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

GB/T 11086-2013

Replacing GB/T 11086-1989

Copper and copper alloys -- Terms and definitions

铜及铜合金术语

(English Translation)

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Foreword

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

This standard replaces GB/T 11086-1989 "copper and copper alloys term." This standard compared with GB/T 11086-1989, the main changes as follows.

- Modify the standard structure of the original standards.
- General terms and definitions, increasing the free cutting alloy, copper and copper alloy regeneration definitions of terms;
- Unrefined copper added definitions of terms anode copper to matte, blister copper, the definition of black copper was modified;
- Deleted refined copper in the copper, oxygen-free copper, definitions of terms deoxidized copper, tough pitch copper;
- Materials increased copper and copper alloy portion, which increases the copper, oxygen-free copper, deoxidized copper, tough pitch copper, micro-alloyed, dispersion Copper, alloy, high definition of the term;
- Brass (an alloy of copper and zinc), bronze, copper-nickel alloy (copper-nickel alloy) definitions of terms were modified, deleted the term special copper alloys definition;
- Part of the original cast into standard unprocessed products;
- Unprocessed products increased copper cathode, Definition plaster mold castings;

- Added processed products seamless pipe, welded pipe, coil, inner grooved tube, finned tube, plastic coated copper tube, sheet, plate intraoperative Definition of Terms;
- Of pipe, bar, wire definitions were modified;
- Of sheet, strip, foil thickness to define the scope has been modified;
- The refining method into the production process, the EW modify electrolytic deposition;
- Production process increases the casting, continuous casting, semi-continuous casting, sand casting, die casting (die casting), centrifugal casting, Die casting, low pressure casting, investment casting, die casting plaster casting methods to define these terms;
- Production process increases the drawing, extrusion, rolling, welding, forging, continuous extrusion processing method definitions of these terms;
- Hot working, cold working definitions of the terms were modified;
- In the heat treatment to remove the aging, artificial aging, natural aging, solution treatment and artificial aging (complete heat treatment), quenching technique language. Increase the recrystallization annealing, softening annealing, metastable heat treatment, quench hardening, tempering, quenching and tempering treatment, strengthening ordered online Yu Terms and definitions thermal quenching;
- Definition of annealing, precipitation heat treatment has been modified.

This revised standard adopts ISO 197-1. 1983 "Copper and copper alloys - Terms and definitions - Part 1. Materials", ISO 197-2. 1983 "Copper and copper alloys - Terms and definitions - Part 2. Not processing products (Refinery shapes)", ISO 197-3. 1983 "Copper and copper alloys - Terms and definitions - Part 3. processed products ", ISO 197-4. 1983 "Copper and copper alloys - Terms and definitions - Part 4. Casting " ISO 197-5. 1980 "Copper and copper alloys - Terms and definitions - Part 5. processing and treatment." This standard and ISO 197-1. 1983, ISO 197-2. 1983, ISO 197-3. 1983, ISO 197-4. 1983, ISO 197-5. 1980 to modify the degree of consistency. It is easier than Representing, in information listed in the appendix of this standard clauses and controls list corresponding chapter of the international standards.

The standard in the use of international standards, has been modified, a single vertical line identifies these differences in their terms involved margins Place. This standard and ISO 197-1. 1983, ISO 197-2. 1983, ISO 197-3. 1983, ISO 197-4. 1983, ISO 197-5. 1980 Phase Ratio, the main differences are as follows.

- Changes in the structure of the standard ISO standard will change some terms to apply to our standard formulation;
- General terms and definitions, increasing the base metal element, cutting alloys, copper and copper alloy regeneration definitions of terms;

- Unrefined copper added definitions of terms anode copper to matte, blister copper, the definition of black copper was modified;
- Removed in refined copper electrolytic copper, oxygen-free copper, definitions of terms deoxidized copper, tough pitch copper;
- Classification of copper and copper alloys were changed, removed copper, alloy unrefined definitions of terms, an increase of copper, oxygen-free copper, Deoxidized copper, tough pitch copper, micro-alloyed, diffusion of copper, alloy, high definition of the term;
- Brass (an alloy of copper and zinc), bronze, copper-nickel alloy (copper-nickel alloy) definitions of terms have been changed, removed the term special copper alloys definition;
- The ISO standard part into the casting unprocessed products;
- Unprocessed products increased Definition plaster mold castings;
- Added processed products seamless pipe, welded pipe, coil, inner grooved tube, finned tube, plastic coated copper tube, sheet, plate intraoperative Definition of Terms;
- Of pipe, bar, wire rod were defined change;
- Of sheet, strip, foil thickness defining the scope of the change;
- The refining method into the production process;
- Production process increases the casting, continuous casting, semi-continuous casting, sand casting, die casting (die casting), centrifugal casting, Die casting, low pressure casting, investment casting, die casting plaster casting methods to define these terms;
- Production process increases the drawing, extrusion, rolling, welding, forging, continuous extrusion processing method definitions of these terms;
- Definition of thermal processing, cold were changes;
- Removed aging, artificial aging, natural aging, solution treatment and artificial aging (complete heat treatment) in the heat treatment, quenching technique language. Increase the recrystallization annealing, softening annealing, metastable heat treatment, quench hardening, tempering, quenching and tempering treatment, strengthening ordered online Yu Terms and definitions thermal quenching;
- Definition of annealing, precipitation heat treatment were changed.

This standard by the national non-ferrous metals Standardization Technical Committee (SAC/TC243) centralized.

1 Scope

This standard specifies the copper and copper alloy materials, unprocessed products, the terms and definitions of processed products, production methods and heat treatment methods.

This standard applies to copper and copper alloy products.

2.1 General terms and definitions

2.1.1

Alloy alloy

By the matrix metal elements and alloys containing metallic elements and impurities in the material.

2.1.2

Base metal element basicmetalicelement Quality alloy metal dominant element.

2.1.3

Alloying elements alloyingelement for the metal has certain characteristics, added to the base metal or non-metallic element or metal element retained in the metals.

2.1.4

Impurity

Present in the metal, but not intentionally added or retained metal element or non-metallic elements.

2.1.5

Processing (deformation) alloy wroughtalloy Mainly used by heat, cold plastic deformation of the alloy production and processing of products.

2.1.6

Cast alloy castingalloy Mainly used in the production of alloy castings.

2.1.7

Master alloys masteralloy as an additive material added to the molten metal, for regulating or controlling the chemical composition of the alloy.

2.1.8

Heat-treatable (strengthened) alloy heat-treatablealloy the alloy is reinforced by appropriate heat treatment.