



BRANZ Appraised
Appraisal No. 1198 [2021]

**FATRAFOL 807/V
810, 810/V - PVC-P
WATERPROOFING
SHEET MEMBRANES**

Appraisal No. 1198 [2021]



BRANZ Appraisals

Technical Assessments of products for building and construction.



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Product

- 1.1 Fatratfol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membranes are roof waterproofing membranes with polyester reinforcement backing.

Scope

- 2.1 Fatratfol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membranes have been appraised as roof waterproofing membranes on buildings within the following scope:
 - with building structures designed and constructed to meet the requirements of the Building Code of Australia [BCA]; and,
 - with roof supporting structures of timber framing with substrates of plywood; or,
 - with substrates of suspended concrete slabs; and,
 - subjected to maximum wind pressures; and,
 - with the weathertightness design of all junctions being the subject of specific design by the designer.

[Note: The design of these junctions has not been appraised by BRANZ and is outside the scope of this Appraisal. Refer to Fatrat Australia Pty Ltd for further information.]

- 2.2 Roofs waterproofed with Fatratfol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membranes must be designed and constructed in accordance with the following limitations:
 - nominally flat, curved or pitched roofs constructed to drain water to gutters and drainage outlets complying with the BCA; and,
 - constructed to suitable falls.
- 2.3 The design and construction of the substrate and movement and control joints are specific to each building, and therefore are the responsibility of the building designer and building contractor and are outside the scope of this Appraisal.
- 2.2 The membranes must be installed by Fatrat Australia Pty Ltd approved applicators.



Building Regulations

Building Code of Australia [BCA]

- 3.1 In the opinion of BRANZ, Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membranes, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the NCC:

NCC 2019 Building Code of Australia - Volume One [NCC Volume One]

Part F1 Damp and weatherproofing: Performance Requirement FP 1.4. Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membranes meet this requirement. See Paragraphs 13.1-13.8.

NCC 2019 Building Code of Australia - Volume Two [NCC Volume Two]

Part 2.2 Damp and weatherproofing: Performance P2.2.2 Weatherproofing. Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membranes meet this requirement. See Paragraphs 13.1-13.8.

Technical Specification

- 4.1 Materials supplied by Fatra Australia Pty Ltd are as follows;
- **Fatrafol** are PVC-P based waterproof roofing membrane polyester reinforcement. It is resistant to ultraviolet [UV] radiation and can be exposed to the direct weathering influences.
 - **Fatrafol 807/V** - 1.6 mm thick comes in rolls 1.6 m wide x 15 m or 19 m long, 1.9 mm thick comes in rolls 1.65 m wide x 12 m or 16 m long and 2.4 mm thick comes in rolls 2.05 wide x 13 m long.
 - **Fatrafol 810** - 1.2 mm thick comes in rolls 1.2 m wide x 25 m long and 1.5 mm thick comes in rolls 1.3 m wide x 20 m long.
 - **Fatrafol 810/V** - 1.2 mm thick comes in rolls 2 m wide x 25 m long and 1.5 mm thick comes in rolls 2.05 x 20 m long.
 - Fatrafol 804 is a PVP-P based unreinforced waterproof roofing membrane used for detailing. Comes in rolls 1.5 mm thick, 1,300 mm wide x 20 m long; 1.8 mm thick, 1,300 mm wide and 15 m long; and 2 mm thick, 1,200 mm wide by 15 m long or 1,200 mm wide by 35 m long.

Variable dimensions can be manufactured on request with regards to length and a maximum of 2.05 m width.

Technical Literature

- 5.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for the Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membrane. The Technical Literature must be read in conjunction with this Appraisal. All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Appraisal must be followed.

Design Information

General

- 6.1 Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membrane are for use on roofs, gutters and parapets where an impervious waterproof membrane is required to prevent damage to building elements and adjoining areas. The products can be used on new or existing buildings. Fatra Australia Pty Ltd should be consulted as to the suitability of any existing substrates prior to using Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membrane.

Structure

- 7.1 Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membranes fully bonded systems are suitable for use in areas subject to maximum wind pressures of 6 kPa ultimate limit state.



Substrates

Plywood

- 8.1 Structural plywood must be a minimum of 17 mm thick, complying with AS/NZS 2269. The structural plywood must be supported with joists at a maximum spacing as detailed in AS 1684.3, Table 7.3, and fixings shall be as per "Technical Note on the Use of EWPA Branded Structural Plywood As Exterior Decking". [Note: LOSP treated plywood must not be used.]

