



## ONE PACK EXTERIOR VARNISH

### 1 SCOPE

A one pack transparent coating for timber surfaces. Exterior durability 18 months from 3 coats.

### 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

- For the protection of timber in sheltered, exterior, light wear areas.
- Apply three coats by brush or spray, each to a dry film thickness of 20 to 25  $\mu\text{m}$ . Handling time 16 hours.
- A clear finish for wood floors is available - one pack varnish interior, APAS specification AP-S0114.

#### 3.2 Sub-Classes

- This specification does not incorporate any sub-class.

#### 3.3 Basis of this Specification

- This specification is not based on an AS/NZS standard.

### 4 REFERENCED DOCUMENTS

- The following standard is referenced in this document
  - AS/NZS 1580** – Paints and related materials: Methods of test.

This document 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 an alkyd or polyurethane resin.

#### 5.2 Volatiles

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

#### 5.3 Pigmentation

- Products shall typically be unpigmented.

### 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.

#### 6.2 Technical Requirements

- The product shall comply with **all** the requirements of clause 8, Table 1 below.
- The manufacturers own quality control schedule of tests and limits shall be allowed subject to the approval of the Executive Officer (EO), APAS.
- On request, the EO may request the results of the tests for a batch and compare these with previous batches.
- 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).
- 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

- Shall not be a Schedule 1, Schedule 2 or Schedule 3 paint (SUSMP).



## ONE PACK EXTERIOR VARNISH

- 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 varnish contains a hydrocarbon solvent, 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

#### Method for the Determination of Colour

- a) Equal portions of the material and the standard solution shall be placed in similar thin walled clear glass tubes about 1 cm internal diameter and about 10 cm long.
- b) The colour comparison shall be made by placing the tubes close together and viewing them transversely in transmitted light.
- c) The colour standard shall consist of a freshly prepared solution of 1.25 gm of iodine, 6.8 gm of crystallised nickel sulphate ( $\text{NiSO}_4 \cdot 7\text{H}_2\text{O}$ ) and 3 gm of pure potassium iodide (free foam iodate) in 100 mL of water.



# SPECIFICATION AP-S0055



## ONE PACK EXTERIOR VARNISH

8 TABLE 1: PERFORMANCE PROPERTIES

TEST	AS/NZS 1580 METHOD	REQUIREMENTS
Preliminary Examination	103.1	To be readily reincorporated. Shall be a clear, bright liquid free of any sediment, gel, lumps or skin.
Skin Formation	203.1 Method B	No skin or gel particles to be formed.
Viscosity	214	Method and result to be recorded.
Application Properties - Brushing - Spraying	205.1 205.2	Shall show satisfactory application properties and the dry film shall be free of defects. With the addition of not more than 5% thinners, shall show satisfactory application properties and the dry film shall be free of defects.
Surface Dry Condition	401.1	Maximum 6 hours.
Hard Dry Conditions (Mechanical Thumb Test)	401.6	Maximum 16 hours.
Bend Test	402.0	No cracking or flaking using a 6 mm mandrel after stoving at 100°C for 2 hours and allowing to cool.
Resistance to Water at Room Temperature	455.1	Not more than slight whitening or dulling, and to recover completely in 2 hours.
Colour	Clause 7, Appendix A	Not to be darker than the standard.
Specular Gloss	602.2	≥ 85 units at 60°.
Finish	603.1	Shall have a bright, uniform clear finish free from any visible defects.
Reincorporation after Storage	211.2	To comply with all the preceding requirements after 18 months storage at ambient temperature. In addition, the viscosity shall be within 5% of the initial result.
VOC Content	APAS AP-D181	Refer to APAS document AP-D181 for method and limits. <ul style="list-style-type: none"><li>If the APAS specification is not listed on AP-D181, a declaration of VOC content is <b>still required</b>.</li></ul>



# SPECIFICATION AP-S0055



## ONE PACK EXTERIOR VARNISH

### 9 APPENDIX B

#### Document History

Status: Current  
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Document Version No.:	Date Published:	Summary of Changes:
9	27-08-2021	<ul style="list-style-type: none"><li>• General format change to clause 1, 3.1 and 6.2</li><li>• Updated background information in clause 2</li><li>• Updated SUSMP information</li><li>• Updated APAS website information</li></ul>
8	10-11-2020	<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</li><li>• Inclusion of VOC Content requirement to Table 1 Performance Properties</li><li>• Addition of "People + Product = Protection" to Footer</li></ul>
7	22-04-2003	<ul style="list-style-type: none"><li>• Deleted reference to GPC numbering and incorporated a general format update</li></ul>
6	15-01-2001	<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-V-55)</li></ul>