PD ISO/TS 22492:2019

BSI Standards Publication

# Water pipe tobacco products — Determination of carbon monoxide emission of glowing water pipe charcoal — NDIR method

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# National foreword

This Published Document is the UK implementation of ISO/TS 22492:2019.

The UK participation in its preparation was entrusted to Technical Committee AW/40, Tobacco and tobacco products.

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

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# Foreword

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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 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 126, *Tobacco and tobacco products*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

# Introduction

For the testing of water pipe tobacco a routine analytical water pipe tobacco smoking machine is used, heating the water pipe tobacco with an electrical heater. This is done to prevent contamination of the collected phase by the emission of glowing water pipe charcoal. Nevertheless, most of the users use glowing water pipe charcoal to heat up the water pipe tobacco for smoking.

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**TECHNICAL SPECIFICATION** **ISO/TS 22492:2019**

# Water pipe tobacco products — Determination of carbon monoxide emission of glowing water pipe charcoal — NDIR method

## 1 Scope

This document specifies a method for the determination of carbon monoxide (CO) emission of glowing water pipe charcoal.

## 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.

ISO 3402, *Tobacco and tobacco products — Atmosphere for conditioning and testing*

ISO 22486, *Water pipe tobacco smoking machine — Definitions and standard conditions*

ISO/TS 22487, *Water pipe tobacco — Determination of total collected matter and nicotine*

## 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 https://www.iso.org/obp

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

**3.1**
**vapour phase**
portion of gas, which passes the glowing charcoal and the water bottle during smoking in accordance with ISO/TS 22487 using a machine conforming to ISO 22486

## 4 Principle

Light up a sample of charcoal for water pipe smoking, place it in the sample holder of a routine analytical water pipe tobacco smoking machine and take puffs in accordance with the procedures given in ISO/TS 22487. Collection of the vapour phase and measurement of the carbon monoxide using a non-dispersive infrared (NDIR) analyser calibrated for carbon monoxide. Calculation of the amount of carbon monoxide per sample.

## 5 Apparatus

Usual laboratory apparatus and, in particular, the following items.

**5.1 Conditioning enclosure**, maintained accurately in accordance with the conditions specified in ISO 3402, for conditioning the cigarette sample prior to smoking (see also 7.1).