



Product Specification:

PORTER'S MINERAL PAINT

PRODUCT DESCRIPTION:

Porter's Mineral Paint range combines beauty with substance. Our aesthetically exquisite mineral silicate paints are made with cutting-edge technology to bring you beautiful exteriors that stand the test of time.

The Finish: Porter's Mineral Paint dries to a flat finish, bringing a high-end feel to masonry substrates. Its microscopically rough surface diffuses light, hiding surface irregularities on concrete and rendered substrates.

No blistering, peeling, or flaking: Mineral Paint chemically reacts with the masonry substrate, so in the process of silicification the paint and the substrate become one. When cured, our paint forms a crystalline structure, binding chemically to the substrate.

The result is that the cured paint forms an inorganic structure with a very strong bond to the substrate, and cannot crack, peel or flake. Compared to emulsion paints, which require recoating after some years, Porter's Mineral Paint is durable and colour stable for several decades.

Water vapour can escape: The microporous nature of the paint means it is "breathable", allowing water vapour to escape from the substrate while repelling water from the outside.

Algae and fungal resistant: Porter's Mineral Paint has high alkalinity, providing natural antimicrobial properties. This helps reduce the likelihood of microbes such as algae, fungus, mould, and mildew developing on the surface. The high breathability of mineral paints also helps maintain a health moisture balance in the substrate, further reducing the possibility of algae and fungal growth.

Non-combustible: due to its chemical nature, Porter's Mineral Paint does not support combustion. It received perfect results in testing for AS 1530.3 for Ignitability, Flame Propagation, Health, and Smoke Generation, with scores of zero for all test categories.

Self-Cleaning: Because the silicates in mineral paint do not thermoplasticise and become sticky in the heat like acrylic paints, dirt is less likely to embed on the surface. Our mineral paint contains a water repellent additive, so any dirt is easily washed away with water or sheeting rain. Because mineral paints do not hold static charge, they are less likely to attract dirt and dust in the first place.

Scan this QR code to meet our Technical Manager Josh Plautz, who explains Porter's Mineral Paint's cutting-edge technology.



LOCATION:

Exterior.

ENVIRONMENTAL INFORMATION:

This product contains: <15g/L VOC's (Volatile Organic Compounds contribute to atmospheric pollution).

The following descriptors have been adopted by APAS (Australian Paint Approval Scheme):

Very High	>250 g/L
High	100 – 249 g/L
Moderate	50 – 99 g/L
Low	5 – 49 g/L
Very Low	<5 g/L

This product is classified as Low VOC by the Australian Paint Approval Scheme.

Porter's Paints use only premium grade raw materials and wherever possible we buy from Australian suppliers. Our manufacturing processes are designed for maximum performance with minimum impact on the environment and user health.

SUGGESTED APPLICATIONS:

Cement render, bagged brickwork, concrete, masonry blocks, bricks, sandstone, off form concrete, tilt up concrete panels and most absorbent building stones. All surfaces should be in a sound condition.

COLOUR:

Colour-fast: Porter's Mineral Paint is made with inorganic pigments. Because these pigments are not vulnerable to UV radiation, they are resistant to fading and dulling. For this reason, Porter's Mineral Paint retains exceptional depth of colour and performance over time.

Select from our range of popular colours, request a custom colour match or match directly in-store. All our tints have no added VOC or SVOC and are very low odour, conforming to Green Building Standards.

Our base and tint system allows for convenience and flexibility. Mineral Paint can be quickly colour matched and mixed in-store from multiple distribution points in Australia.

Mineral Silicate Primer appears milky white in can, dries clear.

LIMITATIONS:

Mineral Paint is not suitable for use on glazed bricks, glazed tiles, timber, metal, paperfaced plasterboard and fibrous cement sheeting. Mineral Paint is not suitable as a floor or paving paint. Mineral Paint will not bond to synthetic compounds such as epoxy or silicone. Not suitable for surfaces previously painted with oil based enamel paints or water based acrylic paints.

Although Mineral Paint is suitable for fibrous cement sheeting, sheeted building products are designed to be flexible, and often use jointing compounds or tapes to bridge the gaps between the sheets.

Mineral Paint is a rock hard finish, and a flexible substrate or movement where the sheets join may cause cracks to appear.

