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Interested committees:

Title: Draft BS ISO 22271-1 Rubber, vulcanized. Quantitative analysis methods for volatilized sulfur and sulfur compounds under heating conditions. Part 1: Sulfur.

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/DIS 22271-1

Rubber, vulcanized — Quantitative analysis methods for volatilized sulfur and sulfur compounds under heating conditions —

Part 1: Sulfur

Caoutchouc vulcanisé — Méthodes d'analyse quantitative du soufre et des composés volatiles du soufre sous chauffage —

Partie 1: Soufre

ICS: 83.060

ISO/TC 45/SC 2

Secretariat: JISC

Voting begins on:
2025-04-23

Voting terminates on:
2025-07-16

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Foreword

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This document was prepared by Technical Committee ISO/TC 45, Rubber and rubber products, Subcommittee SC 2, Testing and analysis.

This is the first edition of (ISO 22271-1:####)

A list of all parts in the ISO 22271 series can be found on the ISO website.

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

Rubber products have long been used for vehicles because of their function of isolating vibration and shock, and the trend will continue even more electronic devices used in vehicles increase. On the other hand, it is well known that some of the volatilized matters from rubber products at a relatively high temperature are corrosive. Similar issues might apply to other markets of rubber products. Therefore, it is helpful and useful for customers of rubber products and also rubber manufacturers to have test methods to measure the amount of individual volatilized matters which can cause an adverse impact on electric devices even if its amount is small.

ISO 22271 series specifies the quantitative analysis methods for volatilized sulfur and sulfur compounds under heating conditions from vulcanized rubber products.

ISO 22271-1 specifies methods for determining the amount of sulfur volatilized from vulcanized rubber under heating conditions using high performance liquid chromatograph (HPLC). The methods apply only to the sulfur which chemical formula is S_8 . This document provides two methods to collect volatilized sulfur.

ISO 22271-2 specifies methods for determining the amount of sulfur compounds volatilized from vulcanized rubber under heating conditions using gas chromatograph (GC) or ion chromatograph (IC). The test method by gas chromatograph is used to quantify hydrogen sulfide (H_2S), carbonyl sulfide (COS), and carbon disulfide (CS_2) volatilized from the vulcanized rubber. The test method by ion chromatograph is used to quantify sulfur dioxide (SO_2) volatilized from the vulcanized rubber.

The test methods in this document are quantitative analysis for sulfur.