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SUMMARY OF FEATURES

- Breather type building paper manufactured from bitumen impregnated paper.
- Used in the wall or roof cavity as a second line of defence against moisture and drafts.
- Also provides temporary weather protection prior to the application of wall cladding or roofing material.
- Available in Standard or Heavy Weight.
- Meets the performance requirements of NZBC B2.3(c).
- Complies with NZS 2295: 2006.
- Can be used in 'Extra High' Wind Zones when installed over a rigid sheathing in accordance with E2/AS1.
- Meets the requirements of NZBC Acceptable Solution E2/AS1, Table 23.
- Complies with the requirements of AS/NZS 4200.1: 1994 Pliable Building Membranes and Underlays.
- When used in the ceiling cavity, we recommend that Pauloid Building Papers be supported by Bayonet Premium-6 Hexagonal Wire Netting.
- Kiwi made.

TECHNICAL INFORMATION

Product Description

Pauloid Building Papers are a range of bitumen impregnated Kraft based paper products manufactured by Paul Industries. The papers vary in weight dependent on the application.

Applications

Pauloid Bituminous Building Paper products are supplied in rolls ready for use in building wall cavities and in roof spaces.

Pauloid Bituminous Building Papers are breather type for use in controlling moisture and air movement behind wall claddings and beneath roof claddings in timber and steel frame buildings.

Product Information

Pauloid Bituminous Building Papers are a range of breather type building papers which are for use in timber and steel frame buildings, to provide the following functions:

- Protection against occasional leakage through exterior claddings.
- Control over the movement and accumulation of moisture arising from construction and internal sources. (Allows water vapour to escape and absorbs temporary condensation).
- Control of air leakage and dust infiltration due to wind.
- Temporary weather protection.

Where used to provide temporary weather protection it should not be relied upon to provide protection against severe weather conditions or to protect water sensitive materials. In all cases ensure the framing is clad as soon as possible to avoid damage to the building paper.

Prior to installing the cladding system any such damage must be repaired in accordance with the manufacturer's instructions.

The Pauloid range consists of standard weight and heavy weight building paper, which are for use in wall cavities behind suitable claddings and as roofing underlay beneath suitable roof claddings. Suitable wall or roof claddings are those defined by Section 8 and 11 respectively of NZS 3604: 2011 and include the wall claddings stated in this brochure. The uses for each of the products are summarised in Table 1.

Pauloid Bituminous Building Papers can be used in 'Extra High' Wind Zones when installed over a rigid sheathing in accordance with E2/AS1.

Thick light weight and heavy weight claddings are typically more than 10mm thick and include bevel backed weatherboards, solid plaster finishes and masonry veneers. Sheet claddings include fibre cement board, plywood and corrugated steel.

Light weight claddings are typically less than 10mm thick and include PVC, steel and aluminium weatherboards and wall shingles. Unitised claddings include shingles and other small cladding units.

Table 1. Pauloid Bituminous Building Paper and Roofing Underlay Use Chart.

Location	Cladding Type	Sheathing Type for NZS 3604: 2011 Wind Zones				
		L	M	H	VH	EH
Wall	Where there is an effective barrier to air leakage: thick light weight, heavy weight and sheet claddings	PS	PS	PH or PR	PH or PR	PH or PR
	Where air leakage is significant: light weight, unitised or semi-sealed claddings	PH or PR	PH or PR	SS	SS	SS
Roof	All types	PS	PH	PH or PR	PR	PR

NZS 3604: 2011 Wind Zones

L – Low, M – Medium, H – High, VH – Very High, EH – Extra High.

Sheathing Type

PS Pauloid Standard Weight Building Paper.

PH Pauloid Heavy Weight Building Paper.

PR Pauloid Roofing Underlay (See Pauloid Bituminous Roofing Underlay Technical Information Sheet).

SS Solid sheathing (Refer paragraph 8.6 of NZS 3604: 2011) or 2 layers of PH or PR backed by Bayonet Premium-6 Hexagonal Wire Netting.

Semi-sealed claddings include rusticated weatherboards, timber board and batten, fibre cement plank, and vertical shiplap boards. In NZS 3604: 2011 High to Very High Wind Zones, all these cladding types are required to be backed by solid sheathing (SS), such as plywood or, two layers of heavy weight building paper backed by Bayonet Premium-6 Hexagonal Wire Netting (maximum mesh size 75mm).

Where adverse site weather conditions or a long exposure time (up to four weeks) is expected, only heavy weight building paper should be used. Generally heavier grades should be specified where adverse conditions are expected.

When heavy weight paper is used as a roofing underlay, it must be supported by Bayonet Premium-6 Hexagonal Wire Netting.

Alternatively other suitably durable corrosion resistant material e.g. Kiwimesh, at a maximum spacing of 300mm must be used.

When used in cavities behind wall cladding, or as underlay beneath roof cladding in accordance with Paul Industries instructions, Pauloid Building Papers will meet the performance requirements of NZBC B2.3(c) 15 years.

When installed in accordance with Paul Industries' instructions, Pauloid Bituminous Building Paper has an expected serviceable life as indicated in Table 2 below.

Table 2. Serviceable Life for Pauloid Bituminous Standard Weight & Heavy Weight Building Papers.

Location	Situation	Serviceable life (years) for all NZS 3604: 2011 Wind Zones where cladding is:	
		Dark Coloured	Light Coloured
Walls	Behind light weight, unitised or semi-sealed claddings on walls facing north, west or east	15	50
	Behind light weight, unitised or semi-sealed claddings on walls facing south	50	50
	Behind thick light weight, heavy weight and sheet claddings on walls facing any direction	50	50
Roof (Under all cladding types)	Supported by wire netting	50	50
	Supported by framing or other suitable durable corrosion resistant material at 300mm centres	35	50
	Unsupported spanning up to 1200mm (underlay only)	15	15

The serviceable life ratings given in Table 2 apply to Pauloid Bituminous Building Papers Installed in a wall or roof cavity in accordance with the use requirements of Table 1 where the wall or roof cladding is well maintained, the building paper is subject to occasional wetting only, is not exposed to relative humidity in excess of 90% for sustained periods and is exposed, before closing in, to moderate weather conditions only, for not more than four weeks.

