

Transformed

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

**ISO RECOMMENDATION
R 1125**

**DETERMINATION OF ASH CONTENT OF CARBON BLACK
FOR THE RUBBER INDUSTRY**

1st EDITION

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BRIEF HISTORY

The ISO Recommendation R 1125, *Determination of ash content of carbon black for the rubber industry*, was drawn up by Technical Committee ISO/TC 45, *Rubber*, the Secretariat of which is held by the British Standards Institution (BSI).

Work on this question led to the adoption of a Draft ISO Recommendation.

In September 1967, this Draft ISO Recommendation (No. 1308) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	India	Spain
Austria	Iran	Sweden
Brazil	Israel	Switzerland
Canada	Italy	Thailand
Czechoslovakia	Japan	U.A.R.
France	Netherlands	United Kingdom
Germany	New Zealand	U.S.A.
Greece	Poland	U.S.S.R.
Hungary	Portugal	Yugoslavia

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in October 1969, to accept it as an ISO RECOMMENDATION.

DETERMINATION OF ASH CONTENT OF CARBON BLACK
FOR THE RUBBER INDUSTRY

1. SCOPE

This ISO Recommendation describes a method for determining the ash content of all types of carbon black for use in the rubber industry.

2. PRINCIPLE OF METHOD

A portion of dried sample is accurately weighed and ignited until all the carbonaceous material is oxidized. The crucible is then allowed to cool in a desiccator, weighed, and the percentage of ash is calculated.

3. APPARATUS

- 3.1 *Muffle furnace*, capable of maintaining a temperature of 550 ± 25 °C.
- 3.2 *Porcelain crucible*, tall form, diameter 35 mm, height 30 mm, with cover.
- 3.3 *Analytical balance*, accurate to ± 0.1 mg.
- 3.4 *Desiccator*.
- 3.5 *Oven*, preferably gravity convection type, capable of maintaining a temperature of 105 ± 2 °C.

4. PROCEDURE

- 4.1 Ignite the crucible with cover in the muffle furnace at a temperature of 550 ± 25 °C for 1 hour. Place the crucible and cover in the desiccator. Cool to ambient temperature and weigh to the nearest 0.1 mg.
- 4.2 Dry an amount of a little more than 2 g of carbon black for 1 hour at a temperature of 105 ± 2 °C.
- 4.3 Weigh to the nearest 0.1 mg about 2 g of the dried carbon black into the ignited crucible, place in the furnace at a temperature of 550 ± 25 °C and heat with the cover removed until constant mass is obtained. Replace the cover, remove to the desiccator, and allow to cool to ambient temperature. Weigh to the nearest 0.1 mg.

NOTE. - Precautions

- (a) Keep the door of the furnace open about 0.5 cm to admit air to support the combustion of organic material.
- (b) After the test portion has cooled in the desiccator, admit air slowly to avoid loss of ash from the crucible by air currents.