

ICS 25.220.40
CCS A 29



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 3138-1982

Replacing GB/T 3138-1995

**Metallic and other inorganic coatings -- Surface treatment,
metallic and other inorganic coatings -- Vocabulary
(English Translation)**

Issued on: May 15, 2015

Implemented on: January 1, 2016

Issued by: Standardization Administration of China

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard replaces GB/T 3138-1995 "metal plating and chemical treatment and related process", and GB/T 3138-1995 phase Ratio, the main technical changes are as follows.

- Changing the name of the standard;
- Increased introduction;
- Increasing the general type of surface treatment (see Chapter 2);
- Modify the terms of the order, no longer arranged by category.

This standard uses the translation method identical with ISO 2080:2008 "metals and other inorganic coatings - Surface treatment, metallic and other inorganic Overburden vocabulary. " this standard made the following editorial changes.

- For ease of use, the standard name to "metals and other inorganic coatings - Surface treatment The term";
- Introduction modified to conform to our standards.

The standard proposed by China Machinery Industry Federation.

This standard layer Standardization Technical Committee (SAC/TC57) administered by the National Metal and non-metal cover.

This standard was drafted. Wuhan Institute of Material Protection, Nanhai District of Foshan City, Standardization Research and Development Center, Wuhan material protection plating technology Productivity Promotion Center, Wuhan Hong McNair Technology Co., Ltd., Chengdu Industrial Co., Ltd. noble.

Introduction

Terms and definitions of the criteria listed in electroplating and other surface treatment processes. If a process has a different classification, then the related term is listed in a primary term under, such as. "plating", "electrodeposition", "sand", "clean", "Anodizing" is

Main terminology.

This standard does not include basic terminology and definitions corrosion and electrochemical corrosion science and technology, the terms and definitions set forth in GB/T 10123. This standard does not include the chemical, physical, manual or dictionary can be found in the chemical, electrochemical or physical basis and terminology definition.

Metals and other inorganic coatings the term surface treatment

1 Scope

This standard provides a general type of surface treatment and the terms and definitions relating thereto. The standard focus on the field of metal processing surface the practical application of management techniques. This standard does not include enamels and vitreous enamel, thermal spraying, hot-dip galvanizing terms and definitions of these terms and definitions have been received Recorded in the Glossary or are developing relevant vocabulary. In most cases, this standard does not include surface treatment and other technologies collar Field has the same meaning of basic terms, it does not include chemical, physical, manual and basic terminology dictionary definition.

Two general types of surface treatment 2.1 Plating chemicalplating Metallic coatings by chemical rather than electrolysis.

2.1.1

Autocatalytic plating Electroless plating (abandoned use) Deposited metal or alloy coating layer is formed by depositing a metal catalytic reduction.

2.1.2

Contacts plated contactplating in the internal current deposition of the metal plated metal ions in the solution of the workpiece (3.202) contain remains in contact with another metal, formed by Overburden.

2.1.3

Dip immersioncoating; immersionplate (US) Replacement of a metal from the solution to get out of another metal metallic coatings. Column such as. $\text{Fe} \text{ Cu}^{2+} \rightarrow \text{Cu} \text{ Fe}^{2+}$.

Chemical vapor deposition chemicalvapourdeposition (GB); chemicalvapordeposition (US) CVD in heating gas, reducing condensation layer is deposited on the substrate is formed by a chemical reaction or steam.

Conversion conversiontreatment by chemical or electrochemical film formation process (usually referred to as conversion coating), comprising a base metal element and solution anionic compounds.

Example. aluminum, zinc chromate film (often mistakenly referred to as a passivation film);

steel oxide film and the phosphate film.

NOTE: anodizing (3.8) although satisfying the above definition, but usually not called conversion coating or chromate treatment.

Diffusion treatment Procedure by other metal or nonmetal substrate (3.185) metal surface diffusion superficial film (usually called a diffusion coating).

Example. diffusion process by combining two or more different alloy plating layer is formed.

NOTE: electroplating (2.5) after heat treatment (3.111), such as hydrogen drive, are not usually considered diffusion process.