

**Fatra UK Ltd**

Unit 12  
The Timber Yard  
East Moors Road  
Ocean Park  
Cardiff CF24 5EE  
Tel: 029 2048 7954 Fax: 029 2048 9226  
e-mail: sales@fatra.co.uk  
website: www.fatra.co.uk

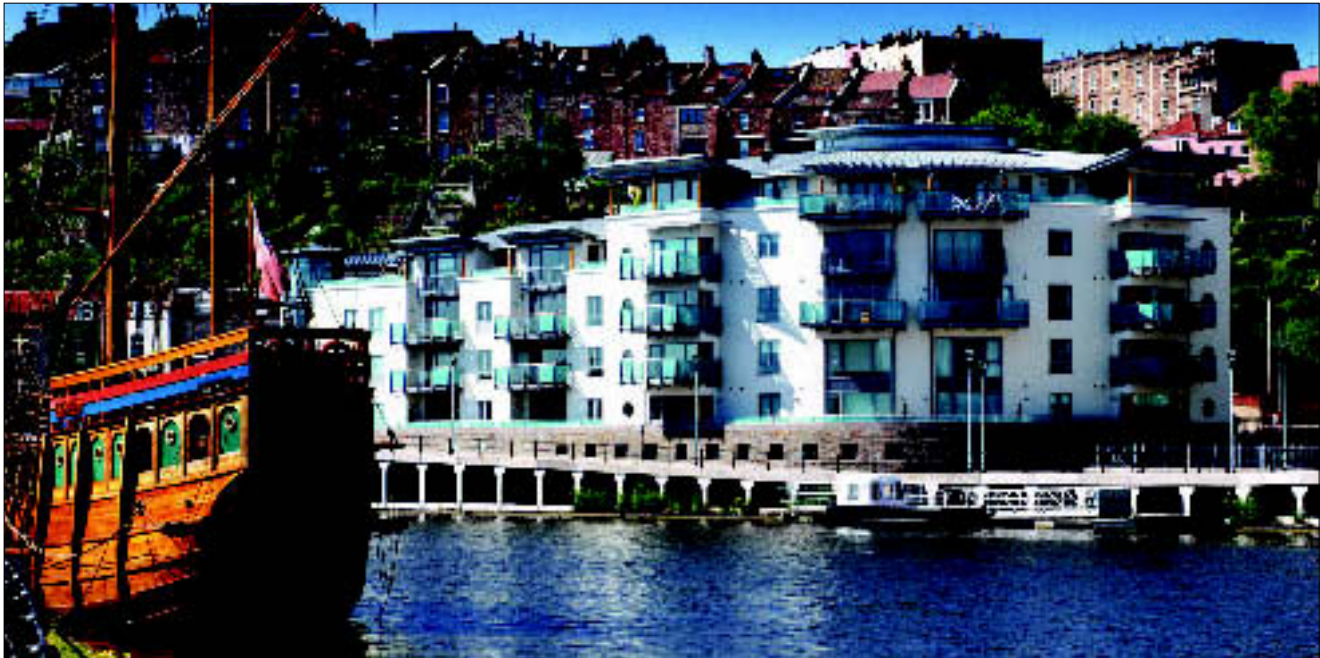
**Agrément  
Certificate  
No 04/4079**

Designated by Government  
to issue  
European Technical  
Approvals

## FATRAFOL 807 ROOF COVERING SYSTEM

Revêtement d'étanchéité  
Dachabdichtungen

## Product




• THIS CERTIFICATE RELATES TO THE FATRAFOL 807 ROOF COVERING SYSTEM, A PVC ROOF WATERPROOFING MEMBRANE WITH A NON-WOVEN FABRIC FLEECE BACKING.

• The membrane is for use as a fully-bonded waterproof covering on pitched or flat roofs with limited access.

• The membrane is manufactured in the Czech Republic by Aliachem as/Fatra oz.

## Regulations

### 1 The Building Regulations 2000 (as amended) (England and Wales)

 The Secretary of State has agreed with the British Board of Agrément the aspects of performance to be used by the BBA in assessing the compliance of roof waterproofing membranes with the Building Regulations. In the opinion of the BBA, the Fatrafol 807 Roof Covering System, if used in accordance with the provisions of the Certificate, will meet or contribute to meeting the relevant requirements.

