SPECIFICATION AP-S0032

METAL PRIMER

1 SCOPE

A general-purpose priming paint for prepared metal surfaces.

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) An anti-corrosive primer for steel and non-ferrous substrates which have been prepared by hand or mechanical cleaning methods detailed in AS 1627.
b) Depending upon the extent of surface preparation, the primer may be used alone as a one or two coat system or may be top coated with conventional alkyd undercoat and finishing coats. Apply by brush, roller or spray to a dry film thickness of 35 - 50µm per coat. Recoating time minimum 24 hours, maximum 2 months with another coat of primer, alkyd-based undercoat or alkyd topcoat.

3.2 Sub-Classes

a) This specification does not incorporate any sub-class.

3.3 Basis of this Specification

a) This specification is based on AS/NZS 3750.19 (superseding AS 4089).
b) Products approved under this specification comply with Paint Reference Number (PRN) C05 of AS/NZS 2312.
c) APAS specification AP-S0162 is similar but has specific pigmentation requirements and more severe exposure requirements.

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 1627** – Metal finishing – Preparation and pre-treatment of surfaces
iii. **AS/NZS 2312** - Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings
iv. **AS/NZS 3750.19** – Paints for steel structures, Part 19: Metal primer – General purpose

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

v. **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) The binder shall typically consist of alkyd resin, oleoresinous varnish and/or drying oils to impart the properties listed in clause 7, Table 1 below.

5.2 Volatiles

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

5.3 Pigmentation

a) The pigmentation shall consist of appropriate anti-corrosive pigment(s) to impart the properties listed in clause 7, Table 1 below.
b) The primer shall **not** contain lead or chrome-based pigments.

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) 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, the paint is flammable and should be stored away from all sources of heat or ignition.
d) 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.
e) 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.
f) 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.

METAL PRIMER

7 TABLE 1: PERFORMANCE PROPERTIES

TEST	AS/NZS 1580 METHOD	REQUIREMENTS
General Requirements	**AS/NZS 3750.19**	Shall comply with **all** the requirements of clause 5 **Material Requirements** except as amended below. All results shall be reported.
Colour - Visual Comparison	601.1	Approximate match.
Specular Gloss	602.2	Maximum 50 units at 60°.
Reincorporation after Storage	211.2	To comply with the requirements of AS/NZS 3750.19 after **18 months** storage.
Resistance to Corrosion (Salt Droplet Test)	452.2	After exposure for 28 days, scribed test panels shall exhibit the following ratings: General appearance ≤ 1 Visible rusting ≤ 1 Corrosion of underlying metal ≤ 1 Creep from scribed mark/edges ≤ 3 mm
Bend Test	402.1	A tinplate panel coated with test primer at 35-50 μm dry film thickness and allowed to dry for 24 hours, shall show no cracking or adhesion failure when around a 6mm mandrel.
Resistance to Natural Weathering	457.1	To comply with the requirements of AS/NZS 3750.19 after **24 months** at a **coastal marine site.**
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.

8 APPENDIX A

Document History

Status: Current
Version: 9
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Document Version No.:	Date Published:	Summary of Changes:
9	26-08-2021	• General format change to clause 1, 3.3 c), 6.2 • Updated background information in clause 2 • Updated SUSMP information • Updated APAS website information
8	06-11-2020	• 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 (AS 4089 superseded by AS/NZS 3750.19) and website details • Inclusion of VOC Content requirement to Table 1 Performance Properties • Addition of "People + Product = Protection" to Footer
7	07-04-2003	• Deleted reference to GPC numbering and incorporated a general format update
6	12-01-2001	• Initiated the second stage of the move to new specification numbering with prominence given to the new number (previously GPC-P-32)