



P.O. BOX 319  
 BEDFORDVIEW  
 2008  
 TEL: 011 825 6701  
 FAX: 086 503 0745  
 ACCOUNTS: 011 873 9122  
 EMAIL: [admin@teemplating.co.za](mailto:admin@teemplating.co.za)  
 WEB: [www.teemplating.co.za](http://www.teemplating.co.za)  
 SKYPE NO: team.plating.works

<b>TEAM SATP.E/Plate</b>	<b><u>SPECIFICATION</u> – ELECTROPLATING / GALVANIZING AND POST PLATING TREATMENT</b> Effective date: 14 <sup>th</sup> March 2017 all previous issues to be destroyed.
<p><b>1.0 SCOPE</b></p> <p>This Standard describes a method for specifying electroplated coatings and post plating treatments on Iron, Steel, brass and copper components for corrosion protection and/or decorative purposes.</p> <p><b>2.0 DEFINITIONS</b></p> <p><b>2.1 MINIMUM AVERAGE THICKNESS</b> Average of the readings taken on different areas of the plated article that is big enough for testing.</p> <p><b>2.2 LOCAL THICKNESS</b> The mean of the thickness measurements, of which a specified number is made within a reference area.</p> <p><b>2.3 MINIMUM LOCAL THICKNESS</b> The lowest value of the local thickness found on the significant surface of a single article.</p> <p><b>2.4 REFERENCE AREA</b> The area within which a specified number of single measurements is required to be made.</p> <p><b>2.5 SIGNIFICANT SURFACE</b> The part of the article covered or to be covered by the coating and for which the coating is essential for serviceability and/or appearance.</p> <p><b>3.0 Information to be supplied by the purchaser to the electroplater</b> The following are to be written on an order by the purchaser and handed to the electroplater together with the articles to be plated.</p> <p>3.1 The standard name: SATP.E/Plate 2014            3.2 Metal Plating codes and thicknesses (4)            3.3 Code of the chromate film required (5)            3.4 The significant surface (if any) indicated by drawing or by suitably marked samples            3.5 Nature and surface condition of basis material. (6)            3.6 Electroplating techniques. Barrel, jiggling etc</p>	

- 3.7 Any surface appearance defects acceptable
- 3.8 Any requirements for heat treatment before or after electroplating.
- 3.9 The conformance to hours before white and red rust.
- 3.10 The sampling procedure to be used, any special inspection required and acceptance levels.(5)
- 3.11 If appropriate, the area to be used for the determination of local thickness on small articles of complex shape and the method of measuring such an area.
- 3.12 The location of areas (if applicable) of the surface that can be used for connecting parts to jigs and where marks are acceptable

#### **4.0 Metal Plating codes and thicknesses**

The following will indicate the different codes to be used when requesting the metal to be plated and the individual thickness of each metal

##### **Metal codes:**

**Zn** - Zinc

**Cd** - Cadmium

**Cu** - Copper

**Brass**-Brass ( Indicate Bright or Dull)

**Ni** - Nickel

**Sn**-Tin

##### **Thickness:**

The thickness of each layer will be indicated as a minimum average thickness (unless otherwise specified) e.g. Zinc at 15um is Zn15, and Copper Nickel layer is Cu4Ni6

**NOTE: In the event where one of our Trademarked and Registered processes are required, The following code will be used:**

##### **MegaZinc**

**MegaZinc A**

**MegaZinc B**

**MegaZinc C**

##### **EnviroPass**

**EnviroPass**

#### **5.0 Code of Chromate film required**

The following will indicate the different codes to be used when requesting different chromate finishes.

**CH1 - HEXAVALENT BLUE**

- Intense blue, blue purple, bluish to iridescent bluish, clear

**CH2 - HEXAVALENT YELLOW**

- Yellowish tinge to iridescent yellowish brown

**CH3 – HEXAVALENT OLIVE DRAB**

- Olive green to olive brown

**CH4 – HEXAVALENT BLACK**

- Brownish Black to iridescent black

**CT1 – TRIVALENT BLUE**

**CT2 – TRIVALENT YELLOW**

CT3 – TRIVALENT HIGH BUILD (ENVIROPASS)

- Slightly iridescent, multicolour finish (hues of yellow, green, purple and pink)

CT4 – TRIVALENT BLACK

## 6.0 Basis material

4.1 This Specification does not specify the surface condition of the basis material.

4.2 It is to be noted that the roughness could effect the surface finish appearance and/or serviceability.

## 7.0 SAMPLING & TESTING (IF REQUIRED)

7.1 Random samples of the articles will be inspected by the plater for conformance to the requirements of this specification by the following methods:

7.1.1 Visually for appearance

7.1.2 Thickness Testing by means of magnetic induction or the eddy current method. The thickness can be affected by the size, shape or material that is not suitable for the test. (Only carried out on request)

7.1.3 Salt spray Testing is available on request and all costs will be settled by the purchaser BEFORE the plated batches leave the premises of the electroplater.

Compliance by the samples will classify the batch from which they were taken as conforming or non-conforming to the requirements.

7.2 All further required testing will be carried out for / by the purchaser at his expense before the plated batches leave the premises of the electroplater after which the onus of satisfactory performance by the batches reverts back to the purchaser.

## 8.0 CERTIFICATION

8.1 Certification that the requirements of this specification have been met will be supplied by the Electro-Plater on condition that such a request is clearly stated on the purchasing order accompanying the articles subject to clause 7 above.

## 9.0 NOTES

9.1 Electro deposition does produce various degrees of hydrogen embrittlement in hardened steel during the coating process.

9.2 Testing for embrittlement and corrosion resistance require a 48 hour waiting period subsequent to plating.

9.3 The effectiveness of the coating will be compromised by abnormal environmental conditions, incorrect packaging and handling prior to and during installation.

9.4 While every effort is made by the plater to minimise loss and destruction of the articles for plating no responsibility will be taken by the plater should the goods, during the normal process as mentioned above, be rendered unsuitable for the purpose for which it was manufactured.

9.5 Due to different component geometry plating thicknesses might differ in excess of minimum.

9.6 This Specification captures the main principles of the following International Specifications: BS 1706 , Din 267 part 9, Din 50960, 50961, 50962, 50965, 50967, 50968, 50942(zinc phosphate)

