
Cigarettes — Determination of carbon monoxide in the vapour phase of cigarette smoke with an intense smoking regime — NDIR method

Cigarettes — Dosage du monoxyde de carbone dans la phase gazeuse de la fumée de cigarette obtenue avec un régime de fumage intense — Méthode IRND

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Foreword

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Introduction

Historically, a set of ISO standards have been developed to specify the requirements of analytical cigarette smoking machines and their use for the quantitative determination of a number of cigarette smoke constituents (such as total particulate matter, nicotine-free dry particulate matter, water, nicotine or benzo[a]pyrene) with a unique standard smoking regime. The description of this smoking regime is provided in ISO 3308.

Later, requirements to provide smoke constituents data with an intense smoking regime, different from the ISO 3308 standard smoking regime, originated from different countries and the Conferences of the Parties to the Framework Convention on Tobacco Control, resulting in a need to specify the conditions for the use of the intense smoking regime on analytical cigarette-smoking machines. The specifications for the use of the intense smoking regime on analytical cigarette-smoking machines are provided in ISO 20778.

This document took into account practical work conducted in the framework of an interlaboratory study involving 35 laboratories (published as ISO/TR 19478-1 and ISO/TR 19478-2). It provides specifications for the determination of carbon monoxide in the vapour phase of cigarette smoke obtained with an intense smoking regime using NDIR method.

No machine smoking regime can represent all human smoking behaviour.

- It is recommended that cigarettes also be tested under conditions of a different intensity of machine smoking than those specified in this document.
- Machine smoking testing is useful to characterize cigarette emissions for design and regulatory purposes, but communication of machine measurements to smokers can result in misunderstandings about differences in exposure and risk across brands.
- Smoke emission data from machine measurements may be used as inputs for product hazard assessment, but they are not intended to be nor are they valid as measures of human exposure or risks. Communicating differences between products in machine measurements as differences in exposure or risk is a misuse of testing using ISO standards.

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