Requirement: **B4(2)**

External fire spread

Comment:

Data obtained from tests to BS 476-3 : 1958 indicate that on suitable substructures the use of the system will enable a roof to be unrestricted under the requirements of these Regulations. See sections 11.1 and 11.2 of this Certificate. Resistance to weather and ground moisture

Requirement: **C4**

Comment:

Tests for water resistance on the membrane, including joints, indicate that the system meets this Requirement. See section 8.1 of this Certificate.

Requirement: **Regulation 7**

Materials and workmanship

Comment:

The system is acceptable. See section 13 of this Certificate.

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## 2 The Building Standards (Scotland) Regulations 1990 (as amended)



In the opinion of the BBA, the Fatrafal 807 Roof Covering System, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Regulations and related Technical Standards as listed below.

Regulation:	10	Fitness of materials and workmanship
Standard:	B2.1	Selection and use of materials, fittings, and components, and workmanship
Comment:		The system complies with this Standard. See the <i>Installation</i> part of this Certificate.
Standard:	B2.2	Selection and use of materials, fittings, and components, and workmanship
Comment:		The system complies with this Standard. See section 13 of this Certificate.
Regulation:	12	Structural fire precautions
Standard:	D9.1	Fire spread from an adjoining building
Comment:		Data obtained from tests to BS 476-3 : 1958 indicate that on suitable substructures use of the system will enable a roof to be unrestricted under this Standard. See sections 11.1 and 11.2 of this Certificate.
Regulation:	17	Resistance to moisture
Standard:	G3.1	Resistance to precipitation — Resistance to precipitation
Comment:		Tests for water resistance on the membrane, including joints, indicate that the use of the system can enable a roof to satisfy the requirements of this Standard. See section 8.1 of this Certificate.

## 3 The Building Regulations (Northern Ireland) 2000



In the opinion of the BBA, the Fatrafal 807 Roof Covering System, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Building Regulations as listed below.

Regulation:	B2	Fitness of materials and workmanship
Comment:		The system is acceptable. See section 13 of this Certificate.
Regulation:	C4	Resistance to ground moisture and weather
Comment:		Tests for water resistance of the membrane, including joints, indicate that the use of the system can enable a roof to satisfy the requirements of this Regulation. See section 8.1 of this Certificate.
Regulation:	E5	External fire spread
Comment:		Data obtained from tests to BS 476-3 : 1958 indicate that on suitable substructures the use of the system will enable a roof to be unrestricted under the requirements of this Regulation. See sections 11.1 and 11.2 of this Certificate.

## 4 Construction (Design and Management) Regulations 1994 (as amended) Construction (Design and Management) Regulations (Northern Ireland) 1995 (as amended)

Information in this Certificate may assist the client, planning supervisor, designer and contractors to address their obligations under these Regulations.

See sections: *5 Description (5.3) and 6 Delivery and site handling (6.3).*

## Technical Specification

### 5 Description

5.1 The Fatrafal 807 Roof Covering System consists of a PVC roofing sheet with a non-woven polyester-fleece backing.

5.2 The PVC membrane comprises upper, middle and lower layers manufactured by a calender-mould process. The bottom surface has a 1.5 mm non-woven, polyester-fleece layer.

5.3 The membrane is manufactured in the nominal parameters of:

thickness including fleece (mm)	3.0
roll length (m)	15.4
roll width (m)	1.3
weight per unit area (kgm <sup>-2</sup> )	2.3
roll weight (kg)	48
colours	grey, red, orange, green and blue.

5.4 Other materials used with the system include:

- Composite Gutter System — two, gutter shaped, galvanized steel skins with insulation in between and finished inside with Fatrafal 807 to give a continuous roof line
- Fatrafal 859 membrane adhesive — moisture-curing polyurethane adhesive for use with Fatrafal 807
- Fatrafal F899 primer — for use on porous substrates
- Fatra PVC liquid sealant — used to seal laps and seams
- Shaped PVC reinforcements — for internal and external corners
- PVC-coated, galvanized steel profiles — for parapets, edge details and upstands
- Fatrafal 812 membrane — protection layer.

