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Agrément Certificate

18/5528

Product Sheet 2

TECHNONICOL TORCH-ON ROOF WATERPROOFING MEMBRANES

MIDA TORCH-ON MEMBRANES

This Agrément Certificate Product Sheet⁽¹⁾ relates to Mida Torch-on Membranes, polyester reinforced modified-bitumen membranes for use on flat or pitched roofs with limited access.

(1) Hereinafter referred to as 'Certificate'.

CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.



KEY FACTORS ASSESSED

Weathertightness — the products will resist the passage of moisture into the building (see section 6).

Resistance to wind uplift — when correctly specified, the products will resist the effects of any likely wind suction acting on the roof (see section 8).

Resistance to mechanical damage — the products will accept, without damage, the limited foot traffic and loads associated with installation and maintenance (see section 9).

Durability — under normal service conditions, the products will provide a durable roof waterproof covering with a service life in excess of 20 years (see section 11).



The BBA has awarded this Certificate to the company named above for the products described herein. These products 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 First issue: 9 May 2018

John Albon – Head of Approvals
Construction Products

Claire Curtis-Thomas
Chief Executive

The BBA is a UKAS accredited certification body – Number 113.

The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk

Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

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

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Regulations

In the opinion of the BBA, Mida Torch-on Membranes, 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 presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



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

Requirement:	B4(2)	External fire spread
Comment:		On a suitable substructures, the use of the products can enable a roof to be unrestricted under this Requirement. See section 7 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The products, including joints, can enable a roof to satisfy this Requirement. See section 6.1 of this Certificate.
Regulation:	7	Materials and workmanship
Comment:		The products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Durability, workmanship and fitness of materials
Comment:		The use of the products satisfies the requirements of this Regulation. See sections 10 and 11 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	2.8	Spread from neighbouring buildings
Comment:		The products, when applied to a suitable substructure, are classified as having low vulnerability and can enable a roof to be unrestricted under this Standard, with reference to clause 2.8.1 ⁽¹⁾⁽²⁾ . See section 7 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The products, including joints, can enable a roof to satisfy the requirements of this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.7 ⁽¹⁾⁽²⁾ . See section 6.1 of this Certificate.
Standard:	7.1(a)(b)	Statement of sustainability
Comment:		The products 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 applicable to conversions
Comment:		Comments in relation to the product 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(a)(i)	Fitness of materials and workmanship
Comment:	(iii)(b)(i)	The products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		The products, including joints, can enable a roof to satisfy the requirements of this Regulation. See section 6.1 of this Certificate.

Regulation:	36(b)	External fire spread
Comment:	On a suitable substructures, the use of the products can enable a roof to be unrestricted under the requirements of this Regulation. See section 7 of this 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.

See section: 1 *Description* (1.2) of this Certificate.

Additional Information

NHBC Standards 2018

In the opinion of the BBA, Mida Torch-On Membranes, 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 and balconies*.

CE marking

The Certificate holder has taken the responsibility of CE marking the products in accordance with harmonised European Standard EN 13707 : 2013. An asterisk (*) appearing in this Certificate indicates that data shown are given in the manufacturer's Declaration of Performance.

Technical Specification

1 Description

1.1 Mida Torch-on Membranes are polyester-reinforced (150 gm⁻²), styrene-butadiene-styrene (SBS) copolymer modified bitumen membranes with fine sand on the top side and a thermofusible polyethylene (PE) film on the underside.

1.2 The products are manufactured to the nominal characteristics given in Tables 1 and 2.

Table 1 Nominal characteristics

Characteristic (unit)	Mida Standard PV S4	Mida Standard PV S 4.5 kg
Thickness (mm)	4	3.5 ± 0.2
Width (m)	1	1
Length (m)	8/10	8/10
Mass per unit area (kg.m ⁻²)	5.2 ± 5%	4.5 ± 5%
Roll weight (kg)	42/52	37/46

Table 2 Nominal physical characteristics

Characteristic (unit)	Value
Tensile strength* (N per 50 mm)	
Longitudinal	600
transverse	500
Elongation at break* (%)	
Longitudinal	50
transverse	50
Tear strength* (N)	
Longitudinal	200
transverse	200
Watertightness* (200kPa)	Pass
Flow resistance* °C	≥85
Dimensional stability (%)	≤±0.8

2 Manufacture

2.1 The products are manufactured by saturating the reinforcement and coating with the modified bitumen. The finished products are surfaced with sand, talc or thermo-fusible PE film on both faces. The sheets are then cooled, trimmed and reeled.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out 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.

2.3 The management system of TechnoNicol-Vyborg Ltd has been assessed and registered as meeting the requirements of EN ISO 9001 : 2015 by ACERT Bureau (Certificate NG-08.00.05d).

3 Delivery and site handling

3.1 The products are delivered to site in rolls sealed with tape. The roll adhesive tape bears the product name and the roll label bears the BBA logo incorporating the number of this Certificate.

3.2 Individual rolls must be stored in an upright position on a clean, level surface and kept dry. They must be protected from direct sunlight and from heat sources.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Mida Torch-on Membranes.

Design Considerations

4 Use

4.1 Mida Torch-on Membranes are satisfactory for use as part of a roof waterproofing system on flat or pitched roofs with limited access in fully or partially bonded specifications.

