

This is a preview of "ISO 6344-3:2021". [Click here to purchase the full version from the ANSI store.](#)

Third edition
2021-11

Coated abrasives — Determination and designation of grain size distribution —

Part 3: Microgrit sizes P240 to P5000

*Abrasifs appliqués — Détermination et désignation de la distribution
granulométrique —*

Partie 3: Micrograins P240 à P5000



Reference number
ISO 6344-3:2021(E)

© ISO 2021



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

This is a preview of "ISO 6344-3:2021". Click here to purchase the full version from the ANSI store.

Contents

	Page
Foreword.....	v
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Grain size distribution of microgrit sizes P240 to P1200.....	1
5 Test method of microgrit sizes P240 to P1200.....	2
5.1 Materials.....	2
5.1.1 Sedimentation medium.....	2
5.1.2 Dispersing agent.....	2
5.1.3 Checking minerals.....	3
5.2 Apparatus.....	4
5.3 Preparation.....	6
5.3.1 Preparation of the apparatus.....	6
5.3.2 Preparation of the test portion.....	7
5.4 Procedure.....	7
5.4.1 Filling of sedimentation tube.....	7
5.4.2 Dispersion of the test portion.....	7
5.4.3 Transfer to sedimentation tube.....	8
5.4.4 Start of measurement.....	8
5.4.5 Determination of the maximum grain size.....	8
5.4.6 Recording measurement values.....	8
5.5 Evaluation.....	8
5.5.1 General.....	8
5.5.2 Determination of the grain diameter, d	9
5.5.3 Determination of the volume fraction.....	10
5.5.4 Representation of the grain size distribution curve.....	11
5.5.5 Evaluation of the grain size distribution.....	12
5.5.6 Example of measuring a test portion of fused aluminium oxide.....	13
5.5.7 Permissible deviations.....	13
6 Grain size distribution of microgrit sizes P1500 to P5000.....	13
7 Test method of microgrit sizes P1500 to P5000.....	14
7.1 Materials.....	14
7.1.1 Micro-P-Mastergrits.....	14
7.1.2 Dispersing medium.....	14
7.2 Apparatus.....	15
7.3 Preparation.....	15
7.3.1 Preparation of the test portion.....	15
7.3.2 Calibration of the Apparatus.....	15
7.4 Procedure for the determination of the grain size distribution.....	16
7.5 Evaluation.....	16
7.5.1 Evaluation of the grain size distribution.....	16
7.5.2 Permissible deviations.....	16
8 Test report.....	17
9 Designation.....	17
10 Marking.....	18
Annex A (informative) Theoretical equivalent grain diameters, d, for grits of fused aluminium oxide and for grits of silicon carbide.....	19
Annex B (informative) Template for recording results of a sedimentation analysis of microgrit P sizes using the US sedimentometer.....	22

This is a preview of "ISO 6344-3:2021". [Click here to purchase the full version from the ANSI store.](#)

Annex C (informative) Example of recording results of a sedimentation analysis of microgrit P sizes using the US sedimentometer.....24

This is a preview of "ISO 6344-3:2021". [Click here to purchase the full version from the ANSI store.](#)

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 5, *Grinding wheels and abrasives*.

This third edition cancels and replaces ISO 6344-3:2013 and ISO 6344-1:1998, which have been technically revised.

The main changes compared to ISO 6344-3:2013 and ISO 6344-1:1998 are as follows:

- the title and the scope have been changed and updated due to the extension of grit designations up to P5000;
- relevant content of ISO 6344-1:1998 has been updated and transferred to this document and ISO 6344-2;
- references to ISO 6344-1:1998 have been deleted;
- normative references have been updated;
- [Clause 3](#) "Terms and definitions" has been updated;
- former [Clause 4](#) "Testing of microgrit sizes P240 to P1200" has been revised in its content and divided into two clauses: [Clause 4](#) "Grain size distribution of microgrit sizes P240 to P1200" and [Clause 5](#) "Test method of microgrit sizes P240 to P1200";
- the checking mineral 280 has been deleted;
- former [Tables 3](#) and [4](#) for the theoretical equivalent grain diameters have been moved to a new [Annex A](#) "Theoretical equivalent grain diameters, d , for grits of fused aluminium oxide and for grits of silicon carbide";
- former [Clause 5](#) has been revised in its content and divided into two clauses: [Clause 6](#) "Grain size distribution of microgrit sizes P1500 to P5000" and [Clause 7](#) "Test method of microgrit sizes P1500 to P5000";

This is a preview of "ISO 6344-3:2021". [Click here to purchase the full version from the ANSI store.](#)

- the grit designations P3000, P4000 and P5000 have been added;
- [Clause 8](#) "Test report" has been added;
- [Clause 10](#) (former Clause 7) "Marking" has been revised;
- [Annexes B](#) and [C](#) (former [Annexes A](#) and [B](#)) have been revised;
- Bibliography has been updated.

A list of all parts in the ISO 6344 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.