BS ISO 12219-2:2012

BSI Standards Publication

Interior air of road vehicles

Part 2: Screening method for the determination of the emissions of volatile organic compounds from vehicle interior parts and materials — Bag method

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National foreword

This British Standard is the UK implementation of ISO 12219-2:2012.

The UK participation in its preparation was entrusted to Technical Committee EH/2/3, Ambient atmospheres.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Interior air of road vehicles —

Part 2:
Screening method for the determination of the emissions of volatile organic compounds from vehicle interior parts and materials — Bag method

Air intérieur des véhicules routiers —

Partie 2: Méthode de criblage pour la détermination des émissions de composés organiques volatils des parties et des matériaux intérieurs des véhicules — Méthode du sac

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 12219-2 was prepared by Technical Committee ISO/TC 146, *Air quality*, Subcommittee SC 6, *Indoor air*, in collaboration with Technical Committee ISO/TC 22, *Road vehicles*.

ISO 12219 consists of the following parts, under the general title *Interior air of road vehicles*:

— *Part 1: Whole vehicle test chamber — Specification and method for the determination of volatile organic compounds in cabin interiors*

— *Part 2: Screening method for the determination of the emissions of volatile organic compounds from vehicle interior parts and materials — Bag method*

— *Part 3 Screening method for the determination of the emissions of volatile organic compounds from vehicle interior parts and materials — Micro-scale chamber method*

— *Part 4: Screening method for the determination of the emissions of volatile organic compounds from vehicle interior parts and materials — Small chamber method*

The following part is under preparation:

— *Part 5: Screening method for the determination of the emissions of volatile organic compounds from vehicle interior parts and materials — Static chamber method*

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Introduction

Volatile organic compounds (VOCs) are widely used in industry and may be emitted by many everyday products and materials. They have attracted much attention in recent years because of their impact on indoor air quality. After homes and workplaces, people spend a lot of time in their vehicles. It is important to determine the material emissions of interior parts and to reduce them to an acceptable level, if required. Therefore it is necessary to obtain comprehensive and reliable information about the types of organic compounds in the interior air of vehicles and also their concentrations.

This part of ISO 12219 outlines the sampling bag test method for the screening of VOCs, formaldehyde and other carbonyl compounds which diffuse from vehicle interior parts into the air inside road vehicles.

Measuring VOCs from vehicle interior parts can be performed in several ways and the approach selected depends upon the desired outcome and the material type. For example, to obtain diffusion data from complete assemblies (e.g. instrument panel, seat etc.) it is necessary to employ chambers / bags that have sufficient volume to house the complete assembly. Meanwhile, to obtain diffusion data from representative samples of homogeneous vehicle interior materials, the micro-scale chamber method can be chosen.

Each measurement method such as bag/micro-scale chamber/small-chamber sampling offers a complementary approach.

ISO 16000-3, ISO 16000-5,[2] ISO 16000-6, ISO 16000-9,[3] ISO 16000-10,[4] ISO 16000-11,[5] ISO 16000-24,[6] ISO 16000-25,[7] as well as ISO 16017-1 and ISO 16017-2[8] also focus on VOC measurements.

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