



CHALKBOARD PAINT

1 SCOPE

A matt paint suitable for surfacing chalkboards. The product may be either solvent-based, or water-based and is typically available in either black or green.

2 BACKGROUND

- To obtain a broad overview of the Australian Paint Approval Scheme (APAS), refer to APAS document AP-D001.
- To obtain an overview of restricted ingredients in APAS certified products, refer to APAS document AP-D123.
- To obtain the current list of APAS participating manufacturers (and suppliers) and resellers, refer to APAS document AP-D152.
- To obtain an overview of how to participate in the APAS, refer to APAS document AP-D177.
- APAS approval to this specification may be gained by compliance with the requirements detailed in this specification and those in APAS document AP-D192.

3 DESCRIPTION AND GUIDE FOR USERS

3.1 General Requirements

- A matt paint suitable for surfacing chalkboards. The product may be either solvent-based, or water-based and is typically available in either black or green.
- Key properties are ease of chalk removal and effectiveness of recoating with chalk residue on the surface.
- Application may be by either brush, roller or spray. Although capable of being handled in 12h after application, 7 days curing should be allowed prior to use with chalk.

3.2 Sub-Classes

- This specification incorporates the following sub-classes:
 - 0070/1:** Solvent-based products
 - 0070/3:** Water-based products

3.3 Basis of this Specification

- This specification is not based on any known specification or standard.
- At the time of the preparation of the original version of APAS specification AP-S0070, it was similar to British Defence Specification DEF-1442 Paint, finishing, matt, black, for blackboards and US Government Specification TT-P-32B Paint, Blackboard Coating (now withdrawn). The currency of these similar specifications should be verified prior any claim of compliance.
- Paints approved under this specification are not described in either AS/NZS 2311 or AS/NZS 2312.

4 REFERENCED DOCUMENTS

- The following standards are referenced in this document:
 - AS/NZS 1580** – Paints and related materials: Methods of test.
 - AS/NZS 2311** – Guide to the painting of buildings
 - AS/NZS 2312** – Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings
 - AS 2700** – Colour standards for general purposes

These documents may be purchased through the Reference Standards Australia website:

<https://www.standards.org.au/>

- The Poisons Standard June 2021:** Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) No. 33, Part 2: Control on Medicines and Poisons, Section Seven / Appendix I Paint or Tinters

This document is available from the Australian Government Federal Register of Legislation web site at: <https://www.legislation.gov.au/Details/F2021L00650>

- The following APAS documents are referenced in this document:
 - AP-D001 Rules Governing How APAS® Operates
 - AP-D123 Restrictions on Ingredients in Product Formulations
 - AP-D152 APAS® Participating Manufacturers and Resellers
 - AP-D177 Rules Governing How Product Manufacturers participate in APAS®
 - AP-D181 Volatile Organic Compounds (VOC) Limits
 - AP-D192 Rules Governing APAS® Product Certification Scheme

All APAS documents are available for download from the APAS website: <https://vs.csiro.au/apas/documents/>

5 COMPOSITIONAL REQUIREMENTS

5.1 Binder

- The binder shall typically be comprised of:
 - Alkyd resin for 0070/1 sub-class products
 - Acrylic emulsion for 0070/3 sub-class products

5.2 Volatiles

- The volatile portion shall typically be comprised of:
 - Hydrocarbons for 0070/1 sub-class products
 - Water for 0070/3 sub-class products
- For VOC content restrictions, refer to APAS document AP-D181.

5.3 Pigmentation

- The pigmentation shall be chosen to impart the properties detailed in clause 9, Table 1 below.

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6 PRODUCT APPROVAL REQUIREMENTS

6.1 General Requirements

- a) The product and its application for approval shall comply with the relevant requirements of APAS document AP-D192 during the life of the approval.

6.2 Technical Requirements

- a) The product shall comply with **all** the requirements of clause 9, Table 1 below.
- b) The manufacturers own quality control schedule of tests and limits shall be allowed subject to the approval of the Executive Officer (EO), APAS.
- c) On request, the EO may request the results of the tests for a batch and compare these with previous batches.
- d) Density and non-volatile content by weight (NVCW) figures for each production batch of the approved product shall be within $\pm 3\%$ of the actual (not theoretical) figures quoted in the original product approval submission (APAS document AP-D139).
- e) Subject to compliance with all the requirements of this specification, the level of Approval appropriate to the application shall be given to the system.

6.3 Health and Safety Requirements

- a) Shall not be a Schedule 1, Schedule 2 or Schedule 3 paint (SUSMP).
- b) The manufacturer's Safety Data Sheet (SDS) must be studied closely prior to using the product and complied with during use of the product.
- c) Since the paint contains a hydrocarbon solvent (where applicable), the wet paint is flammable and should be stored away from all sources of heat or ignition. Care should be taken to avoid contact with the skin by the use of protective clothing and barrier cream.
- d) Component containers should be resealed immediately after use and good ventilation provided during use to minimise the risk of fire or explosion and the long-term toxic effects of absorption of the vapour into the lungs. A full-face air fed respirator should be used when spraying. All pumping equipment should be adequately earthed.
- e) Products intended for sale in Australia shall comply with all the requirements of the SUSMP. Products intended for sale in other countries shall comply with all local WHS and environmental requirements.
- f) The product shall comply with all requirements of clause 6.3 and 6.4 of APAS document AP-D192.