Application by spray gun is inadvisable because of the effects of alkaline overspray onto nearby glass, vehicle finishes etc. Ensure all glass, aluminium, metal finishes and vehicles are protected from Porter's Mineral Paint, which, due to the silification bonding process, etches on and can prove extremely difficult to remove.

When damp or wet the colour will darken slightly and will lighten to the original colour when dry.

Do not apply Mineral Paint over construction or expansion joints.

Always order sufficient quantities of Mineral Paint to complete the work to eliminate possible colour variation.

Avoid "retouching" the final coat of Mineral Paint as the touched up area will produce a distinctly different tone of colour. If the surface must be touched up, ensure that all repainted sections are finalized at a clean edge or expansion joint.

Do not apply in high humidity, below 10°C or above 30°C.

PREPARATION:

CURING OF NEW SUBSTRATES:

Newly completed walls should be allowed to cure before the application of Mineral Silicate paint systems .

Precast and Insitu Concrete	28 Days
Bagged cement surfaces	14 Days
Bricks and Mortar	28 Days
Filled Concrete Blocks	28 Days
Cement Render	14 Days for every 10-15mm application

Concrete poured in cold, damp, and humid environments may require longer curing times than the times suggested above.

NEW/UNPAINTED SUBSTRATES:

Substrate should be a clean well-held surface free from loose material, dirt, grease, oil and mould. The surface should be thoroughly swept and hosed to remove all dust, loose sand and projecting cement material. Complete the painting of all adjacent surfaces and trim items before the application of Porter's Mineral Paint.

Apply 1 coat of Porter's Mineral Silicate Primer to the entire wall surface by brush or roller. Application by spray gun is inadvisable because of the effects of alkaline overspray onto nearby glass, vehicle finishes etc.

Touch dry 20 minutes. Allow 2 hours dry time before overcoating with Porter's Mineral Paint.

OFF-FORM CONCRETE AND TILT-UP SLAB CONSTRUCTION:

Pre-cast concrete and tilt-up surfaces require treatment with a suitable bond breaker and degreaser to remove ALL traces of bond breakers/release agents prior to priming/painting and importantly, to remove any "glazed" or "polished" appearance, as Mineral Paint can only adhere to an absorbent masonry surface.

Apply 1 coat of Porter's Mineral Silicate Primer to the entire wall surface by brush or roller. Application by spray gun is inadvisable because of the effects of alkaline overspray onto nearby glass, vehicle finishes etc.

Touch dry 20 minutes. Allow 2 hours dry time before overcoating with Porter's Mineral Paint.

OFF-SITE PAINTING OF PRE-CAST AND STRUCTURAL PANEL SYSTEMS:

If painting cannot be completed in-situ, care should be taken to maximise colour uniformity by considering the following:

- "Boxing" paints or stains to a professional standard and purchasing sufficient quantity of paint or stain as one order.
- Avoiding damage in transit. Pre-cast concrete and prefabricated masonry products are susceptible to damage during transport, during wrapping or in storage, which may affect the painted finish.
- Paint touch ups, even with the same paint material, may be evident if care is not taken.

EFFLORESCENCE:

Some masonry surfaces show evidence of efflorescence, which is white powdery alkaline salts sitting on the surface. This problem is caused by moisture having penetrated the substrate which puts these salts into a solution, which then migrates to the surface where the water evaporates and deposits the efflorescence salts onto the masonry surface, lifting any paint finishes that have previously been applied.

Important Note: The source of moisture causing the efflorescence needs to be investigated and correctly addressed.

Any efflorescence on the surface must be removed prior to painting as it is regarded as a poor and friable base that can prevent mineral coatings from bonding effectively.

Efflorescence and alkali salts can be removed by dry brushing with a stiff bristled brush followed by wet sponging the surface with a mild 5% solution of white vinegar (Acetic Acid) in water. The whole area should then be wiped down with a damp cloth and allowed to dry thoroughly.

In severe cases, remove alkaline salts by dry brushing with a stiff bristled brush followed by a stronger acidic solution (35% commercial grade calcium chloride mixed 1 part to 3 parts water) should be applied by an experienced contractor, to chemically remove/neutralize the alkaline salts then allow to dry for 48 hours.

APPLICATION:

(On hot, dry, or windy days whenever possible work in shaded areas, following the sun around the structure).

