

**DRAFT AMENDMENT
FOR PUBLIC COMMENT**

DATE OF ISSUE: 9 OCTOBER 2020

CLOSING DATE
FOR COMMENTS: 10 DECEMBER 2020

Draft Amendment No. 2 to Singapore Standard SS 494 : 2001 Specification for lead and chromate-free primer for iron and steel substrates

[Submit Comments](#)

THIS DOCUMENT IS SUBJECT TO CHANGE. THE AMENDMENTS SHOULD NOT BE USED AS PART OF THE SINGAPORE STANDARD. TO EXPEDITE DISTRIBUTION, IT IS CIRCULATED AS RECEIVED FROM THE STANDARDS COMMITTEE. EDITING WILL BE UNDERTAKEN AT THE PUBLICATION STAGE. RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTS.

NO REPRODUCTION PERMITTED

Specification for lead and chromate-free primer for iron and steel substrates

AMENDMENT NO. 2

Month/Year

1. Page 8, Table 1 Quantitative requirements of the paint

Replace 'Chromium content' with 'Chromium (VI) content' in the column of Characteristic.

Replace the measurement unit of lead content and chromium (VI) content and their maximum requirement values as shown below:

| Characteristic | Requirement | |
|--|-------------|---------|
| | Minimum | Maximum |
| Lead content, ppm (mg/kg) of dried paint film | - | 100 |
| Chromium (VI) content, ppm (mg/kg) of dried paint film | - | 100 |

2. Page 9, 4.4.7 Resistance to cyclic fog test (Prohesion)

Replace 'ASTM D714' and 'ASTM D610' with 'SS 5 : Part H2' and 'SS 5 : Part H3' respectively.

3. Page 10, Table 2 Test methods

Replace 'Chromium content' with 'Chromium (VI) content' in the column of Test.

Replace the test method of chromium (VI) content and through-dry time as shown below:

| Test | Method of test (Refer to SS 5 unless otherwise specified) |
|-----------------------|--|
| Chromium (VI) content | IEC 62321-7-2 |
| Through-dry time | Part D5 |

4. Page 11, Standards referred to:

Replace with the following:

Standards referred to:

For undated references, the latest edition of the referenced document (including any amendments) applies.

| | |
|---------------|---|
| ASTM G85 | Standard practice for modified salt spray (fog) testing |
| BS 5252F | Colour matching fan |
| IEC 62321-7-2 | Determination of certain substances in electrotechnical products - Part 7-2: Hexavalent chromium - Determination of hexavalent chromium (Cr(VI)) in polymers and electronics by the colorimetric method |
| SS 5 | Methods of test for paints, varnishes and related materials |
| | Part A1 Sampling |

Singapore Standard SS 494 : 2001
Amendment No. 2

| | |
|----------|--|
| Part A2 | Examination and preparation of samples for testing |
| Part A3 | Standard panels for testing |
| Part B2 | Determination of non-volatile matter content |
| Part B3 | Determination of water by the Dean and Stark method |
| Part B4 | Condition in container |
| Part B5 | Skimming (partially filled container) |
| Part B6 | Storage stability (filled container) |
| Part B7 | Density |
| Part B9 | Brushing properties |
| Part B12 | Consistency of paints using the Stormer viscometer |
| Part B13 | Fineness of grind |
| Part B14 | Pigment content (centrifuge) |
| Part B15 | Determination of flash point – Closed cup equilibrium method |
| Part C6 | Determination of low concentrations of lead, cadmium and cobalt in paint by atomic absorption spectroscopy |
| Part D2 | Surface-drying test (ballotini method) |
| Part D5 | Determination of through-dry state and through-dry time |
| Part E2 | Determination of contrast ratio (opacity) of light-coloured paints at a fixed spreading rate |
| Part E3 | Visual comparison of the colour of paints |
| Part F1 | Bend test (cylindrical mandrel) |
| Part F2 | Scratch test |
| Part H2 | Assessment of degree of blistering |
| Part H3 | Assessment of degree of rusting |

NOTE –

- 1 IEC 62321-7-2 is used for the evaluation of Cr(VI) content in electrotechnical products and can also be used for coatings.