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

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**Aluminium and aluminium alloys - Terms and definitions - Part  
4: Aluminium scrap**

铝及铝合金术语 第4部分：回收铝

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### Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part

1. Structure and Drafting Rules of Standardization Documents" drafted. This document is part 4 of GB/T 8005 "Terminology of Aluminium and Aluminium Alloys". GB/T 8005 has released the following parts.

- 1. Products and processing technology;
- 2. Chemical analysis;
- 3. Surface treatment;

4. Recycled aluminium. Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents. This document is proposed by China Nonferrous Metals Industry Association. This document is under the jurisdiction of the National Nonferrous Metals Standardization Technical Committee (SAC/TC243). This document was drafted by: Shandong Nanshan Aluminum Co., Ltd., Industrial Analysis and Testing Center of Guangdong Academy of Sciences, Shandong Innovative Metals Division Technology Co., Ltd., Nonferrous Metal Technology and Economic Research Institute Co., Ltd., Huangshi Dongchu Aluminum Processing Technology Research Institute Co., Ltd., Zhaoqing City Dazheng Aluminum Co., Ltd., Zhaoqing Nandu Recycling Aluminum Co., Ltd., Sihui Huihuang Metal Products Co., Ltd., Sichuan Samsung New Material Technology Co., Ltd., Northeast Light Alloy Co., Ltd., Southwest Aluminum (Group) Co., Ltd., Hebei Xinli Nonferrous Metals Group have Co., Ltd., Tianjin Xinyilong Technology Co., Ltd. The main drafters of this document. Wu Xinfeng, Ge Lixin, Cheng Zhiyuan, Zhan Hao, Zhao Xiaoguang, Li Zhigang, Cao Qiuhua, Liu Jun, Zhou Lizhi, Wang Mingfeng, Wang Zheng, Ma Yue, Du Heng'an, Zhan Shifen, Ge Sujing, Xiang Jiafa, Lu Xiaojun, Pan Juncheng, Yu Quanhe, Yu Fang, Shi Dandan.

Due to their excellent comprehensive properties, aluminum and aluminum alloys are widely used in transportation, architectural decoration, machinery manufacturing, packaging and printing, etc. Excellent processing properties ensure that aluminum and aluminum

alloys can be produced by casting, forging, rolling, punching, pressing and other methods to produce plates, strips, foils, tubes, bars, profiles, and wires. Aluminum and aluminum alloys are currently the preferred materials for green, environmental protection and lightweight. Continued strong demand in aluminum and aluminum alloy applications With the continuous expansion of the scope of application and application, the technology update cycle is significantly shortened, the variety of products continues to increase, and nouns and terms emerge in an endless stream. GB/T 8005 aluminum and aluminum alloy terminology series standards aim to standardize aluminum and aluminum alloys (product and processing technology, chemical analysis, surface treatment management, recycling) terms to facilitate the trade of aluminum and aluminum alloy products, consisting of four parts.

1.Products and processing technology;

2.Chemical analysis;

3.Surface treatment;

4.Recycled aluminium. In 1987, my country issued GB/T 8005-1987 "Terminology of Aluminum and Aluminum Alloy" for the first time, which stipulated Terms and definitions for mechanically processed products, processes and treatments..2008, with reference to ISO 3134.1985 and EN12258-1.1998 published GB/T 8005.1-2008 "Terminology of aluminum and aluminum alloys - Part

1.Products and processing technology"; refer to ISO 7583.1986 release GB/T 8005.3-2008 "Terminology of aluminum and aluminum alloys - Part

3.Surface treatment". In.2011, modified to adopt EN12258-2. In.2004, GB/T 8005.2-2011 "Terminology of Aluminum and Aluminum Alloys Part

2.Chemical Analysis" was released..2019, refer to EN12258- 1.2012 released GB/T 8005.1-2019 "Terminology of Aluminum and Aluminum Alloys Part

## 1 Scope

Part 4 of China's national terminology series for aluminium, covering aluminium scrap. Recycling aluminium takes about five per cent of the energy of smelting it from ore, which makes secondary aluminium one of the genuinely large decarbonisation levers available to industry - and the constraint on it is not technology but sorting. Aluminium alloys are not interchangeable: a wrought alloy contaminated with a casting alloy's silicon can no longer be rolled, and iron picked up from steel attachments is impossible to remove and downgrades every subsequent melt permanently. So scrap is traded in defined grades that describe what it is and what it may contain, and those grade names are the terminology this part fixes. Without them a scrap contract is a guess. This document defines the terms for recycled aluminium - sorted scrap used for secondary aluminium and aluminium alloys,

which may be contaminated or mixed with non-aluminium material - and applies to recovery and recycling in the smelting, wrought, cast alloy and aluminium powder industries.

This document defines recycled aluminium (aluminium scrap recovered after sorting, used for secondary aluminium and aluminium alloys, which may be contaminated or mixed with non-aluminium materials material) terms and definitions. This document is applicable to aluminum recovery and recycling in electrolytic aluminum industry, deformed aluminum and aluminum alloy industry, cast aluminum alloy industry, and aluminum powder industry.

## 2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 38472 Recycled Casting Aluminum Alloy Raw Materials

GB/T 40382 Recycled deformed aluminum alloy raw materials

GB/T 40386 Recycled pure aluminum raw materials

## 3 Materials

3.1 aluminummaterialaluminiummaterial A general term for pure aluminum or aluminum alloy materials.

3.2 non-aluminum material foreignmaterial A general term for inclusions and non-aluminum metals.

3.3 iron-based material freeiron Magnetized or non-magnetized ferrous metals.

3.4 Inclusions inerts It will neither significantly change the chemical composition of the material in the molten state, nor will it lead to components that increase the content of aluminum and aluminum alloys in the material.

Note. Including wood, textile, plastic, glass, stone, paper, sand, rubber, sludge, oil, crystalline salt, fiber powder, dry paint ink and water, oil and other fluids, excluding package contents and other substances to be used during transportation.

3.5 contaminant If not properly monitored and managed, it can have a negative impact on the quality of recycled aluminium or lead to hazards in the recycling process 's material.