7 APPENDIX A

Chalk Removal Properties

7.1 Scope

This method details how the chalk removal properties of these products are to be assessed.

7.2 Methodology

Repeated applications and removal of chalk lines

from the surface are visually assessed and rated using both wet and dry techniques.

7.3 Equipment

- Un-primed hardboard panel of minimum dimensions 300 x 100 x 4mm
- Standard commercially available chalk sticks of two colours one of which must be white
- Soft rag and chalk duster
- Paper towel
- Tap water

7.4 Procedure A – Wet Technique

1. Apply test paint to the test panel at the recommended spreading rate and allow to dry at ambient conditions for 7 days.
2. Apply two parallel lines of different coloured chalk approximately 100mm in length and 50mm apart. Use a single down and up motion to give an effective two passes to each line.
3. Gently wash under running water using the soft rag wetted with water.
4. Gently dab with paper towel or similar and allow the panel to dry for 1 hour.
5. Repeat a further 3 times ensuring the application of the lines occurs in the same spot each time.
6. Mark a single "down" line in each assessed area using the same colour chalk.
7. Assess the panel for effectiveness of removal.

7.5 Procedure B – Dry Technique

1. As for Procedure A but removal of chalk shall be by dry rubbing with a chalk duster across both lines simultaneously using 10 double rubs (back and forth).

7.6 Rating

At the conclusion of the 4 cycles, rate the appearance of the test panel according to the following:

Rating	Description
0	No removal of old chalk; new chalk mark indistinguishable over washed area.
1	Very poor removal of old chalk; new chalk line almost indistinguishable from washed area.
2	Poor removal of old chalk; new chalk line just capable of being differentiated from wash area.
3	Barely acceptable removal of old chalk; new chalk line can be differentiated from wash area.
4	Good removal of old chalk; new chalk line easily capable of being differentiated from wash area.
5	Complete removal of old chalk; new chalk line appears to be written on new blackboard.



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8 APPENDIX B

Recoating Properties

8.1 Scope

This method seeks to ensure that repainting a chalkboard produces a satisfactory adherent finish.

8.2 Methodology

A test panel with half the area well coated in chalk has the chalk removed using dry eraser techniques. The test panel is then recoated and assessed for appearance and adhesion.

8.3 Equipment

- Un-primed hardboard panel of minimum dimensions 300 x 100 x 4mm
- Standard commercially available chalk sticks of two colours one of which must be white
- Chalk duster
- Sharp blade

8.4 Procedure

1. Apply chalk to half the test panel and remove using the duster. Blow off excess gently.
2. Repeat on the same half.
3. Recoat the entire panel with one coat of the test paint and allow to dry 7 days.
4. Test adhesion according to AS 1580.408.4.



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9 TABLE 1: PERFORMANCE PROPERTIES

TEST	AS/NZS 1580 METHOD	REQUIREMENTS
Wet Paint Testing		
Preliminary Examination	103.1	To be readily reincorporated. Shall be free of any coarse particles, sediment, gel and foreign matter.
Fineness of Grind	204.1	≤ 50 µm.
Application Properties - Brushing - Rolling - Spraying	205.1 205.3 205.2	Shall show satisfactory application properties and the dry film shall have a uniform colour, gloss and finish and be free of defects.
Reincorporation after Storage	211.2	To comply with all the preceding requirements after 18 months storage at ambient temperature.
Degree of Settling	211.1	Settling rating not to fall below 6 after 18 months storage.
VOC Content	APAS AP-D181	Refer to APAS document AP-D181 for method and limits. If the APAS specification is not listed on AP-D181, a declaration of VOC content is still required .
Dry Film Testing		
Colour - Visual Comparison	601.1	Approximate match to black or green (AS 2700 G23 Shamrock Green).
Finish	603.1	Shall be free of coarse particles, wrinkling or orange peel and have a uniform colour and appearance.
Specular Gloss	602.2	≤ 5 units at 60°.
Hard Dry Conditions	401.5	0070/1: Maximum 12 hours. 0070/3: Maximum 4 hours.
Ease of Marking and Removal	Clause 7, Appendix A	Wet rating: ≥ 4. Dry rating: ≥ 3.
Recoating Properties	Clause 8, Appendix B	Rating: ≤ 1.



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10 APPENDIX C

Document History

Status: Current
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Document Version No.:	Date Published:	Summary of Changes:
10	27-08-2021	<ul style="list-style-type: none">• General format change to clause 1 and 6.2• Updated background information in clause 2• Updated SUSMP information• Updated APAS website information
9	11-11-2020	<ul style="list-style-type: none">• Addition of Appendix C Document History and removal of the Editorial Note previously used in specification versions• Updated document to the current format• Updated internal and external document references• Inclusion of VOC Content requirement to Table 1 Performance Properties• Addition of "People + Product = Protection" to Footer
8	14-05-2006	<ul style="list-style-type: none">• Incorporated water-based products and a general format update
7	21-04-2003	<ul style="list-style-type: none">• Deleted reference to GPC numbering and incorporated a general format update
6	24-01-2001	<ul style="list-style-type: none">• Initiated the second stage of the move to new specification numbering with prominence given to the new number (previously GPC-P-70)