PD CEN/TS 17340:2020

BSI Standards Publication

Stationary source emissions — Determination of mass concentration of fluorinated compounds expressed as HF — Standard reference method

bsi.

National foreword

This Published Document is the UK implementation of CEN/TS 17340:2020.

The UK participation in its preparation was entrusted to Technical Committee EH/2/1, Stationary source emission.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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TECHNICAL SPECIFICATION

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English Version

Stationary source emissions - Determination of mass concentration of fluorinated compounds expressed as HF - Standard reference method

Émissions de sources fixes - Détermination de la concentration massique en composés fluorés, exprimée en HF - Méthode de référence normalisée

Emissionen aus stationären Quellen - Bestimmung der Massenkonzentration fluorierter Verbindungen, angegeben als HF - Standardreferenzverfahren

This Technical Specification (CEN/TS) was approved by CEN on 17 August 2020 for provisional application.

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European foreword

This document (CEN/TS 17340:2020) has been prepared by Technical Committee CEN/TC 264 "Stationary source emissions", the secretariat of which is held by DIN.

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1 Scope

This document specifies a manual method for the determination of the concentration of fluorinated compounds expressed in HF. Two cases are presented:

— first case: the measurand is the concentration of gaseous and bound to particulates fluorides;

— second case: the measurand is the concentration of gaseous fluorides.

Three analytical techniques are proposed: ionometry, spectrophotometry and ion-exchange chromatography.

This document specifies the performance characteristics to be determined and the performance criteria to be fulfilled when it is used as the Standard Reference Method (SRM) for periodic monitoring and for calibration or control of Automated Measuring Systems (AMS) permanently installed on a stack, for regulatory or other purposes.

This document applies to fluoride concentrations which may vary between 0,1 mg HF/m^3 and 10 mg HF/m^3, at standard conditions of pressure and temperature (see NOTE). The limit of quantification of the method is estimated at 0,1 mg/m^3 for a sampled volume of 0,1 m^3.

Interference may occur for some matrices. Known elements that may lead to interference are mentioned in Annex C.

NOTE The Emission Limit Values (ELV) for HF are expressed in mg/m^3, for dry gases at the standard conditions (T_{std} = 273 K and P_{std} = 101,3 kPa).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies..

EN 13284-1, *Stationary source emissions - Determination of low range mass concentration of dust - Part 1: Manual gravimetric method*

EN 15259, *Air quality - Measurement of stationary source emissions - Requirements for measurement sections and sites and for the measurement objective, plan and report*

EN ISO 10304-1, *Water quality - Determination of dissolved anions by liquid chromatography of ions - Part 1: Determination of bromide, chloride, fluoride, nitrate, nitrite, phosphate and sulfate (ISO 10304-1)*

ISO/IEC Guide 98-3, *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
absorber
device in which the compound to be trapped is absorbed into the absorption solution