
**Aluminium oxide used for the production
of primary aluminium — Particle size
analysis for the range 45 μm to 150 μm —
Method using electroformed sieves**

*Oxyde d'aluminium utilisé pour la production d'aluminium primaire —
Analyse granulométrique dans la gamme 45 μm à 150 μm — Méthode
par emploi de tamis électroformés*



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

This document is a preview generated by EVS

© ISO 2005

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 2926 was prepared by Technical Committee ISO/TC 226, *Materials for the production of primary aluminium*.

This second edition cancels and replaces the first edition (ISO 2926:1974), which has been technically revised to reflect modern industry practice, and has substantially improved accuracy and precision over the first edition. The major changes are:

- the mandatory use of electroformed sieves instead of woven wire sieves;
- the mandatory use of a sieve shaker with a vertical hammer-drop action concurrent with the lateral sieving action;
- a different set of nominal aperture sizes to correspond to modern industry practice;
- weighing of fractions "on-sieve" rather than "off-sieve";
- changed sample preparation (no pre-drying);
- removal of the limit of 50 % atmospheric relative humidity;
- calculation of percentages using a "mass recovered" denominator rather than "original mass".

Introduction

This International Standard is based on AS 2879.6-1995 prepared by Standards Australia.

This document is a preview generated by EVS

Aluminium oxide used for the production of primary aluminium — Particle size analysis for the range 45 μm to 150 μm — Method using electroformed sieves

1 Scope

This International Standard specifies a dry sieve method using electroformed sieves for determining the mass distribution of the particle sizes in aluminium oxide used for the production of primary aluminium.

This method is applicable to calcined aluminium oxide containing a maximum of 20 % mass fraction of particles having a mean diameter exceeding 150 μm , and containing a maximum of 15 % mass fraction of particles having a mean diameter less than 45 μm .

This method is not applicable to the use of woven wire sieves.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3310-3, *Test sieves — Technical requirements and testing — Part 3: Test sieves of electroformed sheets*

3 Principle

A test portion of the crude sample is sieved mechanically through electroformed sieves.

Each of the separate fractions is weighed on the sieve, and a cumulative mass of material retained on each sieve aperture size is calculated.

4 Apparatus

4.1 Test sieves, each including a sieving medium (screen) and a frame.

The frames shall be cylindrical, having nominal diameters of 200 mm and heights between 50 mm and 75 mm. A lid and a bottom receiver shall be included. The sieves, lid and bottom receiver shall be capable of being fitted together tightly to form a series of test sieves¹⁾.

The screens shall be constructed of smooth electroformed sheet having square openings. The aperture tolerances shall be in accordance with ISO 3310-3.

1) Certified electroformed sieves manufactured by Bukbee-Meers of St Paul, Minnesota, USA, are examples of suitable products available commercially. This information is given for the convenience of users of this International Standard and does not constitute an endorsement by ISO of these products.