5.5 Quality control checks carried out during production and on the finished product include checks on:

- appearance
- thickness
- roll width
- breaking load
- tensile strength and elongations
- dimensional stability
- tear resistance.

### 6 Delivery and site handling

6.1 The membrane is delivered to site in rolls wrapped in paper bearing the Certificate holder's name, batch number, product name, surface colour, and the BBA identification mark incorporating the number of this Certificate.

6.2 Rolls should be stored horizontally on a clean, dry, level surface and kept under cover until required.

6.3 Materials that are classified under the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP3) are given in Table 1 along with flashpoints where relevant. These products bear the appropriate hazard warning.

Table 1 Flashpoint and hazard classification

Material	Flashpoint (°C)	Classification
Fatrafal 859 membrane adhesive	-61	Highly flammable, Irritant
Fatrafal F899 primer	-17	Highly flammable, Irritant
Fatra PVC liquid sealant	-24	Highly flammable

## Design Data

### 7 General

7.1 The Fatrafal 807 Roof Covering System is satisfactory for use as a fully-bonded roof waterproofing layer on pitched or flat roofs with limited access.

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

7.3 Flat roofs are defined for the purpose of this Certificate as those roofs having a minimum finished fall of 1:80. Pitched roofs are defined as those having falls greater than 1:6. 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.

7.4 Decks to which this system is to be applied must comply with the relevant requirements of BS 6229 : 2003, BS 8217 : 1994 and, where appropriate, NHBC Standards, Chapter 7.1 or the Zurich Building Guarantees Technical Standards, Section 5, clause 5.9.3.19.

7.5 Insulation systems or materials used in conjunction with the system must be either:

- as described in the relevant clauses of BS 8217 : 1994, or
- the subject of a current BBA Certificate and be used in accordance with, and within the limitations of, that Certificate.

## 8 Weathertightness



8.1 Data confirm that the membrane, and joints in the membrane, when completely sealed and consolidated, will adequately resist the passage of moisture to the inside of the building and so meet the requirements of:

### *England and Wales*

Approved Document C, Requirement C4, Section 5.1

### *Scotland*

Regulation 17, Standard G3.1

### *Northern Ireland*

Regulation C4.

8.2 The system is impervious to water and when used as described will give a weathertight roof covering capable of accepting minor structural movement without damage.

## 9 Resistance to wind uplift

Data examined indicate that the adhesion of the bonded systems to the decking is sufficient to resist the effects of wind suction likely to occur in practice.

## 10 Resistance to foot traffic

Data indicate that the system can accept, without damage, the limited foot traffic and light concentrated loads associated with installation and maintenance operations. Reasonable care should be taken, however, to avoid puncture by sharp objects or concentrated loads. In any situation where regular traffic is envisaged, eg maintenance of lift equipment, a walkway must be provided using concrete slabs supported on suitable bearing pads, or a protective layer such as Fatrafol 812 membrane. Where a mineral fibre board has been used, a protective sheet should be laid between the roof covering and the protective layer to spread the loading.

## 11 Properties in relation to fire



11.1 When tested in accordance with BS 476-3 : 1958, a system comprising one layer of loose-laid polyethylene vapour barrier on a galvanized profiled deck, with a 125 mm mineral fibre board, mechanically-fixed through the vapour barrier using Buildex HRG screws, with the Fatrafol 807 membrane fully-bonded using Fatrafol membrane adhesive, achieved an EXT.F.AB rating.

11.2 The designation of other specifications, for example, when used on combustible substrates, should be confirmed by:

### *England and Wales*

Test or assessment in accordance with Approved Document B, Appendix A, Clause A1

### *Scotland*

To conform to Standard D9.1

### *Northern Ireland*

Test or assessment by a UKAS accredited laboratory, or an independent consultant with appropriate experience.

## 12 Maintenance

In the event of damage, repair should be carried out by applying a patch of the membrane extending at least 50 mm beyond the defect. The joint should be cleaned back to unweathered material and solvent or hot-air welded and finally sealed using Fatra PVC liquid sealant.

## 13 Durability



The product has been used in the Czech Republic since 1985. Accelerated weathering tests and performance in service, confirm that satisfactory retention of physical properties is achieved. All available evidence indicates that the Fatrafol 807 waterproofing membrane should have a life in excess of 25 years.

