| STN | Bezpečnosť emisií zo spaľovacích vonných osviežovačov vzduchu. Skúšobné metódy. | STN EN 16738 |
|-----|---|-----------------|
| | | 83 5903 |

Emission safety of combustible air fresheners - Test methods

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 04/16

Obsahuje: EN 16738:2015

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 16738

November 2015

ICS 13.040.20

English Version

Emission safety of combustible air fresheners - Test methods

Sécurité des émissions des désodorisants à combustion - Méthodes d'essais Emissionssicherheit brennbarer Lufterfrischer -Testverfahren

This European Standard was approved by CEN on 17 October 2015.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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

| Conte | ontents | | |
|----------------|---|----|--|
| Europe | uropean foreword3 | | |
| 1 | Scope | 4 | |
| 2 | Normative references | 4 | |
| 3 | Terms and definitions | 5 | |
| 4 | Test methods | 6 | |
| 4.1 | Principles | 6 | |
| 4.2 | Apparatus | 7 | |
| 4.3 | General test conditions | 7 | |
| 4.3.1 | General | 7 | |
| 4.3.2 | Test chamber volume | | |
| 4.3.3 | Number of test specimens at the same time in the test chamber | 7 | |
| 4.3.4 | Positioning of test specimens in the test chamber | | |
| 4.3.5 | Air supply quality and background concentration | | |
| 4.3.6 | Test specimen preparation and ignition | | |
| 4.3.7 | Temperature inside the test chamber during the test | 10 | |
| 4.3.8 | Relative air humidity inside the test chamber during the test | | |
| 4.3.9 | Oxygen concentration inside the test chamber during the test | | |
| | Control of the burning process | | |
| | Burn rates | | |
| | Sampling and analysis of VOC (benzene, naphthalene) | | |
| | Sampling and analysis of formaldehyde | | |
| | Sampling and analysis of NO ₂ (nitrogen dioxide) | | |
| | Sampling and analysis of SO ₂ (sulfur dioxide) | | |
| | Sampling analysis of CO | | |
| 4.4 | Procedures of testing | | |
| 4.5 | Calculation of results | 12 | |
| 5 | Test report | 13 | |
| Annex | A (informative) Description of sorbent types | 14 | |
| Bibliography15 | | | |

European foreword

This document (EN 16738:2015) has been prepared by Technical Committee CEN/TC 421 "Project Committee - Emission safety of combustible air fresheners", the secretariat of which is held by UNI.

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 2016, and conflicting national standards shall be withdrawn at the latest by May 2016.

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

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This European standard specifies a test method for the determination of emissions resulting from the use of combustible air fresheners into indoor air by means of chamber operation according to EN ISO 16000-9.

This standard defines specific testing conditions for the measurement of the emissions from combustible air fresheners which minimize the effect of the testing on the combustion process.

This standard provides a measurement method for the determination of the following non-exhaustive list of target substances emitted directly from the burning process:

| list of target substances emitted directly from the burning process: |
|--|
| — VOC; |
| — Benzene; |
| — Naphthalene; |
| — Formaldehyde. |
| The measurement method can allow the determination of other substances. |
| This standard provides additional information on the optional measurement of the following substances: |
| — SO ₂ ; |
| $ NO_x$; |
| — CO. |
| |

This standard is not suitable for the quantitative determination of particulate matter.

This standard does not apply to non-combustible air fresheners and loose incenses.

Any scented candle with burning time shorter than 2,5 h is outside the scope of the standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 717-1, Wood-based panels - Determination of formaldehyde release - Part 1: Formaldehyde emission by the chamber method

EN 14211, Ambient air - Standard method for the measurement of the concentration of nitrogen dioxide and nitrogen monoxide by chemiluminescence

 ${\tt EN~14212}$, Ambient air - Standard method for the measurement of the concentration of sulphur dioxide by ultraviolet fluorescence

EN 14626, Ambient air - Standard method for the measurement of the concentration of carbon monoxide by non-dispersive infrared spectroscopy

EN 14789, Stationary source emissions - Determination of volume concentration of oxygen (02) - Reference method - Paramagnetism

EN 14792, Stationary source emissions - Determination of mass concentration of nitrogen oxides (NOx) - Reference method: Chemiluminescence

EN 15058, Stationary source emissions - Determination of the mass concentration of carbon monoxide (CO) - Reference method: Non-dispersive infrared spectrometry

EN 15426, Candles - Specification for sooting behaviour

EN ISO 16000-9, Indoor air - Part 9: Determination of the emission of volatile organic compounds from building products and furnishing - Emission test chamber method (ISO 16000-9)

EN ISO 16017-1, Indoor, ambient and workplace air - Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography - Part 1: Pumped sampling (ISO 16017-1)

ISO 16000-3, Indoor air — Part 3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air — Active sampling method

ISO 16000-6, Indoor air — Part 6: Determination of volatile organic compounds in indoor and test chamber air by active sampling on Tenax TA sorbent, thermal desorption and gas chromatography using MS or MS-FID

koniec náhľadu – text ďalej pokračuje v platenej verzii STN