

AIRDRYING HAMMER FINISH

1 SCOPE

This specification applies to air drying hammer finish coatings for instruments, equipment and vehicle interiors.

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

- Products approved under this specification are air drying coatings intended to be used as decorative topcoats for small instruments and equipment. They are designed to produce a beaten metal style finish upon drying.
- Preferably applied by brush or conventional air spray as a moderately thick wet coat on clean metal. They do not generally require a second coat.
- Approved products achieve their hammer-finish typically through the addition of silicone oils. These oils have the ability to contaminate other coatings and care needs to be taken with all containers, application equipment, rags and wash solvents to eliminate cross-contamination.

3.2 Sub-Classes

- This specification does not incorporate any sub-class.

3.3 Basis of this Specification

- This specification not based on any know standard or specification.
- This product type does not correspond to any coatings referenced in 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 Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings

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 type is not restricted. Of primary importance is the compliance with the technical requirements detailed in clause 7, Table 1 below.

5.2 Volatiles

- The volatile portion is not restricted but is typically comprised of chemical solvents such as hydrocarbons.
- For VOC content restrictions, refer to APAS document AP-D181.

5.3 Pigmentation

- There is no restriction placed on the type of pigment used, with the exception that they shall be non-toxic and anti-corrosive and comply with the requirements of the SUSMP. Of primary importance is the compliance with the technical requirements detailed in clause 7, Table 1 below.

5.4 Colour

- These products are typically only available in a limited selection of colours.



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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 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 $\pm 3\%$ 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) 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) 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.
- c) 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
Wet Paint Testing		
Preliminary Examination	103.1	The product shall be readily reincorporated and shall be free of coarse particles, gels and foreign matter.
Thinner Compatibility	208.1	When mixed with the recommended type and quantity of thinner, there shall be no signs of separation.
Reincorporation after Storage	211.2	The product shall comply with all requirements of Table 1 after 12 months storage at ambient temperature. A sprayed film of the stored sample shall produce a uniform finish typical of the product and equivalent to a film of fresh sample.
Non-volatile Content by Volume (Volume Solids)	301.2	Minimum 35%.
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		
Surface Dry Condition	401.1	Maximum 30 minutes.
Hard Dry Conditions (Mechanical Thumb Test)	401.6	Maximum 16 hours.
Colour	601.1	Approximate match.
Specular Gloss	602.2	> 50 units at 60°.
Finish	603.1	When applied as per the manufacturer's recommendations and air dried for 16 hours, the appearance shall be of uniform gloss, texture and effect with no runs, sags or other non-standard defects.



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8 APPENDIX A

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• 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 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
8	12-06-2009	<ul style="list-style-type: none">• Deleted sub classes 0087/2, 0087/3 and 0087/4 and was reformatted
7	21-04-2003	<ul style="list-style-type: none">• Deleted reference to GPC numbering and incorporated a general format update
6	30-01-2001	<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-87)