Concrete

- 8.2 Concrete substrates must be designed in accordance with the BCA.

Steel

- 8.3 The steel substrate must be G550 aluminium-zinc AZ150 to AS 1397.

Existing Construction

- 8.4 A thorough inspection of the substrate must be made to ensure it is in fit condition and does not contain any materials that will adversely affect the performance of the membrane.
- 8.5 Repairs must be undertaken, where applicable, to ensure the substrate is sound, the joints are sealed, and the flashings are sound. Plywood substrates must be checked for screw fixings, and if necessary, re-fixed as for new plywood.

Durability

Serviceable Life

- 9.1 Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membrane will have a durability of at least 15 years and an expected serviceable life of over 20 years, provided they are designed, used, installed and maintained in accordance with this Appraisal and the Technical Literature.

Chemical Resistance

- 9.2 Industrial air pollutants and windborne salt deposits should not significantly affect the durability of the membrane. However, the long term properties of the material may be affected by contact with petroleum-based products such as oils, greases and solvents.

Maintenance

- 10.1 The membrane roof system must be regularly [at least annually] checked for damage, rubbish or debris. Damage, such as small punctures and tears, must be repaired as recommended by Fatra Australia Pty Ltd.
- 10.2 Special care must be taken when inspecting the membrane roof systems to ensure the continuing prevention of moisture ingress, and repairs must be undertaken where required.
- 10.3 Drainage outlets must be maintained to operate effectively.

Heating Appliances, Fireplaces, Chimneys and Flues

- 11.1 Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membrane must be protected or separated from fireplaces, heating appliances, chimneys and flues in accordance with the requirements of NCC Volume One, Part GP 2.1 and Part G2, and NCC Volume Two, Part P2.7.3 and Part 3.10.3.

Fire

- 12.1 The Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membranes are combustible materials. Designers must take this into account when undertaking the fire design for the building.



External Moisture

- 13.1 Roofs must be designed and constructed to meet code compliance with NCC Volume One, Performance FP1.4 and NCC Volume Two, Performance P2.2.2. They must also take account of snowfalls in snow prone areas.
- 13.2 When installed in accordance with this Appraisal and the manufacturer's Technical Literature, Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membranes will prevent the penetration of water and will therefore meet code compliance with NCC Volume One, Performance FP1.4 and NCC Volume Two, Performance P2.2.2. The membranes are impervious to water and will give weathertight roofs capable of accepting minor structural movements.
- 13.3 The minimum fall is 1 in 30 for plywood roofs, 1 in 60 for concrete roofs, and 1 in 100 for gutters. The minimum falls for decks is 1 in 40. All falls must slope to an outlet. Inadequate falls will allow moisture to collect and increase the risk of deterioration of the membrane. *[Note: Where possible BRANZ recommend a fall of 1 in 60 for gutters].*
- 13.4 Roof falls must be built into the substrate.
- 13.5 Allowance for deflection and settlement of the substrate must be made in the design of the roofs .
- 13.6 Drainage flanges must be used for any outlet and must be fitted with a grate or cage to reduce potential sources of blockages. An overflow must be provided where the roof does not drain to an external gutter.
- 13.7 Penetrations and upstands of the membranes must be raised above the level of any possible flooding caused by the blockage of roof drainage.
- 13.8 The design of details not covered by the Technical Literature is subject to specific weathertightness design, and is outside the scope of this Appraisal.

Installation Information

Installation Skill Level Requirement

- 14.1 Installation of the membranes must be completed by Fatra Australia Pty Ltd approved applicators.
- 14.2 Installation of substrates must be completed by tradespersons with an understanding of roof construction, in accordance with instructions given within the Fatra Australia Pty Ltd Technical Literature and this Appraisal.

Preparation of Substrates

- 15.1 Substrates must be dry, clean and stable before installation commences. Surfaces must be smooth and free from nibs, sharp edges, dust, dirt or other materials such as oil, grease or concrete formwork release agents. All surface defects must be filled to achieve an even and uniform surface.
- 15.2 The relative humidity of concrete substrates must be 75% or less before membrane application. The concrete can be checked for dryness by using a hygrometer, as set out in BRANZ Bulletin No. 585.
- 15.3 The moisture content of the plywood and timber substructure must be a maximum of 20%, and the plywood sheets must be dry at time of membrane application. This will generally require plywood sheets to be covered until just before the membrane is laid, to prevent rain wetting.

