

## ALKYD ENAMEL (BUILDINGS)

### 1 SCOPE

An alkyd finishing paint for the exterior or interior of buildings. Available in full and semi-gloss from stock in a manufacturer's colour range as illustrated on a colour card with colours of lesser opacity and/or durability marked. Semi-gloss products are suitable for interior only.

### 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

- Apply to a primed and undercoated, or previously painted, surface. Apply by brush, roller or spray typically to a dry film thickness of 20 - 30µm. Handling time 16 hours.
- Where extended exterior durability is required on timber surfaces, the use of Gloss Exterior Latex paints, as covered by APAS specification AP-S0280/1, is recommended. However, solvent-borne products may still be preferred where surfaces come into contact such as window sashes, or where enhanced resistance to wear and tear is required.

#### 3.2 Sub-Classes

- This specification incorporates sub-classes:
  - 0015/1:** Full gloss, interior / exterior enamel
  - 0015/3:** Semi-gloss interior enamel

#### 3.3 Basis of this Specification

- This specification is based on:
  - AS/NZS 3730.6 for 0015/1
  - AS/NZS 3730.5 for 0015/3
- Products in sub-class 0015/1 correspond to Paint Reference Number (PRN) B5 of AS/NZS 2311.
- Products in sub-class 0015/3 correspond to PRN B3 of AS/NZS 2311.

### 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 3730.5** – Guide to the properties of paints for buildings, Part 5: Solvent-borne – Interior – Semi-gloss
- AS 3730.6** – Guide to the properties of paints for buildings, Part 5: Solvent-borne – Interior/Exterior – Full gloss enamel

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 consist of alkyd resin.

#### 5.2 Volatiles

- The volatiles shall consist essentially of hydrocarbons.
- For VOC content restrictions, refer to APAS document AP-D181.

#### 5.3 Pigmentation

- The pigmentation shall consist of appropriate colouring pigments chosen to impart the properties detailed in clause 7, Table 1 below.

### 6 PRODUCT APPROVAL REQUIREMENTS

#### 6.1 General Requirements

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



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### 6.2 Technical Requirements

- a) The product shall comply with **all** the requirements of clause 7, 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, APAS.
- c) On request, the Executive Officer, APAS 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 or Schedule 2 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 most products contain volatile and flammable solvents, the paint should be stored away from all sources of heat or ignition. 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.
- d) To ensure minimal exposure to solvent vapours, painting should not be carried out whilst the building is occupied.
- e) Exterior doors, windows and relevant interior connecting doors should be propped open to ensure adequate ventilation. Alternatively, forced air ventilation should be used to ensure adequate air changes.
- f) Care should be taken when applying all products to avoid contact with the skin using protective clothing and barrier cream. A full-face air fed respirator should be used when spraying. All pumping equipment should be adequately earthed.
- g) 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.



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7 TABLE 1: PERFORMANCE PROPERTIES

TEST	AS/NZS 1580 METHOD	REQUIREMENTS
General Requirements	AS 3730.6 for 0015/1 or AS 3730.5 for 0015/3 (as applicable)	Shall comply with <b>all</b> the requirements of clause 5 <b>Typical Properties and Characteristics</b> from the applicable standard, except as amended below. All results shall be reported.
Non-Volatile Content by Volume (Volume Solids)	301.2	Minimum 45% <ul style="list-style-type: none"><li>Volume solids may be determined theoretically from raw material data except where solid constituents incorporate sealed air voids.</li></ul>
Viscosity	214.3	0.1 – 0.4 Pas.
Resistance to Natural Weathering	457.1	<b>0015/1 Products Only</b> In accordance with AS 3730.6. It is likely that some colours will not fully meet the above durability requirements and these colours may be excluded from the colour range approval, refer to clause 3.1 b).
Colourant Acceptance	Appendix A of AP-S0015	Colour difference $\leq 1$ .
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 <b>is still required</b> .



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### 8 APPENDIX A

#### Colourant Acceptance Determination

The colour acceptance of the product colour range shall be proven satisfactory using the following procedure:

- Samples of white and each base should be tinted to practical colours shown on the manufacturers colour card. These colours should represent close to the maximum tinter addition allowable in that base. A number of tinters may be included in each sample, however the tinter under appraisal must comprise >25% of the total tinter added. Only sufficient samples need be prepared so as to include every tinting pigment normally available in the manufacturers tinting system. Tinters are not required to be trialled in each base and it is anticipated that the maximum number of samples required would be 6-7. The method of addition and mixing shall be as detailed on the manufacturer's printed instructions for use of the tinting system.
- Test panels are then prepared using either the Picture Frame method, the Finger Rub Up method or other agreed method.  
**Picture Frame Method:** To a sealed plasterboard panel of minimum size 500 x 500 mm, apply one coat of test paint over the whole panel and allow to dry. Apply a further coat of test paint to the plasterboard panel by roller but ensuring that the outer 75 mm perimeter of the panel is not coated. Apply a further coat of test paint by brush to the outer 100 mm perimeter of the panel and allow to dry.  
**Finger Rub Up Method:** To a sealed cardboard panel apply one coat of test paint (typically by 0.032 wire wound bar coater) and allow to dry (may be forced dry or allowed to dry overnight). Apply a further coat of test paint to the cardboard panel using the same wire wound coater. Using a finger with gentle pressure, immediately rub an area of the film about 30mm in diameter in a circular motion until a slight tackiness is detected. Allow the panel to dry overnight.  
**Other Method:** For acceptance of other test methods, manufacturer will need to provide a copy of the test procedure used together with typical test panels, to APAS for their consideration and agreement.
- The difference in colour between the two sections on the panel shall not exceed a rating of 1 when assessed using test method AS/NZS 1580.481.1.12.
- Test panels of dimensions 100 x 150 mm demonstrating the colour acceptance and including details of each colourant included in each panel, are to be supplied to APAS.



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### 9 APPENDIX B

#### Document History

Status: Current  
Version: 9  
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Document Version No.:	Date Published:	Summary of Changes:
9	26-08-2021	<ul style="list-style-type: none"><li>• General format change to clause 1, 3 b) and 4 b)</li><li>• Updated background information in clause 2</li><li>• Updated SUSMP information</li><li>• Updated APAS website information</li></ul>
8	06-11-2020	<ul style="list-style-type: none"><li>• Addition of Appendix B Document History and removal of the Editorial Note previously used in specification versions</li><li>• Updated document to the current format</li><li>• Updated internal and external document references and website details</li><li>• Inclusion of VOC Content requirement to Table 1 Performance Properties</li><li>• Addition of "People + Product = Protection" to Footer</li></ul>
7	07-04-2003	<ul style="list-style-type: none"><li>• Deleted reference to GPC numbering and incorporated a general format update</li></ul>
6	11-01-2001	<ul style="list-style-type: none"><li>• Initiated the second stage of the move to new specification numbering with prominence given to the new number (previously GPC-E-10, E-15/3 &amp; 4)</li></ul>