane is still wet with a 50 to 100 mm overlap of the reinforcement. Once the first coat is partially cured, the second coat is applied.

9.2.14 MARISEAL 400 can be applied by roller, brush or airless spray on top of the MARISEAL 250 system. MARISEAL 400 must be stirred well before use.

**Table 6 System coverage rates and finished thickness**

System	System 1	System 2	System 3	System 4
Base coat (kg·m <sup>-2</sup> )	1.2	2.0	1.2	0.9
Reinforcement	MARISEAL FABRIC (110 g·m <sup>-2</sup> )	MARISEAL FABRIC (110 g·m <sup>-2</sup> )	MARISEAL FABRIC (60 g·m <sup>-2</sup> )	—
Second coat (kg·m <sup>-2</sup> )	1.2	2.1	1.1	0.9
Topcoat (kg·m <sup>-2</sup> )	—	—	—	0.15 <sup>(1)</sup>
Finished thickness (mm)	1.6	2.9	1.2	1.0

(1) Application of Mariseal 400.

9.2.15 The second layer must be applied 12 to 18 hours after the base coat and no later than 48 hours after initial coat.

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

9.2.17 The NHBC requires that MARISEAL 250 Systems, once installed, are inspected in accordance with *NHBC Standards 2024*, Chapter 7.1, Clause 7.1.11, including undergoing an appropriate integrity test, where required. Any damage to the systems 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 on the basis of the Certificate holder’s information. To achieve the performance described in this Certificate, installation of the systems must be carried out 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 systems in use requires that they are suitably maintained. The guidance provided by the Certificate holder was assessed by the BBA and found to be appropriate and adequate.

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

9.4.2.1 The roof systems 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.

9.4.2.2 If minor damage occurs, it can be repaired by cleaning back to the unweathered material, and priming and recoating the damaged area with the membrane at the appropriate application rate.

## 10 Manufacture

10.1 The production processes for the products 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 systems components are delivered to site in packaging bearing the component name, batch number, and the BBA logo incorporating the number of this Certificate.

11.2 The packaging type and size for the systems components are given in Table 7.

Component	Packaging type	Packaging size
MARISEAL 250	Pails	1, 6, 15, 25 and 250 kg
	Drums	250 kg
MARISEAL FABRIC	Rolls	1 x 100 m
		0.2 x 100 m
MARISEAL 710	Pails	1, 5, 10 and 17 kg
MARISEAL AQUA PRIMER (Component A + Component B)	Pails	4 (3 + 1) and 20 kg (15 + 5)
MARISEAL 400	Pails	1, 5, 10 and 20 kg
MARISEAL TPO Primer	Pails	0.8 and 4 kg
MARISEAL Katalysator	Pails	0.18, 0.45, 0.75 and 1 kg

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

11.2.1 The components must be stored in a dry, shaded area and away from ignition sources at storage temperatures of between 5 and 30°C.

Supporting information in this Annex is relevant to the systems 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 systems 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 Sheet(s).

### CE marking

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

### 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 Swiss Approval International (Certificates 01 100 045987 and 01 104 087358 respectively).

### Additional information on installation

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

## 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*
- 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*
- NA to BS EN 1991-1-1 : 2002 UK National Annex to *Eurocode 1 : Actions on structures — General actions*
- BS EN 1991-1-3 : 2003 + A1 : 2015 *Eurocode 1 : Actions on structures — General actions*
- NA to BS EN 1991-1-3 : 2003 + A1 : 2015 UK National Annex to *Eurocode 1 : Actions on structures — General actions*
- BS EN 1991-1-4 : 2005 + A1 : 2015 *Eurocode 1 : Actions on structures — General actions*
- NA to BS EN 1991-1-4 : 2005 + A1 : 2015 UK National Annex to *Eurocode 1 : Actions on structures — General actions*
- BS EN 13501-5 : 2016 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs test*
- EN ISO 527-3 : 1995 *Plastics — Determination of tensile properties - Part 3: Test conditions for films and sheets*
- CEN/TS 1187 : 2012 *Test methods for external fire exposure to roofs*
- EN 13501-1 : 2018 *Fire classification of construction products and building elements. Classification using data from reaction to fire tests*
- EN ISO 9001 : 2015 *Quality management systems - Requirements*
- EN ISO 14001 : 2015 *Environmental management systems – Requirements*
- EAD 030350-00-0402: 2018 *Liquid applied roof waterproofing kits*
- EOTA Technical Report TR 003 : May 2004 *Determination of the watertightness*
- EOTA Technical Report TR 004 : May 2004 *Determination of the resistance to delamination*
- EOTA Technical Report TR 006 : May 2004 *Determination of resistance to dynamic indentation*
- EOTA Technical Report TR 007 : May 2004 *Determination of resistance to static indentation*
- EOTA Technical Report TR 008 : May 2004 *Determination of resistance to fatigue movement*
- EOTA Technical Report TR 011 : May 2004 *Exposure procedure for accelerated ageing by heat*
- EOTA Technical Report TR 012 : May 2004 *Exposure procedure for accelerated ageing by hot water*

## 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
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

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.

4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product or any other product
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product
- 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.

### British Board of Agrément

1<sup>st</sup> Floor, Building 3, Hatters Lane  
Croxley Park, Watford  
Herts WD18 8YG

©2024

tel: 01923 665300  
clientservices@bbacerts.co.uk  
[www.bbacerts.co.uk](http://www.bbacerts.co.uk)