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Electroplated coatings of cadmium on iron or steel

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metal plating, corrosion protection

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Documents

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H 8611 : 1999

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law. Consequently JIS H 8611:1993 is replaced with JIS H 8611:1999.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

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Electroplated coatings of cadmium on iron or steel

Introduction This Japanese Industrial Standard has been prepared based on the corresponding International Standard, which is listed in Remarks of 1 **Scope**, without any modification of technical content on the corresponding parts, but some items, which are not specified in the corresponding International Standard, are supplemented in this Japanese Industrial Standard.

1 Scope This Japanese Industrial Standard specifies electroplated coatings (hereafter referred to as "coatings") of cadmium on the significant surface of iron or steel basis metal for the purpose of preventing corrosion.

Remarks: The International Standard corresponding to this Standard is as follows.

ISO 2082:1986 *Metallic coatings — Electroplated coatings of cadmium on iron or steel*

- Informative references**
- 1 When chromate conversion coatings are applied for the purpose of preventing corrosion, the procedures shall conform to **JIS H 8625**.
 - 2 When this electroplating is carried out, the conditions and circumstances for working shall be fully considered.

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards indicated below shall be applied.

JIS H 0400 *Glossary of terms used in electroplating*

JIS H 0404 *Graphical symbol for electroplated coating*

JIS H 8501 *Methods of thickness test for metallic coatings*

JIS H 8504 *Methods of adhesion test for metallic coatings*

JIS H 8625 *Chromate conversion coatings on electroplated zinc and cadmium coatings*

JIS Z 9031 *Random sampling methods*

3 Definitions For the purpose of this Standard, the definitions in **JIS H 0400** apply, and the rest of the terms are as follows.

- a) **significant surface** The surface of the parts which is plated or to be plated and for which the coating is essential for performance and appearance.
- b) **local thickness** The average of measurements carried out specified times on the reference area.
- c) **minimum local thickness** The minimum value of local thicknesses which have been confirmed on the significant surface of the part.

4 Grade, symbols and service environment

4.1 Grade and symbols

- a) **Grade** The grades of coatings shall be classified into 6 grades according to the minimum thickness of coating as shown in Table 1.
- b) **Symbols** The symbols used for coatings shall follow **JIS H 0404**.

4.2 Service environment, condition of service environment, and symbol
The service environment, condition of service environment, and symbol shall follow **JIS H 0404**.

Informative reference: When electroplated articles are used for corrosion prevention, the service environments shall be classified as shown in Informative reference Table 1 and indicated with symbols.

Table 1 Grade and minimum thickness of coating

Unit: μm

Grade	Minimum thickness of coating	Informative reference
		Service condition number of ISO
Grade 1	2	—
Grade 2	5	1
Grade 3	8	2
Grade 4	12	3
Grade 5	20	3
Grade 6	25	4

Informative reference Table 1 Service environment, condition of service environment, and symbols

Service environment	Condition of service environment	Symbols	Informative reference	
			Service condition number of ISO	Example
D	Ordinary indoor environment	D	1	Residence, office, etc.
C	Indoor environment with high humidity	C	2	Bath room, kitchen, etc.
B	Ordinary outdoor environment	B	3	Field, residence area, etc.
A	Outdoor environment with high corrosiveness	A	4	Beach, industrial area, etc.

5 Quality

5.1 Appearance of coating When being tested according to 9.2, the significant surface of coatings shall be free from such defects as roughness, burnt deposits, cracks, pits, exposures of basis metal, and from such signs of inferior adhesiveness as blisters and peeling, and stains, flaws, or others.