

# SVENSK STANDARD

## SS-EN ISO 14644-13:2017



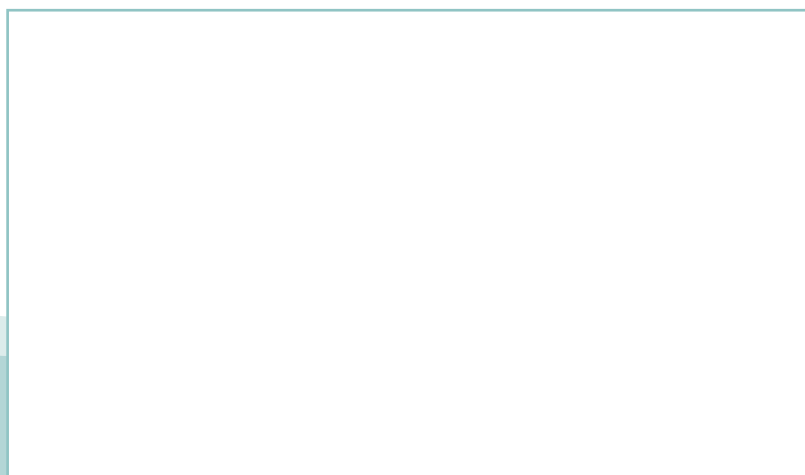
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### **Renhetsteknik – Renrum och tillhörande renhetskontrollerade miljöer –**

### **Del 13: Ytrengöring för att uppnå definierade nivåer av renhet för klassificering av partiklar och kemikalier (ISO 14644-13:2016)**

### **Cleanrooms and associated controlled environments – Part 13: Cleaning of surfaces to achieve defined levels of cleanliness in terms of particle and chemical classifications (ISO 14644-13:2017)**



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Europastandarden EN ISO 14644-13:2017 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN ISO 14644-13:2017.

The European Standard EN ISO 14644-13:2017 has the status of a Swedish Standard. This document contains the official version of EN ISO 14644-13:2017.

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Denna standard är framtagen av kommittén för Renhetsteknik, SIS/TK 108.

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EUROPEAN STANDARD

EN ISO 14644-13

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2017

ICS 13.040.35

English Version

Cleanrooms and associated controlled environments - Part  
13: Cleaning of surfaces to achieve defined levels of  
cleanliness in terms of particle and chemical classifications  
(ISO 14644-13:2017)

Salles propres et environnements maîtrisés apparentés  
- Partie 13: Nettoyage des surfaces afin d'obtenir des  
niveaux de propreté par rapport aux classifications  
particulaire et chimique (ISO 14644-13:2017)

Reinräume und zugehörige Reinraumbereiche - Teil  
13: Reinigung von Oberflächen zur Erreichung  
definierter Reinheitsgrade hinsichtlich Partikel- und  
Chemikalienklassifikationen (ISO 14644-13:2017)

This European Standard was approved by CEN on 26 May 2017.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**



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## European foreword

This document (EN ISO 14644-13:2017) 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 February 2018 and conflicting national standards shall be withdrawn at the latest by February 2018.

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

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### Endorsement notice

The text of ISO 14644-13:2017 has been approved by CEN as EN ISO 14644-13:2017 without any modification.

**SS-EN ISO 14644-13:2017 (E)****Introduction**

The term surface refers to the interface between two phases. For the purpose of this document, the surface is a solid. A “clean surface” is where one or more of the contamination categories (particles, chemical) are under control due to cleaning/decontamination. The degree of cleanliness is specified in the corresponding surface cleanliness classifications (see ISO 14644-9 and ISO 14644-10). Different cleaning methods are necessary depending on the degree of cleanliness (cleanliness class) required. This document gives guidance on the selection of cleaning methods to achieve specified cleanliness levels. For the selection procedure, the aspects of surface description, cleanliness specifications, types of contamination, cleaning techniques, material compatibility, and assessment methodology are taken into consideration. Most of the methods are suitable for removal of more than one contamination category at the same time; therefore, a common standard for the selection of a cleaning method for both particles, as well as chemical contamination, is needed.

# Cleanrooms and associated controlled environments —

## Part 13:

# Cleaning of surfaces to achieve defined levels of cleanliness in terms of particle and chemical classifications

## 1 Scope

This document gives guidelines for cleaning to a specified degree on cleanroom surfaces, surfaces of equipment in a cleanroom and surfaces of materials in a cleanroom. Under consideration are all surfaces (external or internal) that are of interest. It provides guidance on the assessment of cleaning methods for achieving the required surface cleanliness by particle concentration (SCP) and surface cleanliness by chemical concentration (SCC) classes and which techniques should be considered to achieve these specified levels.

The appropriateness of cleaning techniques will make reference to the cleanliness classes and associated test methods found in ISO 14644-9 and ISO 14644-10.

The following matters of general guidance will be provided:

- expected surface cleanliness levels;
- suitability of cleaning methods;
- compatibility of surfaces with the cleaning technique;
- assessment of cleaning appropriateness.

The following will be excluded from this document:

- classification of cleaning methods;
- product produced within a cleanroom;
- specific surface-related cleaning methods;
- detailed description of cleaning mechanisms, methods and procedures of various cleaning methods;
- detailed material characteristics;
- description of damage mechanisms by cleaning processes and time-dependent effects;
- references to interactive bonding forces between contaminants and surfaces or generation processes that are usually time-dependent and process-dependent;
- other characteristics of particles such as electrostatic charge, ionic charges, etc.;
- chemical reactions between molecular contaminants and surfaces;
- microbiological aspects of surface cleanliness;
- radioactive aspects of contamination;
- health and safety considerations;
- environmental aspects such as waste disposal, emissions, etc.;