



SLOVENSKI STANDARD SIST ISO 8243:2014

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Cigarete - Vzorčenje

Cigarettes - Sampling

Cigarettes - Échantillonnage
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INTERNATIONAL STANDARD

**ISO
8243**

Fifth edition
2013-07-01

Cigarettes — Sampling

Cigarettes — Échantillonnage

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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Sampling mode: At one time	3
4.1 Procedure for sampling at the point of sale.....	3
4.2 Procedure for sampling at the factory.....	5
5 Sampling mode: Over a period of time	6
5.1 General.....	6
5.2 Procedure for sampling over a period of time at the factory.....	6
6 Statistical evaluation and reporting	6
6.1 Statistical evaluation.....	6
6.2 Outliers.....	6
6.3 Confidence interval.....	7
6.4 Applications to the verification of cigarettes yields.....	7
7 Sampling report	8
Annex A (informative) Flow chart illustration of the sampling in Clauses 4 and 5	9
Annex B (informative) Sources of variability concerning the choice of sampling procedures	10
Bibliography	11

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<https://standards.iteh.ai/catalog/standards/sist/3f66e236-e213-45f8-bcbe-baba487a8fbc/sist-iso-8243-2014>

ISO 8243:2013(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

The committee responsible for this document is ISO/TC 126, *Tobacco and tobacco products*.

This fifth edition cancels and replaces the fourth edition (ISO 8243:2006), which has been technically revised.

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Introduction

It is difficult to recommend a detailed method of sampling cigarettes, suitable for every purpose. The objective of sampling is clearly to provide a representative sample but the problem arises because the specific purpose for which tests are required affects the recommendation.

Existing national standards, rules, regulations and laws were taken into account when preparing this International Standard and two different procedures, both of which are simple and reliable, are described:

- sampling at the point of sale;
- sampling at producer's premises or importers' and distributors' warehouses.

Sampling is carried out "at one point in time" (e.g. cigarettes available for distribution from a factory/warehouse or available at a retail outlet on the market on a scheduled day). When a sample is required which represents cigarettes available over an appreciable period of time (e.g. cigarettes representing several months' production) a number of sub-period samples will be taken in a series of samplings, and the results combined.

Since this International Standard was originally written in 1981, its role in providing a basis of sampling cigarettes for the verification of on-pack declarations of smoke constituent yields has become increasingly important. For this reason a guide to the statistical evaluation and reporting of results is included to clarify the statistical basis of the confidence intervals for nicotine-free dry particulate matter (NFDPM), nicotine and carbon monoxide (CO) that are listed in [Table 3](#).

Sampling according to [Clauses 4](#) and [5](#) of this International Standard provides a representative cigarette sample that might be used for other testing purposes.

The sources of variability arising in cigarette manufacture and in the determination of smoke constituent components are described in [Annex B](#) and in ISO/TR 22305. It is recommended that determinations of smoke constituent yields should be made on the population manufactured for sale, sampled at manufacturers' factories or importers' warehouses and that because of variations in cigarette manufacture the "sampling over a period of time" mode should be used wherever possible.

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Cigarettes — Sampling

1 Scope

This International Standard specifies two methods of providing representative samples of a population of cigarettes manufactured for sale. Different procedures are specified (see [Table 1](#)) according to whether sampling is undertaken at the point of sale or at a factory.

- a) Sampling “at one point in time” provides for appraisal of the chosen properties of the cigarettes on that occasion. Sampling is carried out within as short a period as possible.
- b) Sampling “over a period of time” provides for on-going appraisals. It can be considered for practical purposes as a series of samples each taken “at one point in time”.

Table 1 — Sampling possibilities

Sampling procedures		Sampling mode	
		At one time (instantaneous)	Over a period (continuous)
A	At point of sale	Subclause 4.1	^a
B	At a factory	Subclause 4.2	Clause 5
^a Procedure A over a period of time is possible but is not specified in this International Standard.			

This International Standard provides information on the statistical basis for the treatment of data and gives estimates, based on practical experience, of the typical confidence intervals for nicotine-free dry particulate matter (NFDPM), nicotine and CO yields which may be found when a product is sampled in accordance with this International Standard and smoked in accordance with the procedures specified in ISO 3308, ISO 3402, ISO 4387, ISO 8454, ISO 10315, ISO 10362-1 and ISO 10362-2.

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.

ISO 4387, *Cigarettes — Determination of total and nicotine-free dry particulate matter using a routine analytical smoking machine*

ISO 5725-2, *Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*

ISO 8454, *Cigarettes — Determination of carbon monoxide in the vapour phase of cigarette smoke — NDIR method*

ISO 10315, *Cigarettes — Determination of nicotine in smoke condensates — Gas-chromatographic method*

3 Terms and definitions

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

3.1

factory

place of manufacture or its associated distribution depots or the warehouse of an importer