Apply 2 coats of Mineral Paint using a brush (4x14cm block brush), or a roller, in a “crow’s feet” or random, multi-directional pattern. Take care to brush the Mineral Paint well into the texture of the surface. If using a roller, use a synthetic cover with 16mm nap for smooth substrates, 20–22mm for render surfaces, 25mm for heavier textures such as bagged render and pebbledash. Application by spray gun is inadvisable because of the effects of alkaline overspray onto nearby glass, vehicle finishes etc.

Important: Use only one method of application, do not mix application tools. It is important to keep a “wet edge” at all times. Do not stop in the middle of a wall as a dry edge mark may appear. Wet/dry lapping will show as a distinct mark. All work should be arranged to allow completion at a construction

joint or a natural division such as a corner. Cut in around windows and doors as you come to them.

Splashes onto glass, footpaths, timber etc should be removed *immediately* with water.

Touch dry 20 minutes. Allow minimum 2 hours dry time between coats.

Apply second coat as per first, and if applying by roller “lay off” final coat by brush to obtain required surface profile and to minimize “roller lines”. Again, cut in progressively.

THINNING:

If thinning is required, up to 20% Mineral Silicate Primer may be added to the first coat. Second coat add a maximum of 5% Mineral Silicate Primer.

COVERAGE RATES:

Covers approximately 5m² per litre, depending upon porosity, surface texture and wastage rates.

Mineral Silicate Primer covers approximately 10m² per litre, depending upon porosity, surface texture and wastage rates.

WASH UP:

Water.

COMPLEMENTARY PRODUCTS:

Porter’s Mineral Silicate Primer is to be applied to all bare masonry surfaces prior to application of Mineral Paint.

To maintain uniformity of finish on surfaces unsuitable for Mineral Paint (e.g. galvanized down pipes, timber trim etc) we recommend Porter’s Stone Paint (Fine). Stone Paint (coverage 10m² per litre) is 100% acrylic and can be applied by brush or roller. Stone Paint can be tinted to match your Mineral Paint colour and has a granular, matt surface similar to Mineral Paint.

PACKAGING:

Mineral Paint is available in 1L and 15L sizes.

Mineral Silicate Primer is available in 1L, 4L and 15L.

STORAGE:

Store in a cool dry area, protected from frost.

PRECAUTIONS:

Keep out of reach of children. Avoid swallowing. Avoid eye contact. Avoid prolonged skin contact. If accidental contact occurs, rinse immediately with water. Check colour before use.

TESTING:

Porter's Mineral Paint has been tested to the following standards:

AS 1503.3 for IGNITABILITY, FLAME PROPAGATION, HEALTH, AND SMOKE GENERATION.

Received perfect results with scores of zero for all test categories.

ASTM D6904-03 (13) for RESISTANCE TO WIND-DRIVEN RAIN FOR EXTERIOR COATINGS APPLIED ON MASONRY.

There are no pass/fail criteria listed in the test methods. Test report noted that Porter's Mineral Paint did not have any visual changes from the exposure to the wind driven rain cabinet, nor did it have any water penetrating to the back of the test panels. Most coating manufacturers require a maximum gain, due to water absorption, of 90.72 grams per test panel. Porter's Mineral Paint gained an average maximum of 82.1 grams per test panel.

AS/NZS 4548.5-1999. Provides guidelines for a series of test methods for long-life coatings for concrete and masonry including tests for water vapour transmission. A general definition of WVTR is the mass of water vapor that passes through a given area of material being tested at a specified temperature and humidity over a given period. As a result, it is generally expressed in grams/square metre/24 hours. The higher the number, the more water vapor that has passed through the material in

24 hours, and therefore the more breathable the paint. Porter's Mineral Paint passed 2,201.4 g/m²/24 hours.

GUARANTEES & WARRANTIES:

CONSUMER GUARANTEE:

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Porter's Paints Mineral Paint is guaranteed against peeling, flaking and blistering on external applications for 25 years if applied according to the specified instructions. This guarantee applies to residential work only and does not cover paint failure caused by any breakdown of coatings applied previously, where Porter's Paints Mineral Paint is applied over coatings not specified by Porter's Paints or in the event of substrate failure.

