SPECIFICATION AP-S0201

SOLVENT BORNE TWO PACK PIGMENTED PAVING PAINT FOR INTERIOR CONCRETE

1 SCOPE

A two-pack pigmented solvent borne or solventless finish which may include epoxy, polyurethane, polyester and vinyl ester types, and includes aggregate filled products.

2 BACKGROUND

a) To obtain a broad overview of the Australian Paint Approval Scheme (APAS), refer to APAS document AP-D001.
b) To obtain an overview of restricted ingredients in APAS certified products, refer to APAS document AP-D123.
c) To obtain the current list of APAS participating manufacturers (and suppliers) and resellers, refer to APAS document AP-D152.
d) To obtain an overview of how to participate in the APAS, refer to APAS document AP-D177.
e) 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) A two-pack pigmented solvent borne or solventless finish which may include epoxy, polyurethane, polyester and vinyl ester types, and includes aggregate filled products.
b) Available, typically, in a range of gloss levels and colours.
c) **Sub-class AP-S0201/1:** may be applied to interior concrete floors in one or more coats by brush, roller or spray, to a typical total dry film thickness of 75 - 300μm. Provides a uniformly coloured finish to enhance appearance and provide an abrasive, wear and stain resistant finish. Favoured for domestic, light industrial, showroom and food preparation areas.
d) **Sub-class AP-S0201/2:** may be applied to interior concrete floors in one or more coats by screed, squeegee or trowel. An essentially solventless product, provides a monolithic coating of typical dry film thickness 500 - 3000μm. Provides a uniformly coloured finish to enhance appearance with an extremely hard, abrasion, wear and stain resistant finish. Favoured for workshops, factories and food processing areas subject to severe wear and tear.

3.2 Sub-Classes

a) This specification incorporates the following sub-classes:
   i. **0201/1:** Low Build
   ii. **0201/2:** High Build

3.3 Basis of this Specification

a) This specification is not based on any known standard or specification.
b) Paints approved under this specification do not correspond to any Paint Reference Numbers (PRN) of AS/NZS 2311.

4 REFERENCED DOCUMENTS

a) The following standards are referenced in this document:

   i. **AS/NZS 1580** – Paints and related materials: Methods of test
   ii. **AS/NZS 2311** – Guide to the painting of buildings
   iii. **AS/NZS 3661.1** – Slip resistance of pedestrian surfaces - Requirements

These documents may be purchased through the Reference Standards Australia website: https://www.standards.org.au/

   iv. **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

b) The following APAS documents are referenced in this document:

   i. AP-D001 Rules Governing How APAS® Operates
   ii. AP-D123 Restrictions on Ingredients in Product Formulations
   iii. AP-D152 APAS® Participating Manufacturers and Resellers
   iv. AP-D177 Rules Governing How Product Manufacturers participate in APAS®
   v. AP-D181 Volatile Organic Compounds (VOC) Limits
   vi. 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

a) Binder requirements are not restricted by this specification, but may include epoxy, polyurethane, polyester and vinyl ester types.

5.2 Volatiles

a) Where volatiles are present, they shall typically be comprised of hydrocarbons.
b) For VOC content restrictions, refer to APAS document AP-D181.

5.3 Pigmentation

a) The pigmentation shall be chosen to impart the properties detailed in clause 7, Table 1 below. Some products may contain graded aggregate.

5.4 Colour

a) Products approved under this specification are normally available in a wide range of colours.

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 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 (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 ±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) The manufacturer's Safety Data Sheet (SDS) must be studied closely prior to using the product and complied with during use of the product.
b) Since some of the products covered by this specification contain hydrocarbon solvents, the paint is considered flammable and should be stored away from all sources of heat or ignition.
c) 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) Care should be taken to avoid contact with the skin by the use of protective clothing and barrier cream. All pumping equipment should be adequately earthed. A full-face air fed respirator should be used when spraying.
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.

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7 TABLE 1: PERFORMANCE PROPERTIES

TEST	AS/NZS 1580 METHOD	REQUIREMENTS
Individual Component Testing – To be carried out on <u>both</u> Part A and Part B components		
Preliminary Examination	103.1 211.2	Free from gel, coarse particles, skin and foreign matter. Uniform consistency after manual reincorporation.
Viscosity	214.x	State method and record results. To be within 5% of manufacturer's specification.
Storage Stability (12 Months)	211.2	Shall be readily incorporated to produce a uniform consistency free from lumps, gel and other defects.
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**.
Mixed Product Testing		
Fineness of Grind	204.1	Maximum 50µm (except aggregate filled types).
Non-volatile content by Volume (Volume Solids)	301.2	**0201/1:** Minimum 30%. **0201/2:** Minimum 80%. • Volume solids may be determined theoretically from raw material data except where solid constituents incorporate sealed air voids.
Application Properties	205.1 205.2 205.3 205.4	When thinned, if necessary, and applied to fibrous cement sheet by the manufacturer's recommended method, the coating shall exhibit satisfactory application properties.
Recoating Properties	205.1 205.2 205.3 205.4	When a further coat of test paint is applied to the previous test panel, there shall be no working up of the basecoat and no runs, streaks, sags or excessive roughness or grittiness. The finish shall be uniform in gloss and colour and shall completely obliterate the substrate.
Surface Dry Condition	401.1	When applied to fibrous cement sheet in one coat at the manufacturers recommended spreading rate, the surface dry time shall not exceed 6 hours.
Hard Dry Condition (Mechanical Thumb Test)	401.6	When applied to fibrous cement sheet in one coat at the manufacturers spreading rate, the hard-dry time shall not exceed 24 hours.
Specular Gloss	602.2	By agreement with manufacturer.
Scratch Resistance	403.1	When the coating system is applied to a lightly abraded zincalume steel panel and subjected to a 2500 g load, penetration to the substrate shall not occur within 15 coincident scratches.

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TEST	AS/NZS 1580 METHOD	REQUIREMENTS
Mixed Product Testing (Cont.,)		
Resistance to Impact - Falling Weight Test	406.1	When the coating system applied to concrete is subject to a direct impact of 0.2 joules, there shall be no cracking or dis-bonding of the coating.
Abrasion Resistance - Taber Abrader	403.2	When the coating system is applied to lightly abraded zincalume and subjected to 100 revolutions with a mass of 500 g per wheel using 2½ grade glass paper bonded to Shore A 50-55 Nema wheels, the coating mass loss shall not exceed 100 mg.
Slip Resistance	AS/NZS 3661.1	When required, and with appropriate additions of abrasive inclusions either incorporated in the coating or broadcast over the surface, the coefficient of friction of the cured coating shall not be less than 0.4 in both the wet and dry state.

8 APPENDIX A

Document History

Status: Current
Version: 9
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Document Version No.:	Date Published:	Summary of Changes:
9	10-09-2021	• General format changes • Updated background information in clause 2 • Updated SUSMP information • Updated APAS website information
8	26-11-2020	• Addition of Appendix A 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
7	09-10-2003	• Deleted reference to GPC numbering and incorporated a general format update
6	09-02-2001	• Initiated the second stage of the move to new specification numbering with prominence given to the new number (previously GPC-P-201)