Membrane Installation

- 16.1 The membranes must be installed in accordance with the Fatra Australia Pty Ltd Technical Literature.



Inspections

- 17.1 Critical areas of inspection for waterproofing systems are:
- Construction of substrates, including crack control and installation of bond breakers and movement control joints.
 - Moisture content of the substrate prior to the application of the membrane.
 - Acceptance of the substrate by the membrane installer prior to application of the membrane.
 - Installation of the membrane to the manufacturer's instructions.

Basis of Appraisal

The following is a summary of the technical investigations carried out:

Tests

- 18.1 The following is a summary of the testing and test reports on Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membranes:
- Physical properties included tensile strength, elongation, tear strength, dimensional stability.
 - Service performance testing included low temperature flexibility, heat resistance, static and dynamic indentation, fatigue cycling and peel resistance.
 - British Board of Agrément No. 04/4079 and 02/3921.

The above test methods and results have been reviewed by BRANZ and found to be satisfactory.

Other Investigations

- 19.1 A durability opinion has been provided by BRANZ technical experts.
- 19.2 Installation of the membranes has been assessed by BRANZ for practicability of installation and found to be satisfactory.
- 19.3 The Technical Literature has been examined by BRANZ and found to be satisfactory.

Quality

- 20.1 The manufacture of the membranes has not been examined by BRANZ, but details regarding the quality and composition of the materials used were obtained by BRANZ and found to be satisfactory. The manufacturer of Fatrafol 807/V, 810 and 810/V Waterproofing Sheet Membranes have been assessed and registered as meeting the requirements of ISO 9001.
- 20.2 The quality of the supply of products to the Australian market is the responsibility of Fatra Australia Pty Ltd.
- 20.3 Quality on-site is the responsibility of the Fatra Australia Pty Ltd approved applicators.
- 20.4 Designers are responsible for the building design, and building contractors are responsible for the quality of construction of substrate systems in accordance with the instructions of Fatra Australia Pty Ltd and this Appraisal.
- 20.5 Building owners are responsible for the maintenance of the membrane systems in accordance with the instructions of Fatra Australia Pty Ltd and this Appraisal.

Sources of Information

- AS 1684.3:2010 Residential timber-framed construction - Cylonic area.
- AS/NZS 1170:2002 Structural design actions.
- AS/NZS 2269:2012 Plywood - structural.
- BRANZ Bulletin No. 585 Measuring moisture in timber and concrete, June 2015.
- BRANZ Good Practice Guide: Membrane roofing [second edition], 1 October 2015.
- National Construction Code Series Building Code of Australia 2019 - Australian Building Codes Board.
- Technical note on the use of EWPA branded structural plywood as exterior decking - PAA Engineered Wood Products Association of Australasia.



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22 October 2021

FATRAFOL 807/V 810, 810/V -
PVC-P WATERPROOFING SHEET
MEMBRANES



In the opinion of BRANZ, **Fatrafol 807/V, 810 and 810/V - PVC-P Waterproofing Sheet Membranes** are fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided they are used, designed, installed and maintained as set out in this Appraisal.

The Appraisal is issued only to **Fatra Australia Pty Ltd**, and is valid until further notice, subject to the Conditions of Appraisal.

Conditions of Appraisal

1. This Appraisal:
 - a) relates only to the product as described herein;
 - b) must be read, considered and used in full together with the Technical Literature;
 - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
 - d) is copyright of BRANZ.
2. **Fatra Australia Pty Ltd**:
 - a) continues to have the product reviewed by BRANZ;
 - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
 - c) abides by the BRANZ Appraisals Services Terms and Conditions;
 - d) warrants that the product and the manufacturing process for the product are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ pursuant to BRANZ's Appraisal of the product.
3. BRANZ makes no representation or warranty as to:
 - a) the nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
 - b) the presence or absence of any patent or similar rights subsisting in the product or any other product;
 - c) any guarantee or warranty offered by **Fatra Australia Pty Ltd**.
4. Any reference in this Appraisal to any other publication shall be read as a reference to the version of the publication specified in this Appraisal.
5. BRANZ provides no certification, guarantee, indemnity or warranty, to **Fatra Australia Pty Ltd** or any third party.

For BRANZ

Chelydra Percy

Chief Executive

Date of Issue:

22 October 2021