

INTERNATIONAL STANDARD

ISO
9136

First edition
1989-12-01

Abrasive macrograins — Determination of bulk density

Macrograins abrasifs — Détermination de la masse volumique apparente



Reference number
ISO 9136:1989(E)
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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.

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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 9136 was prepared by Technical Committee ISO/TC 29, *Small tools*.

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International Organization for Standardization

Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Abrasive macrograins — Determination of bulk density

1 Scope

This International Standard specifies a test method for the determination of the bulk density of bonded and coated abrasive macrograins.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 6344-1:—¹⁾, *Coated abrasives — Grain size analysis — Part 1: Definitions, designation and principle*.

ISO 8486:1986, *Bonded abrasives — Grain size analysis — Designation and determination of grain size distribution of macrogrits F4 to F220*.

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 6344-1 and ISO 8486 and the following definition apply.

bulk density of abrasive macrograins: Mass of a given volume of the abrasive grains, expressed in grams per cubic centimetre (g/cm³).

4 Apparatus

The test apparatus is illustrated in figure 1. It consists of the following elements.

4.1 Stand

An exact description of the stand is not necessary. The only requirement is that it is capable of holding the funnel in a vertical position so that the bottom of the funnel is $76 \text{ mm} \pm 1 \text{ mm}$ above the top of the measuring cylinder.

4.2 Funnel

The slope of the funnel shall be such that fine grains will not adhere to the sides. By preference, the funnel shall be made of stainless steel with smooth inside seams. Its dimensional characteristics (see also figure 1) shall be as follows:

- total height of funnel: 240 mm
- diameter of top: 160 mm
- inside diameter of the cylindrical outlet: $20 \text{ mm} \pm 0,5 \text{ mm}$
- height of the cylindrical outlet area: $40 \text{ mm} \pm 1 \text{ mm}$

4.3 Funnel release valve

An exact description of the funnel release valve is not necessary. The only requirement is that quick opening of the valve is ensured. Figure 1 illustrates a swinging stopper release valve as an example.

4.4 Measuring cylinder

The volume of the measuring cylinder shall be approximately 200 cm³ and its internal diameter shall be 64 mm. This results in an internal height of 62 mm. The exact volume of the measuring cylinder shall be determined in accordance with clause 5.

1) To be published.