
INTERNATIONAL STANDARD



3815

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Zinc and zinc alloys — Spectrographic analysis

Zinc et alliages de zinc — Analyse spectrale d'émission

First edition — 1976-09-30

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3815 was drawn up by Technical Committee ISO/TC 18, *Zinc and zinc alloys*, and was circulated to the Member Bodies in June 1975.

It has been approved by the Member Bodies of the following countries :

Australia	Germany	South Africa, Rep. of
Austria	India	Spain
Belgium	Ireland	Turkey
Brazil	Italy	United Kingdom
Canada	Japan	U.S.S.R.
Czechoslovakia	Mexico	Yugoslavia
Egypt, Arab Rep. of	Norway	
France	Poland	

No Member Body expressed disapproval of the document.

Zinc and zinc alloys — Spectrographic analysis

0 INTRODUCTION

As spectrographic analysis methods are coming more and more into general use, it has become necessary to define their principles of application.

In the case of the present International Standard and after preliminary agreement between the interested parties, the determinations may be performed by emission spectroscopy, provided that samples with known composition are available for the element considered. In the absence of such an agreement, other standardized methods only are applicable.

1 SCOPE AND FIELD OF APPLICATION

1.1 This International Standard specifies the objective criteria which make it possible to assess the value of the results obtained in each particular case. It is not intended to prescribe a type of apparatus or a procedure for converting the instrument response to concentration units because of the broad range of equipment available and the difficulty of completely specifying all working conditions in a spectrographic installation.

1.2 Irrespective of the test procedure used, it is essential that it should refer to standard samples¹⁾ guaranteed by official bodies or to other standard samples accepted by the interested parties.

1.3 This International Standard applies to the types of zinc and to the zinc alloys specified in ISO/R 301 and ISO/R 752 for the elements and the contents mentioned in those two documents, provided that standard samples are available.

1.4 The spectrographic analysis, as described in this International Standard, shall be carried out on solid metallic samples.

2 REFERENCES

ISO/R 301, *Zinc alloy ingots*.

ISO/R 752, *Zinc ingots*.

3 APPARATUS

Any complete set of equipment for emission spectrographic analysis, either photographic or photoelectric, is acceptable, provided that it is sufficiently sensitive.

It is recommended that an arc discharge should be used for the determination of impurities and a spark discharge for the determination of alloying elements.

The wavelengths used should generally be between 200 and 520 nm.

4 SAMPLES

4.1 The standard samples and the test samples shall have approximately the same structure, and shall have dimensions and shape as similar as possible. The surfaces shall be finished in the same manner.

4.2 For plotting the calibration curve, standard samples with a composition corresponding to the composition of the test sample shall be used.

1) See the annex.