**Editorial Note:** This version of this specification deletes reference to GPC numbering and incorporates a general format update. Tests have been added for removing and repainting properties in line with APAS 0048.

APAS Document D188 should be read to obtain a broad overview of the Australian Paint Approval Scheme (APAS).

Manufacturers who wish to participate in APAS within Australia should consult APAS documents D177 (for Australian manufacturers), D178 (for overseas manufacturers) & D180 (for toll manufacturers).

Manufacturers who wish to participate in APAS within their own countries should consult APAS document D175.

APAS approval to this specification may be gained by compliance with the requirements detailed in this specification and those in document D192 “The APAS Product Approval System”.

All APAS Documents may be downloaded from the APAS web site located at:

www.apas.gov.au

**1. Scope**

1.1 **Description** A viscous liquid for stripping two pack epoxy and polyurethane paint films from magnesium, aluminium alloy, steel and cadmium plated steel where the substrate may be susceptible to hydrogen embrittlement.

1.2 **Similar Specifications** RAAF TRS K55, DEF STAN 80-16 and MIL-R-25134.

1.3 **Composition** The product will probably contain methylene chloride, a Schedule 2 product (Australian Uniform Paint Standard). The product will probably also contain a wax, gelling agent and emulsifying agent.

1.4 **Uses** Applied by brush or spray and removed by water rinse.

**Note:** The precautions recommended to be taken during use, as detailed on the material safety data sheet, should be closely observed.

1.5 **Health & Safety** Read the Material Safety Data Sheet for the product before use and comply with the relevant state regulations.

The product 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. Forced air ventilation should be used to ensure adequate air changes.

Care should be taken to avoid contact with the skin by the use of protective clothing and barrier cream. A full face air fed respirator should be used when spraying.

**2. Applicable Documents** Reference is made to:


Australian *Uniform Paint Standard* (Appendix I of issue No.17 onwards of the Standard for the Uniform Scheduling of Drugs & Poisons), available from Australian Government Info stores in all capital cities in Australia.
3. Requirements for Approval

3.1 General requirements
The product and its application for approval shall comply with all applicable requirements of APAS Document D192.

3.2 Technical requirements
The product shall comply with all the requirements of Table 1 below.

Panels required for testing under this specification shall comprise:

(i) mild steel panels typically 150 x 100mm and free from corrosion, prepared in accordance with AS/NZS 1580.105.2.
   The coating system shall comprise 1 coat of alkyd metal primer (complying with APAS 0032) at a dry film thickness of 50µm and topcoated with 2 coats alkyd gloss enamel (complying with APAS 0015) at a dry film thickness of 25 - 35µm per coat with 24 hours between all coats and the complete system allowed to dry for 28 days under the routine conditions of AS/NZS 1580.101.1 before testing.

(ii) aluminium panels prepared and coated as in (i) above except that a coat of etch primer (complying with APAS 0035) shall precede the application of the metal primer.

(iii) timber panels (radiata pine) typically 150 x 150mm which are generally free from imperfections are prepared in accordance with AS/NZS 1580.106.1.
   The coating system shall comprise 1 coat of alkyd timber primer (complying with APAS 0181), 1 coat of alkyd undercoat (complying with APAS 0016) and 1 coat alkyd gloss enamel (complying with APAS 0015).

   Each coat shall be applied at a dry film thickness of 25 - 35µm with 24 hours between all coats and the complete system allowed to dry for 28 days under the routine conditions of AS/NZS 1580.101.1 before testing.

3.3 Safety & environmental requirements
Products intended for sale in Australia shall comply with all the requirements of the Australian Uniform Paint Standard.

Products intended for sale in other countries shall comply with all local OH&S&E requirements.

3.4 Granting of Approval
Subject to compliance with all the requirements of this specification, the level of Approval appropriate to the application shall be given to the system.

4. Requirements for the Quality Control of Production

The manufacturers own quality control schedule of tests and limits shall be allowed subject to the approval of the Executive Officer, APAS.

On request, the Executive Officer, APAS may request the results of the tests for a particular batch and compare these with previous batches.

Density and non-volatile matter by weight (NVM) 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 - form D139 and/or form D140.
5. **Ordering**

Orders shall specify "Paint Remover - Special Purpose to APAS 0049" or the name of the manufacturer’s approved product.

**Appendix 1**

**Removing properties**

The test for removing properties shall be performed as follows:

1. apply the paint remover at the manufacturer’s recommended spreading rate to steel, aluminium and timber test panels that have been prepared in accordance with clause 4.1.

2. allow the panels to stand vertically for 15 minutes and then attempt to remove the paint film and spent paint remover from the surface of the test panels under a stream of tap water using a soft bristle brush.

3. gently remove residual water from the surface of the panels with absorbent paper or cloth and then allow the panels to dry thoroughly under routine conditions for 2 hours before assessing the effectiveness of the paint remover.

**Appendix 2**

**Repainting properties**

The test for repainting properties shall be performed as follows:

1. on completion of the testing detailed in Appendix 1, the steel, aluminium and timber panels shall be repainted using the relevant painting system as described in clause 4.1 utilising the same dry film thicknesses and drying intervals. These panels shall be repainted without any further surface preparation.

2. the surface dry time of the paints applied to these repainted panels shall be assessed using method AS/NZS 1580.401.1.

3. on completion of the 28 day drying period, the adhesion of the coating systems to the various substrates shall be assessed by method AS/NZS 1580.408.2 or 4.

4. the adhesion of the coating systems to the various substrates of a reference set of panels, prepared in accordance with clause 4.1, shall also be assessed using the same method.
**Table 1**

<table>
<thead>
<tr>
<th>TEST</th>
<th>AS/NZS 1580 METHOD</th>
<th>REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preliminary examination</td>
<td>103.1</td>
<td>To be readily reincorporated. Shall be free of coarse particles.</td>
</tr>
<tr>
<td>Paint removing properties</td>
<td>App.1</td>
<td>Within 15 minutes of application of the paint remover, the paint shall essentially be able to be removed with a scraper followed by rinsing in running water. Minimal paint may remain in the grain of timber or in the profile of steel. The grain of the timber panel shall not be raised, nor shall there be any significant staining of the timber, and there shall be no obvious signs of corrosion of either the steel or aluminium panels resulting from the application of the paint remover.</td>
</tr>
<tr>
<td>Repainting after paint removal</td>
<td>App.2</td>
<td>Paint coating systems applied to the panels stripped in &quot;Paint removing properties&quot; above will have drying times and adhesion properties no worse than those of a reference set of panels (prepared as in clause 4.1)</td>
</tr>
</tbody>
</table>