4.2 Limited access roofs are defined for the purpose of this Certificate as those subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters etc. Where traffic in excess of this is envisaged, special precautions, such as additional protection to the products, must be taken.

4.3 Flat roofs are defined for the purpose of this Certificate as those having a minimum finished fall of 1:80. For design purposes, twice the minimum finished fall should be assumed, unless a detailed analysis of the roof is available, including overall and local deflection, direction of falls, etc. Pitched roofs are defined as those having falls in excess of 1:6 or 10°.

4.4 Decks to which the products are to be applied must comply with the relevant requirements of either BS 6229 : 2003 or BS 8217 : 2005 and, where appropriate, *NHBC Standards* 2018, Chapter 7.1.

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

- as described in the relevant clauses of BS 8217 : 2005, or
- the subject of a current BBA Certificate and used in accordance with, and within the scope of, that Certificate.

5 Practicability of installation

The products are designed to be installed by competent roofing contractors experienced with these types of products.

6 Weathertightness



6.1 The products, including joints, when completely sealed and consolidated, will adequately resist the passage of moisture into the building and enable a roof to comply with the requirements of the national Building Regulations (see section 15).

6.2 The products are impervious to water and will achieve a weathertight roof capable of accepting minor structural movements.

7 Properties in relation to fire



The properties in relation to fire will depend on the cap sheet used in conjunction with the products.

8 Resistance to wind uplift

The adhesion of the bonded products is sufficient to resist the effects of wind suction, elevated temperature or other minor structural movements likely to occur in service.

9 Resistance to mechanical damage

The products can accept, without damage, the limited foot traffic and light concentrated loads associated with installation and maintenance. Reasonable care should be taken to avoid puncture by sharp objects or concentrated loads.

10 Maintenance



The products must be the subject of annual inspections and maintenance to ensure continued performance.

11 Durability



Under normal conditions, the products, when used in conjunction with suitable cap sheets, will have a service life in excess of 20 years.

Installation

12 General

12.1 Installation of Mida Torch-on Membranes is carried out using traditional methods for laying reinforced bitumen membranes in accordance with the Certificate holder's instructions and the relevant clauses of BS 8000-0 : 2014, BS 8000-4 : 1989 and BS 8217 : 2005.

12.2 Substrates to which the products are to be applied must be sound, dry, clean and free from sharp projections such as nail heads and concrete nibs. When used over a rough substrate, a suitable protection layer must be laid first.

12.3 Vapour control layers (VCLs) and cap sheets, as specified, must be installed in accordance with the manufacturer's instructions.

12.4 VCLs must be fully bonded to the roof substrate.

12.5 Installation should not be carried out during inclement weather (eg rain, fog or snow) nor when the temperature is below 5°C.

12.6 At falls in excess of 1:6 the normal precautions against slippage and the provision for mechanical fixings as required by BS 8217 : 2005 should be observed.

13 Procedure

13.1 Bonding is achieved by melting the lower surface by torching and pressing the membrane down. Care must be taken not to overheat the coating.

13.2 The membrane must be heated carefully, ensuring that the thermofusible film is completely removed as work proceeds, and pressed down onto the prepared substrate, ensuring that a continuous 5 mm bead of bitumen is extruded from all edges and fully bonded.

13.3 Side laps should be a minimum of 100 mm and end laps a minimum of 150 mm.

13.4 Where appropriate, membrane edges, including end laps, must be offset at least 300 mm from the VCL edges to avoid a build-up of overlaps.

14 Repair

Any damage can be repaired by cleaning the affected area and applying a patch as described in the Certificate holder's instructions.

15 Tests

15.1 An assessment was made of data in relation to:

- dimensions
- mass per unit area
- watertightness
- low temperature flexibility
- flow resistance
- dimensional stability
- static loading
- resistance to impact
- nail tear resistance
- water vapour permeability
- heat ageing for 24 weeks at 70°C followed by low temperature flexibility and flow resistance.

15.2 An assessment was made of data from tests on the coating mass in relation to:

- fines content
- determination of softening point
- heat aged properties of coating mass, 168 days at 70°C followed by softening point.

15.3 An assessment was made of data from tests on the reinforcement in relation to mass per unit area.

16 Investigations

The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

Bibliography

BS 6229 : 2003 *Flat roofs with continuously supported 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 8217 : 2005 *Reinforced bitumen sheets for roofing – Code of practice*

BS 8747 : 2007 *Reinforced bitumen sheets (RBMs) for roofing – Guide to selection and specification*

BS EN 1991-1-4 : 2005 *Eurocode 1 : Actions on structures – General actions – Wind actions*

NA to BS EN 1991-1-4 : 2005 *UK National Annex to Eurocode 1 : Actions on structures – General actions – Wind actions*

EN 13707 : 2013 *Flexible sheets for waterproofing – Reinforced bitumen sheets for roof waterproofing – Definitions and characteristics*

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

17 Conditions

17.1 This Certificate:

- relates only to the product/system 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 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.

17.2 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.

17.3 This Certificate will remain valid for an unlimited period provided that the product/system 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.

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

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

17.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system 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.