

Cleanrooms and associated controlled environments —

Part 1: Classification of air cleanliness

The European Standard EN ISO 14644-1:1999 has the status of a
British Standard

ICS 13.040.30

This British Standard, having been prepared under the direction of the Sector Committee for Materials and Chemicals, was published under the authority of the Standards Committee and comes into effect on 15 August 1999

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Amendments issued since publication

Amd. No.	Date	Comments
13013 Corrigendum No. 1	March 2001	Correction of supersession details in National foreword.

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National foreword

This British Standard is the English language version of EN ISO 14644-1:1999. It is identical with ISO 14644-1:1999. It supersedes BS 5295-1:1989, which is withdrawn. BS 5295-4:1989 is also withdrawn, and will be superseded by BS EN ISO 14644-2.

The UK participation in its preparation was entrusted to Technical Committee LBI/30, Cleanroom technology, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

In addition to Parts 1 and 4 of BS 5295 being withdrawn, Parts 0, 2 and 3 of BS 5295 have been amended, as an interim measure pending the publication of further Parts of the BS EN ISO 14644 series, whereupon Parts 0, 2 and 3 of BS 5295 will also be withdrawn. Likewise, PD 6609:1996 is subject to revision, such as to incorporate some appendices of BS 5295-1, which remain appropriate for use alongside BS EN ISO 14644-1, until further Parts of BS EN ISO 14644 are published. The scheduled further Parts of BS EN ISO 14644 are as follows:

- *Part 2: Specifications for testing and monitoring to prove continued compliance with ISO 14644-1;*
- *Part 3: Metrology and test methods;*
- *Part 4: Design, construction and start-up;*
- *Part 5: Operations;*
- *Part 6: Terms and definitions;*
- *Part 7: Enhanced clean devices;*
- *Part 8: Molecular contamination.*

The numbering and titles of the above standards were provisional at the time of publication of BS EN ISO 14644-1.

Correction

With reference to paragraph 2 of **B.6.1**, the first sentence is misleading. It should read “If the result of the 95 % UCL calculation fails to meet the specified air cleanliness classification, testing may be performed at additional, evenly distributed sampling locations”.

Cross-references

Attention is drawn to the fact that CEN and CENELEC Standards normally include an annex which lists normative references to international publications with their corresponding European publications. The British Standards which implement these international or European publications may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, the EN ISO title page, the EN ISO foreword page, the ISO title page, the ISO contents page, the ISO foreword page, the ISO introduction, pages 1 to 20, an inside back cover and a back cover.

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Cleanrooms and associated controlled environments — Part 1: Classification of air cleanliness

(ISO 14644-1:1999)

Salles propres et environnements maîtrisés
apparenés —
Partie 1: Classification de la propreté de l'air
(ISO 14644-1:1999)

Reinräume und zugehörige
Reinraumbereiche —
Teil 1: Klassifizierung der Luftreinheit
(ISO 14644-1:1999)

This European Standard was approved by CEN on 3 March 1999.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

The text of the International Standard ISO 14644-1:1999 has been prepared by Technical Committee ISO/TC 209 “Cleanrooms and associated controlled environments” in collaboration with Technical Committee CEN/TC 243 “Cleanroom technology”, the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 1999, and conflicting national standards shall be withdrawn at the latest by November 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 14644-1:1999 was approved by CEN as a European Standard without any modification.

INTERNATIONAL STANDARD

ISO
14644-1

First edition
1999-05-01

Cleanrooms and associated controlled environments —

Part 1: Classification of air cleanliness

Salles propres et environnements maîtrisés apparentés —

Partie 1: Classification de la propreté de l'air



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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 nongovernmental, 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 voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 14644-1 was prepared by Technical Committee ISO/TC 209, *Cleanrooms and associated controlled environments*.

ISO 14644 consists of the following parts, under the general title *Cleanrooms and associated controlled environments*.

- *Part 1: Classification of air cleanliness;*
- *Part 2: Specifications for testing and monitoring to prove continued compliance with ISO 14644-1;*
- *Part 3: Metrology and test methods;*
- *Part 4: Design, construction and start-up;*
- *Part 5: Operations;*
- *Part 6: Terms and definitions;*
- *Part 7: Enhanced clean devices.*

Users should note that the titles listed for parts 2 to 7 are working titles at the time of the release of part 1. In the event that one or more of these parts are deleted from the work programme, the remaining parts may be renumbered.

Annex B and Annex C form an integral part of this part of ISO 14644. Annex A, Annex D, Annex E, and Annex F are for information only.