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Normklasse : T 96

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**Werkplaatsatmosferen - Diffusie-monsternemingstoestellen voor gassen en dampen - Eisen en beproevingsmethoden**

*Workplace atmospheres - Diffusive samplers for the determination of gases and vapours - Requirements and test methods*

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Deze Europese norm bestaat in drie officiële versies (Duits, Engels, Frans).



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**Atmosphères des lieux de travail - Echantillonneurs par diffusion pour la détermination des gaz et vapeurs - Prescriptions et méthodes d'essai**

*Workplace atmospheres - Diffusive samplers for the determination of gases and vapours - Requirements and test methods*

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La présente norme européenne EN 838 : 1995 a le statut d'une norme belge.

La présente norme européenne existe en trois versions officielles (allemand, anglais, français).



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EUROPÄISCHE NORM

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English version

**Workplace atmospheres - Diffusive samplers for  
the determination of gases and vapours -  
Requirements and test methods**

Atmosphères des lieux de travail -  
Echantillonneurs par diffusion pour la  
détermination des gaz et vapeurs -  
Prescriptions et méthodes d'essai

Luftbeschaffenheit am Arbeitsplatz  
Diffusionsammler für Gase und Dämpfe  
Anforderungen und Prüfung

This European Standard was approved by CEN on 1995-07-14. 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.

The European Standards exist 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.

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## CEN

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

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**Foreword**

This European Standard has been prepared by the Technical Committee CEN/TC 137 "Assessment of workplace exposure" of which the secretariat is held by DIN.

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 May 1996, and conflicting national standards shall be withdrawn at the latest by May 1996.

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

## 0 Introduction

CEN/TC 137 "Assessment of workplace exposure" has proposed general performance criteria that methods of determining the concentration of chemical agents in workplace atmosphere should meet (see EN 482). These performance criteria include maximum values of overall uncertainty (a combination of precision and bias) achievable under prescribed laboratory conditions for the methods to be used. In addition, the performance criteria should also be met under a wider variety of environmental influences, representative of workplace conditions.

## 1 Scope

### 1.1 General

This European Standard specifies performance requirements and test methods under prescribed laboratory conditions for a diffusive sampler used for the determination of gases or vapours in workplace atmospheres.

Additional tests designed to establish whether the performance characteristics of the diffusive sampler are affected by the wider range of environmental influences that may be encountered in field use are described in annexes C and D.

If there is no diffusive sampler for measuring a particular chemical agent which meets the requirements of this European Standard, it is recommended to use a diffusive sampler whose performance is nearest to the specified requirements.

### 1.2 Field of application

The European Standard is applicable to:

- type A samplers: diffusive samplers which are used for the direct determination of concentrations, for example, length-of-stain detector tubes;
- type B samplers: diffusive samplers which are used for the indirect determination of concentration by sampling and analysis in separate stages.

Type B samplers may be further divided into:

- type B 1 samplers: diffusive samplers which rely on sorption onto a solid, desorption with solvent, and subsequent analysis of the desorbate;
- type B 2 samplers: diffusive samplers which rely on sorption onto a solid, desorption by heat, and analysis of the desorbate;
- type B 3 samplers: diffusive samplers which rely on sorption into a liquid, and subsequent analysis of the solution.

Specific aspects of the use of reagent impregnated systems will be covered in additional parts of this standard.

### 1.3 Object of standard

This European Standard should enable manufacturers and users of diffusive samplers to adopt a consistent approach to sampler validation and provide a framework for the assessment of sampler performance against criteria specified in EN 482. It is the responsibility of the manufacturer or of those who assemble the diffusive samplers to ensure that the sampler complies with the overall uncertainty requirements under the specified laboratory conditions given in this European Standard including such environmental influences, (e. g. temperature and humidity) that may be expected to affect performance.

No useful performance requirements can be given for the effect of interferents (with the exception of water vapour). However, the user of diffusive samplers should be cautioned that interferences may occur especially for type A samplers. Such information shall be included in the instructions for use.