COMMERCIAL WARRANTY:

On a case-by-case basis, we can arrange a commercial warranty for licensed trade painters and builders. To make an application for a warranty, contact your Porter's Business Development Manager or Dulux Representative. The benefits of this warranty are in addition to other rights and remedies under any applicable law.

POST INSTALLATION MAINTENANCE SCHEDULE:

In general, the maintenance required for Porter's Mineral Paint is as follows:

1.

Use a low-pressure water wash with a mild acid-free detergent to remove surface dirt, dust and any other contaminants. Persistent or stubborn dirt remaining after water washing should not be removed. Porter's Paints does not recommend scrubbing with harsh brushes or stiff bristle brooms, as this mechanical action may scuff or damage the porous surface.

2.

If a fresh coat(s) of Mineral Paint is to be applied, then follow the above cleaning directions and allow the surface to dry completely. Apply subsequent coats by large Block Brush or 14-18mm nap roller as advised in specifications, keeping the paint edge wet and moving in one direction only.

3.

If at any stage there is more than superficial damage to the wall, then the affected area will need to be filled with a traditional, lime-based cement compound. Allow the patched area to cure completely.

Apply Mineral Silicate Primer to the newly filled area and allow to dry for a minimum of two hours. Spot prime the affected area with one coat of Mineral Paint and allow to dry for a minimum of two hours.

Once dry, apply one coat of Mineral Paint to the entire substrate by Lime Brush or roller as advised in specifications, keeping the paint edge wet and moving in one direction only.

Note: Darker colour mineral coatings may not blend in seamlessly, due to differences in curing times and conditions

MANUFACTURER'S/DISTRIBUTOR'S DETAILS:

Porter's Paints

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Padstow NSW 2211

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Lower Hutt 5010

New Zealand

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CERTIFICATE

Material Fire Test Certificate

IGNL-4146-03C I01R00
Date of Test 05.11.2020
ISSUED 07.12.2020
EXPIRY 06.12.2025

AS 1530.3-1999: SIMULTANEOUS
DETERMINATION OF
IGNITABILITY, FLAME
PROPAGATION, HEAT RELEASE
AND SMOKE RELEASE

Specimen Identification

Porters Mineral Silicate Paint

Specimen Description

The sponsor described the tested specimen as a Potassium silicate based paint designed for application on masonry surfaces. The nominal composition consists of primarily potassium silicate, calcium carbonate and a small percentage of acrylic binder. The nominal dry film thickness (DFT) is 150-200µm and the colour is white. The end use of the specimen is decoration of masonry surfaces.

Test Method

Six samples were tested in accordance with Australian Standard 1530, Method for fire tests on building components and structures, Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release, 1999. For the test, each sample was clamped to the specimen holder in four places. A woven metal radiant panel was used in lieu of ceramic tiles.

Observations

Six specimens presented equivalent results. A negligible amount of smoke was observed, but all specimens showed 100% transmission during the entire test duration due to dissipative effects before detection by the optical system. No spark or sustained flaming was observed. Cracking lines were observed on specimens post the test except for specimen 2.

PRESENTED TO

Dulux Group
1956 Dandenong Road
Victoria Australia 3168

TEST BODY

Ignis Labs Pty Ltd
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Test body is the test location

Parameter	Symbol	Unit	Results								
Specimen number			1	2	3	4	5	6	7	8	9
Ignition time	Ti	min	NA	NA	NA	NA	NA	NA	-	-	-
Flame Propagation time	Tf	s	-	-	-	-	-	-	-	-	-
Heat release integral		kJ/m ²	-	-	-	-	-	-	-	-	-
Optical density (ignition)	D	/m	-	-	-	-	-	-	-	-	-
Optical density (non ignition)	D _{NI}	/m	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-
Smoke release (ignition)	Log10(D)		-	-	-	-	-	-	-	-	-
Smoke release (non ignition)	Log10(D)NI		NA	NA	NA	NA	NA	NA	-	-	-

Calculation

Parameter	Mean	Standard Error	Comment
Ignition time	NA	-	
Flame Propagation time	NA	-	
Heat release integral	NA	-	
Optical density (ignition)	-	-	
Optical density (non ignition)	0.00	0.00	
Smoke release	NA	-	

