BS ISO 1126:2015

BSI Standards Publication

Rubber compounding ingredients — Carbon black — Determination of loss on heating

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National foreword

This British Standard is the UK implementation of ISO 1126:2015. It supersedes BS ISO 1126:2006 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/50, Rubber - Raw, natural and synthetic, including latex and carbon black.

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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Compliance with a British Standard cannot confer immunity from legal obligations.

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Fifth edition
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Rubber compounding ingredients — Carbon black — Determination of loss on heating

Ingrédients de mélange du caoutchouc — Noir de carbone — Détermination de la perte à la chaleur

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 3, *Raw materials (including latex) for use in the rubber industry*.

This fifth edition cancels and replaces the fourth edition (ISO 1126:2006), of which it constitutes a minor revision with the following changes:

— method 1 is stated as the preferred method in the scope;

— precision data were moved in an informative annex.

INTERNATIONAL STANDARD ISO 1126:2015(E)

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WARNING — Persons using this International Standard should be familiar with normal laboratory practice. This International Standard does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

1 Scope

This International Standard specifies methods for determining the loss on heating of carbon black for use in the rubber industry. This loss on heating is due primarily to loss of moisture, but traces of other volatile materials may also be lost.

These methods are not applicable to treated carbon blacks which contain added volatile materials.

One of the following three methods is used:

— method 1: gravity-convection oven method;

— method 2: moisture balance method;

— method 3: infrared irradiation method (rapid method).

Method 1 is the preferred method.

2 Method 1: Gravity-convection oven method

2.1 Principle

A test portion of carbon black is heated for 1 h at a temperature of 125 °C in a weighing bottle. The weighing bottle plus contents is allowed to cool in a desiccator to room temperature and weighed, and the percentage loss on heating calculated.

Apparatus equivalent to that specified may be used provided the same results are obtained.

2.2 Apparatus

2.2.1 Oven, gravity-convection type, the temperature of which can be regulated to within ±1 °C at 125 °C and the temperature uniformity of which is ±5 °C or better.

2.2.2 Weighing bottle, squat-form, 30 mm in height and 60 mm in diameter, fitted with a ground-glass stopper.

When larger samples are required for other tests, use an open vessel of dimensions such that the depth of the black is not greater than 10 mm during conditioning.

2.2.3 Analytical balance, accurate to ±0,1 mg.

2.2.4 Desiccator.