## Installation

## 14 General

14.1 Installation of Fatrafol 807 must be in strict accordance with the manufacturer's fixing instructions, and the relevant recommendation of BS 8000-4 : 1989.

14.2 The membrane may be applied over tissue-faced insulation materials and fixed to the substructure in such a way as not to impair the performance of the waterproofing membrane. Foamglas or polystyrene-based insulation products may also be used.

14.3 Deck surfaces should be clean, dry and free from sharp projections such as nail heads and concrete nibs.

14.4 The membrane may be laid in conditions normal to roofing work. To prevent the entrapment of moisture under the membrane it must not be laid in wet or damp weather conditions, or at temperatures below 5°C.

## 15 Procedure

15.1 Where required, Fatrafol 899 primer is applied to the substrate using a roller and allowed to dry to provide a primer coat.

15.2 Fatrafol 859 adhesive is then applied to the substrate by roller or brush.

15.3 The membrane should be laid into the wet adhesive within 5 to 15 minutes depending on the ambient conditions, and rolled within 10 to 20 minutes, misting with a water vapour spray to accelerate setting.

## 16 Jointing

16.1 To ensure a watertight bond, lap joints in the membrane should be a minimum of 50 mm wide at sheet ends and details. Edge overlaps with adjacent sheets should be a minimum of 50 mm, welded over the last 50 mm as described in sections 16.2 and 16.3 of this Certificate.

16.2 When hot-air welding a lap joint, a minimum of 50 mm of the lap width must be welded. During this process, a continuous bead of molten material must exude as a visible indication of a satisfactory weld.

16.3 Fatrafol PVC liquid sealant should be applied to finished laps.

16.4 After completion of the jointing process the lap should be tested for complete weathertightness.

## 17 Details

The manufacturer supplies a range of prefabricated external or internal PVC corners for the treatment of details, flashing.

## Technical Investigations

The following is a summary of the technical investigations carried out on the Fatrafol 807 Roof Covering System.

## 18 Tests

A sample of Fatrafol 807 was obtained from the manufacturer for the purpose of testing. Tests performed by the BBA, which give typical results for the material are summarised in Tables 2 and 3.

## 19 Investigations

19.1 Existing data on the fire performance of the membrane were examined.

19.2 Assessment of the durability of the membrane was based on the data from Certificate No 02/3921, Fatrafol 810, which is a material of the same composition.

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

Table 2 Physical properties — directional

Test (units)	Method <sup>(1)</sup>	Mean result	
		Long	Trans
Dimensional stability (%)	BS EN 1107-2	-0.05	-0.05
Tensile strength (N per 50 mm) unaged	BS EN 12311-2	1001	1096
Elongation (%) unaged	BS EN 12311-2	125	76
Nail tear strength (N) <sup>(2)</sup> 23°C	MOAT 55	352	431
Cold blend (°C) <sup>(2)</sup> unaged	BS EN 495-5	-30	-30
heat aged <sup>(3)</sup>		-30	-30
UV aged <sup>(4)</sup>		-30	-30

(1) The test documents are detailed in the *Bibliography*. Numbers in the table refer to sections/parts of the document.

(2) Material tested by the BBA is Fatrafol 810 subject of BBA Certificate No 02/3921.

(3) Heat aged 24 weeks at 80°C.

(4) UV aged UVB 4.5 GJm<sup>-2</sup> condensation 50°C/UV light.

Table 3 Service performance

Test (units)	Method <sup>(1)</sup>	Mean result
Cyclic movement unaged — 1000 cycles	EOTA TR 008	pass
heat aged <sup>(2)</sup> — 200 cycles		pass
Peel strength (N per 50 mm) unaged	MOAT 27 : 5.1.3	102
heat aged <sup>(2)</sup>		210
water soaked <sup>(3)</sup>		40
Water vapour permeability <sup>(4)</sup> (gm <sup>-2</sup> day <sup>-1</sup> )	BS 3177 25°C/75% RH	1.20
Water vapour resistance <sup>(4)</sup> (MNsg <sup>-1</sup> )	BS 3177 25°C/75% RH	171
Static indentation <sup>(4)</sup> rigid	MOAT 27 : 5.1.9	L <sub>4</sub>
compressive		L <sub>4</sub>
Dynamic indentation <sup>(4)</sup> perlite	MOAT 27 : 5.1.10	I <sub>3</sub>
EPS		I <sub>4</sub>

(1) The test documents are detailed in the *Bibliography*. Numbers in the table refer to sections/parts of the documents.