Result

Indices	Range	Result	BCA Specification C1.10	
Ignitability	0-20	0	-	-
Spread of Flame	0-10	0	9	Pass
Heat Evolved	0-10	0	-	-
Smoke Developed	0-10	0	8	Pass



Test Supervisor
Darren Laker

Technical Lead
Ram Prakash

Version:

Disclaimer

These test results relate only to the behaviour of the test specimens of the material under the particular conditions of the test, and they are not intended to be the sole criterion for assessing the potential fire hazard of the material in use. The information contained in this document is provided for the sole use of the recipient and no reliance should be placed on the information by any other person. In the event that the information is disclosed or furnished to any other person, the Ignis Labs Pty accepts no liability for any loss or damage incurred by that person whatsoever as a result of using the information.

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Client: Dulux Australia Pty Ltd
1956 Dandenong Road
Clayton VIC 3168

Your Reference: Porter's Mineral Paint Testing

Our Reference: JN 20-10-196

Certificate of Test No. 15146

Sample: Silicate Paint Sample

Date Received: 16th July 2020

Date Tested: 18th September – 05th October 2020

From:

Description & Condition: 1 -off 1L container of paint sample

Test Description: Water Vapour Transmission

Sample Preparation:

Coating system consisted of 2 coats applied to unglazed ceramic tiles by SGS Laboratory by 10 mm nap roller. Recoat interval was 2 hours. Test pieces conditioned for 28 days at $23 \pm 2^{\circ}\text{C}$. Samples placed in test dishes with coated face exposed in the low RH environment and sealed with silicone prior to testing.

Test Method:

In accordance with AS/NZS 4548.5-1999 "Guide to long-life coatings for concrete and masonry Part 5: Guidelines to methods of test" Appendix C. The diffusion coefficient for water vapour (D_{H_2O}) was calculated using Fick's First Law of Diffusion.

Tested By
A. Luobikis, Geotechnician

05/10/2020

Date

Authorised Signatory
N. Nguyen, Specialised Laboratory Manager

14/10/2020

Date



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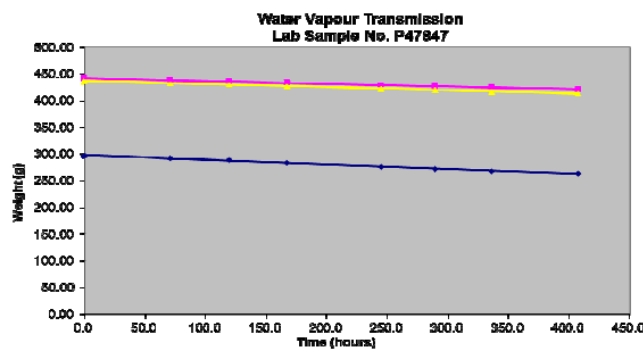
SGS Australia Pty Ltd | Industrial Division, 112 Mulgool Road Malaga WA 6090 | t + 1300 781 744 | f + 61 (8) 9209 8781 | www.sgs.com



Certificate No. 15146

Test Results:

SGS Sample No:	P47847	Average
Client Identification:	Porter's Mineral Silicate – White Base	
Measured Dry Film Thickness, microns:	190	
Temperature during test, °C:	23 ± 2	
Relative Humidity during test, %:	8.4	
Vapour Transmission Rate of Composite, g/m ² /24 hour:	189.3	
Vapour Diffusion Coefficient of Film, cm ² /sec:	2.3 x 10 ⁻⁰³	
Diffusion Resistance Coefficient (μ):	230	
Equivalent Air Layer Thickness (S _D), m:	< 1	
Estimated Vapour Transmission Rate for Unsupported Film, g/m ² /24 hour:	2201.4	
Permeance of Film, g/Pa s m ² :	1.9 x 10 ⁻⁰⁶	1.7 x 10 ⁻⁰⁵ 1.0 x 10 ⁻⁰⁵ 9.9 x 10 ⁻⁰⁶



Notes:

1. Result shown is mean value from three test pieces.
2. S_D calculated from measured dry film thickness.
3. Klopfer criterion for an effective anti-carbonation coating is S_D < 4 m.
4. Vapour Transmission Rate of unsupported film estimated from film diffusion coefficient. Permeance value calculated from this value.
5. These results apply only to the sample as submitted to test. Changes in the nature, source, or proportion of any component may render these results invalid.

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