

INTERNATIONAL STANDARD

**ISO
1126**

Third edition
1992-03-01

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

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

Dit document mag slechts op een stand-alone PC worden geïnstalleerd. Gebruik op een netwerk is alleen toestaan als een aanvullende licentieovereenkomst voor netwerkgebruik met NEN is afgesloten. This document may only be used on a stand-alone PC. Use in a network is only permitted when a supplementary license agreement for us in a network with NEN has been concluded.

Preview



Reference number
ISO 1126:1992(E)

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.

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.

International Standard ISO 1126 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Sub-Committee SC 3, *Raw materials (including latex) for use in the rubber industry*.

This third edition cancels and replaces the second edition (ISO 1126:1985), of which it constitutes a minor revision.

© ISO 1992

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

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

1 Scope

This International Standard specifies a method 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.

This method is not applicable to treated carbon blacks which contain added volatile materials.

2 Principle

A test portion of carbon black is heated for 1 h at a temperature of 105 °C or 125 °C in a weighing bottle. The weighing bottle plus contents are allowed to cool in a desiccator to room temperature and weighed, and the percentage loss on heating calculated.

3 Apparatus

3.1 Oven, preferably gravity-convection type, capable of maintaining a temperature of 105 °C ± 2 °C or 125 °C ± 2 °C.

NOTE 1 The loss on heating of a carbon black may depend upon the test temperature chosen.

3.2 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 no greater than 10 mm during conditioning.

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

3.4 Desiccator.

4 Procedure

4.1 Precautions

4.1.1 Take the sample of carbon black in a tightly stoppered glass bottle or friction-top can. Allow the closed container to reach ambient temperature before starting the test.

4.1.2 Keep the weighing bottle stoppered when transferring to and from the desiccator, to prevent loss of carbon black due to air currents.

4.2 Determination

4.2.1 Dry the weighing bottle (3.2) and the stopper, with the stopper removed, in the oven (3.1) at a temperature of 105 °C ± 2 °C or 125 °C ± 2 °C for 30 min. Place the bottle and the stopper in the desiccator (3.4) and allow to cool to ambient temperature. Weigh the bottle with stopper to the nearest 0,1 mg.

4.2.2 Weigh to the nearest 0,1 mg about 2 g of carbon black into the weighing bottle.

4.2.3 Place the weighing bottle, test portion and stopper in the oven for 1 h at a temperature of 105 °C ± 2 °C or 125 °C ± 2 °C, with the stopper removed.

4.2.4 Replace the stopper and transfer the bottle and contents to the desiccator. Remove the stopper and allow to cool to ambient temperature. Replace the stopper on the weighing bottle and reweigh to the nearest 0,1 mg.

5 Expression of results

Calculate the loss on heating, expressed as a percentage by mass, using the formula

$$\frac{m_1 - m_2}{m_1 - m_0} \times 100$$

where

m_0 is the mass, in grams, of the weighing bottle and stopper;

m_1 is the mass, in grams, of the weighing bottle, stopper and test portion before heating;

m_2 is the mass, in grams, of the weighing bottle, stopper and test portion after heating.

6 Test report

The test report shall include the following particulars:

- a) a reference to this International Standard;
- b) all details necessary to identify the sample;
- c) the temperature used (105 °C or 125 °C);
- d) the results, and the units in which they have been expressed;
- e) any unusual features noted during the determination;
- f) any operation not included in this International Standard or regarded as optional.

Bestelformulier

Stuur naar:

NEN Standards Products & Services
t.a.v. afdeling Klantenservice
Antwoordnummer 10214
2600 WB Delft



NEN Standards Products & Services

Postbus 5059
2600 GB Delft

Vlinderweg 6
2623 AX Delft

T (015) 2 690 390
F (015) 2 690 271

www.nen.nl/normshop

Ja, ik bestel

__ ex. ISO 1126:1992 en Rubber compounding ingredients - Carbon black - € 31.57
Determination of loss on heating

Wilt u deze norm in PDF-formaat? Deze bestelt u eenvoudig via www.nen.nl/normshop

Gratis e-mailnieuwsbrieven

Wilt u op de hoogte blijven van de laatste ontwikkelingen op het gebied van normen, normalisatie en regelgeving? Neem dan een gratis abonnement op een van onze e-mailnieuwsbrieven. www.nen.nl/nieuwsbrieven

Gegevens

Bedrijf / Instelling _____

T.a.v. _____ O M O V

E-mail _____

Klantnummer NEN _____

Uw ordernummer _____ BTW nummer _____

Postbus / Adres _____

Postcode _____ Plaats _____

Telefoon _____ Fax _____

Factuuradres (indien dit afwijkt van bovenstaand adres)

Postbus / Adres _____

Postcode _____ Plaats _____

Datum _____ Handtekening _____

Retourneren

Fax: 015 2 690 271

E-mail: klantenservice@nen.nl

Post: NEN Standards Products & Services,

t.a.v. afdeling Klantenservice
Antwoordnummer 10214,
2600 WB Delft

(geen postzegel nodig).

Voorwaarden

- De prijzen zijn geldig tot 31 december 2018, tenzij anders aangegeven.
- Alle prijzen zijn excl. btw, verzend- en handelingskosten en onder voorbehoud bij o.m. ISO- en IEC-normen.
- Bestelt u via de normshop een pdf, dan betaalt u geen handeling en verzendkosten.
- Meer informatie: telefoon 015 2 690 391, dagelijks van 8.30 tot 17.00 uur.
- Wijzigingen en typfouten in teksten en prijsinformatie voorbehouden.
- U kunt onze algemene voorwaarden terugvinden op: www.nen.nl/leveringsvoorwaarden.