(2) Heat aged 28 days at 80°C.

(3) Water soaked 7 days at 60°C.

(4) Material tested by BBA is Fatrafol 810 subject of BBA Certificate No 02/3921.

## Bibliography

BS 476-3 : 1958 *Fire tests on building materials and structures — External fire exposure roof test*

BS 3177 : 1959 *Method for determining the permeability to water vapour of flexible sheet materials used for packaging*

BS 6229 : 2003 *Code of practice for flat roofs with continuously supported coverings*

BS 8000-4 : 1989 *Workmanship on building sites — Code of practice for waterproofing*

BS 8217 : 1994 *Code of practice for built-up felt roofing*

BS EN 495-5 : 2001 *Flexible sheets for waterproofing — Determination of foldability at low temperature — Plastic and rubbers sheets for roof waterproofing*

BS EN 1107-2 : 2001 *Flexible sheets for waterproofing — Determination of dimensional stability — Plastic and rubber sheets for roof waterproofing*

BS EN 12311-2 : 2000 *Flexible sheets for waterproofing — Determination of tensile properties — Plastic and rubber sheets for roof waterproofing*

MOAT No 27 : 1983 *General Directive for the Assessment of Roof Waterproofing Systems*

MOAT No 55 : 1991 *UEAtc Supplementary guide for the assessment of mechanically fastened roof waterproofing*

EOTA Technical Report TR 008 (May 1999), *Liquid Applied Roof Waterproofing Kits (LARWK) — Determination of the resistance to fatigue movement*



## Conditions of Certification

### 20 Conditions

20.1 This Certificate:

- (a) relates only to the product that is described, installed, used and maintained as set out in this Certificate;
- (b) is granted only to the company, firm or person identified on the front cover — no other company, firm or person may hold or claim any entitlement to this Certificate;
- (c) is valid only within the UK;
- (d) has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective;
- (e) is copyright of the BBA;
- (f) is subject to English law.

20.2 References in this Certificate to any Act of Parliament, Regulation made thereunder, Directive or Regulation of the European Union, Statutory Instrument, Code of Practice, British Standard, manufacturers' instructions or similar publication, are references to such publication in the form in which it was current at the date of this Certificate.

20.3 This Certificate will remain valid for an unlimited period provided that the product and the manufacture and/or fabrication including all related and relevant processes thereof:

- (a) are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA;

(b) continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine; and

(c) are reviewed by the BBA as and when it considers appropriate.

20.4 In granting this Certificate, the BBA is not responsible for:

- (a) the presence or absence of any patent or similar rights subsisting in the product or any other product;
- (b) the right of the Certificate holder to market, supply, install or maintain the product; and
- (c) the nature or standard of individual installations of the product or any maintenance thereto, including methods and workmanship.

20.5 Any recommendations relating to the use or installation of this product which are contained or referred to in this Certificate are the minimum standards required to be met when the product is used. They do not purport in any way to restate the requirements of the Health & Safety at Work etc Act 1974, or of any other statutory, common law or other duty which may exist at the date of this Certificate or in the future; nor is conformity with such recommendations to be taken as satisfying the requirements of the 1974 Act or of any present or future statutory, common law or other duty of care. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the installation and use of this product.



In the opinion of the British Board of Agrément, the Fatrafol 807 Roof Covering System is fit for its intended use provided it is installed, used and maintained as set out in this Certificate. Certificate No 04/4079 is accordingly awarded to Fatra UK Ltd.

On behalf of the British Board of Agrément

Date of issue: 10th June 2004

A handwritten signature in black ink, appearing to read 'P. C. Newson', is written over a light grey background.

Chief Executive

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**British Board of Agrément**

P O Box No 195, Bucknalls Lane  
Garston, Watford, Herts WD25 9BA  
Fax: 01923 665301

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e-mail: [mail@bba.star.co.uk](mailto:mail@bba.star.co.uk)  
website: [www.bbacerts.co.uk](http://www.bbacerts.co.uk)



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