UDC 669.71-41 : 66.014 : 001.3 Ref. No. : ISO/R 115-1968 (E)

### ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

# ISO RECOMMENDATION R 115

## CLASSIFICATION AND COMPOSITION OF UNALLOYED ALUMINIUM INGOTS FOR REMELTING

2nd EDITION March 1968

This second edition supersedes the first edition

#### COPYRIGHT RESERVED

The copyright of ISO Recommendations and ISO Standards belongs to ISO Member Bodies. Reproduction of these documents, in any country, may be authorized therefore only by the national standards organization of that country, being a member of ISO.

For each individual country the only valid standard is the national standard of that country.

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

#### **BRIEF HISTORY**

The ISO Recommendation R 115, Classification and composition of remelt ingots and pigs of unalloyed aluminium, was drawn up by Technical Committee ISO/TC 79, Light metals and their alloys, the Secretariat of which is held by the Association Française de Normalisation (AFNOR).

Work on this question by the Technical Committee began in 1955 and led, in 1957, to the adoption of a Draft ISO Recommendation.

In January 1958, this Draft ISO Recommendation (No. 202) was circulated to all the ISO Member Bodies for enquiry. It was approved by 25 Member Bodies and disapproved by 2 Member Bodies.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council which decided, in July 1959, to accept it as an ISO RECOMMENDATION.

#### BRIEF HISTORY CONCERNING THE 2nd EDITION

Working Group ISO/TC 79/WG 2 was entrusted, in 1964, by the Secretariat of Technical Committee ISO/TC 79, Light metals and their alloys, with the study of the revision of ISO Recommendation R 115-1959. This work led, in 1966, to the adoption of a Draft Revision.

In August 1966, this Draft Revision (No. 1065) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies:

Australia Switzerland India Austria Japan Thailand Belgium Korea, Rep. of Turkey Brazil Netherlands U.A.R. Canada Norway United Kingdom Chile Poland U.S.A. Czechoslovakia South Africa, U.S.S.R. France Rep. of Yugoslavia Germany Spain Hungary Sweden

One Member Body opposed the approval of the Draft:

#### Italy

The new title, Classification and composition of unalloyed aluminium ingots for remelting, supersedes the title of the first edition: Classification and composition of remelt ingots and pigs of unalloyed aluminium; some amendments were made to the text.

The Draft Revision of ISO Recommendation R 115-1959 was then submitted by correspondence to the ISO Council which decided, in March 1968, to accept it.

The present edition (2nd edition) supersedes the first edition of ISO Recommendation R 115-1959.

## CLASSIFICATION AND COMPOSITION OF UNALLOYED ALUMINIUM INGOTS FOR REMELTING

#### 1. SCOPE

This ISO Recommendation relates to the classification and composition of ingots for remelting of primary and secondary unalloyed aluminium, excluding refined aluminium.

Ingots for remelting are classified according to their type (primary or secondary aluminium) and graded according to their composition.

#### 2. REQUIREMENTS

In all cases the type and grade should be agreed between the purchaser and the vendor and stated on delivery.

#### 3. CLASSIFICATION

The type is designated by the terms primary, secondary and refined aluminium which are defined hereafter.

- 3.1 The term *primary* applies to metal extracted by reduction from or by decomposition of an aluminium compound and which has not been subjected to any fabricating other than casting into pigs or ingots.
  - Scrap from the ingot producer's own operations, which arises directly from the casting or working of primary unalloyed ingots, may be incorporated in primary melts without modifying the character of primary melts, provided that the identity of the scrap metal is fully established and maintained, and provided that no metallic impurities foreign to the producer's primary unalloyed aluminium operation are a possible cause of contamination.
- 3.2 The term secondary applies to metal obtained by the recovery and treatment of metal that has been submitted to at least one fabricating process by casting or working and does not conform to the definition of primary or refined aluminium.
- 3.3 The term refined aluminium applies to metal of very high purity (conventional aluminium content: 99.95 % and more) which is obtained by special metallurgical treatments. This metal will be the subject of another ISO Recommendation.

#### 4. COMPOSITION

4.1 The conventional aluminium content, expressed to two decimal places, is the difference between 100 % and the sum of all metallic impurities present in amount equal to or greater than 0.010 %, the value for each metallic impurity being expressed to two decimal places before determining the sum.