When Pauloid Bituminous Building Papers are used in buildings without ceilings and supported at a maximum of 300mm centres, a serviceable life of 25 years can be expected when adequate protection from physical damage is provided.

Pauloid Bituminous Building Papers will meet these requirements by acting as a wind barrier, thereby minimising the entry of water, and by forming a physical waterproofing barrier immediately beneath the cladding to shed water if leakage through the cladding occurs.

Pauloid Bituminous Building Papers comply with NZBC E2/AS1 requirement for vapour flow resistance and surface absorbency and will therefore contribute towards compliance with the performance requirements of NZBC Clauses E2.3.5 and E2.3.6.

During handling, installation or serviceable life these products don't constitute a hazard to people. Pauloid Bituminous Building Papers will therefore meet the provisions of NZBC Clause F2.3.1.

The thermal insulation resistance of building papers is not significant. However, when properly installed, air leakage will be minimal and the insulation performance of the building envelope will be improved.

If Pauloid Bituminous Building Papers are used in accordance with the information contained in this brochure, the relevant provisions of the following NZBC Clauses will be met: B2 Durability; E2 External Moisture; and F2 Hazardous Building Materials.

Handling & Storage

Rolls are wrapped in brown Kraft paper and must be stored off the ground, on end, under cover, in clean dry conditions. The products must be handled with care to avoid damage.

Technical Data

Pauloid Building Papers consist of a range of standard weight and heavy weight bitumen impregnated Kraft based papers.

The standard weight paper range is supplied in rolls 1370mm wide, in lengths of 73m, 36.5m and 18.25m. The heavy weight paper range is supplied in rolls 1370mm wide, in lengths of 73m, 36.5m and 18.25m. Each roll is labelled with the product name, dimensions, and manufacturer's information.

The following tests have been carried out to establish the suitability of Pauloid Bituminous Building Papers:

- By the Pulp and Paper Research Organisation (PAPRO): water absorbency tests in accordance with NZS 2295: 2006. Bursting strength tests in accordance with AS 1301.438s: 1989. Resistance to water penetration in accordance with NZS 2295.
- By the Forest Research Institute Laboratory: PH reaction tests to BS2924: 1983 (1992), Part 1.
- By Graysons Laboratories: Permeability tests to ASTM E96-80, Procedure D.

Installation

These instructions are based on the requirements of NZBC E2/AS1, Paragraph 2.4.3 or NZS 3604: 2011, Clause 8.6.2 for walls; and NZBC E2/AS1, Paragraph 1.3 or NZS 3604: 2011 Clause 11.2.3 for roofs.

Pauloid Bituminous Building Papers must be installed on the exterior face of the framing and it is recommended that they be run horizontally with the upper sheet lapped 150mm over the bottom sheet. The minimum lap is 75mm.

For walls, the product must extend from the underside of bearers, or wall plates supporting the ground floor joists, to the top of the top plate.

Pauloid Bituminous Building Papers must be stapled, tacked or fixed in place using proprietary building paper fixings, at 300mm maximum spacing to all framing. In windy conditions more fixings or fixings with larger heads may be necessary. The cladding should then be installed as soon as possible.

Where used as a roofing underlay the product is most effective when run parallel to the ridge across rafters or truss top chords and beneath tile battens with sag sufficient to facilitate drainage.

The upper sheets should lap over lower sheets by 150mm (75mm is the minimum lap). End laps must be one full rafter or truss space or 600mm whichever is greater. Where the product is run parallel to rafters or trusses and across purlins, side laps must be a minimum of 150mm.

The product must be lapped at least 25mm over fascia boards and valley flashing and be continuous over ridges and hips.

Note must be taken of the situations where wire netting support has to be provided to meet durability expectations.

The joints of Pauloid Bituminous Building Papers shall be sealed by taping or by other suitable means in the High and Very High Building Wind Zones of NZS 3604: 2011.

Tape shall be suitable for the purpose and have durability compatible with the building paper use.

To preclude back drainage at laps, roofing underlay should not be used unsupported where laps are parallel to rafters or trusses; or on roofing pitches less than 10 degrees. Where the paper is used for roofs with low pitches and long rafter lengths consideration should be given to the use of anti-ponding boards at the fascia. All damaged building paper must be repaired or replaced prior to installation of the cladding. Repair of tears and holes may be effected by lapping the damaged areas by at least 75mm, taping the laps and fixing to framing at the perimeter of the damaged area. All holes for services (except flues and chimneys as indicated) must be cut neatly to butt against and be taped to the service element.

A separation must be maintained between chimneys, flues and fuel burning appliances.

Size Range Available

Product Code	Description	Width x Length (mm x m)	Total (m ²)	Weight (kg)	Barcode
SW1370100	Standard Weight Bituminous	1370 x 73.00	100	19.33	9421026723239
SW137050	Standard Weight Bituminous	1370 x 36.50	50	10.00	9421026723253
SW137025	Standard Weight Bituminous	1370 x 18.25	25	5.00	9421026723246
HW1370100	Heavy Weight Bituminous	1370 x 73.00	100	24.50	9421026722249
HW137050	Heavy Weight Bituminous	1370 x 36.50	50	12.33	9421026722263
HW137025	Heavy Weight Bituminous	1370 x 18.25	25	6.15	9421026722256