



SLOVENSKI STANDARD
SIST EN 50642:2018/A1:2022

01-november-2022

**Sistemi za urejanje okablenja - Metoda za preskušanje vsebnosti halogenov -
Dopolnilo A1**

Cable management systems - Test method for content of halogens

Kabelführungssysteme - Prüfverfahren für Halogengehalt

Systèmes de gestion de câblage - Méthode d'essai relative à la teneur en halogènes

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English Version

Cable management systems - Test method for content of halogens

Systèmes de gestion de câblage - Méthode d'essai relative
à la teneur en halogènes

Kabelführungssysteme - Prüfverfahren für Halogengehalt

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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EN 50642:2018/A1:2022 (E)

European foreword

This document (EN 50642:2018/A1:2022) has been prepared by CLC/TC 213 “Cable management systems”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2023-07-25
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2025-07-25

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1 Modification to Clause 1 “Scope”

Replace the first three paragraphs with the following:

“This document specifies a method for the determination of the content of halogens in Cable Management System (CMS) products or system components made completely or partly of combustible material(s). The determination is made by combustion and subsequent analysis of the combustion product by Ion Chromatography. This document specifies how CMS products or system components can be declared as halogen free.

This document is for environmental performance only.

Compliance with this document does not imply the absence of toxicity, corrosivity or opacity of produced smoke, or other reaction to fire characteristics. If any of these characteristics are to be evaluated, the appropriate standards can be used.”

2 Modifications to Clause 3 “Terms and definitions”

In 3.1, **replace** the Note 1 to entry with the following:

“

Note 1 to entry: The above definition is valid for this document only and does not strictly comply with scientific definition of halogen content.”

Add the following new term and definition:

“

3.2

combustible

capable of being ignited and burned

[SOURCE: EN ISO 13943:2017]”

3 Modifications to Clause 4 “Principle”

Add the following as a new first paragraph of the clause:

“For the purpose of this document, a material is considered as being non-combustible if its gross calorific potential is assumed to be lower than 3,0 MJ/kg. In case of doubt EN ISO 1716 is used to measure the calorific potential.

Examples of non-combustible materials are:

- uncoated stainless steel,
- steel with metallic coating,
- uncoated aluminium,
- copper,
- ceramic.”

Replace the last sentence with the following:

“When this test method is used for poorly burning samples, a combustion enhancer may be used.”

4 Modifications to Clause 6 “Classifications, limits and declaration”

Replace the entire content of 6.2, “Limits”, with the following:

“A CMS product or system component classified according to 6.1.2 shall comply with the following specified limits:

- fluorine content (F) \leq 3,0 g/kg (corresponding to 0,30 % wt/wt)

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- chlorine content (Cl) $\leq 1,5$ g/kg (corresponding to 0,15 % wt/wt)
- bromine content (Br) $\leq 1,5$ g/kg (corresponding to 0,15 % wt/wt)
- iodine content (I) $\leq 3,0$ g/kg (corresponding to 0,30 % wt/wt)
- total halogen content: fluorine content (F) + chlorine content (Cl) + bromine content (Br) + iodine content (I) ≤ 4 g/kg (corresponding to 0,40 % wt/wt)."

Replace the entire content of 6.3, "Declaration", with the following:

"A CMS product or system component classified according to 6.1.2 can be declared as "halogen free according to EN 50642" if the CMS product or system component meets the requirements of 6.2."

5 Modifications to Clause 7 "Reagents and control mixtures"

Replace the entire content of 7.1.4, "Absorption solution 2 for the determination of iodine", with the following:

"Solution 2 shall be ascorbic acid-solution, (C₆H₈O₃), 10 g/kg."

Replace the entire content of 7.1.5, "Oxygen", with the following:

"The oxygen shall be free of combustible material, available at a pressure of 3 MPa to 4 MPa (e.g. medical grade)."

6 Modification to Clause 8 "Sample preparation"

Replace the entire content of the clause with the following:

"For each product, non-combustible parts which can be completely separated through disassembling, cutting, crushing or grinding are separated and are not tested.

NOTE 1 Examples of parts which can be separated are screws, metal inserts and terminals.

The mass of all remaining combustible parts is measured.

A test sample representative of each part is cut or ground into pieces with a grain size not exceeding 2 mm.

NOTE 2 If the grain size is too small, there is a risk of blowing away the test sample when purging and filling the bomb with oxygen. Should this occur, an appropriate method can be adopted to prevent this.

A part made of multiple combustible materials is assessed on its averaged contents. This is achieved by grinding or sawing the part to produce a test sample containing a similar ratio of materials as the original part.

During preparation of the test sample, contact with halogenated polymers, e.g. PVC gloves, shall be avoided."

7 Modification to Clause 10 "Procedure"

In 10.4, "Combustion":

add at the end of the second paragraph:

"For parts consisting of combustible and non-combustible materials which cannot be separated, it is recommended to increase the total mass (sample and enhancer) to a maximum of 500 mg."

replace in the seventh paragraph "35 ± 3 bar" with "(3,5 ± 0,3) MPa".