INTERNATIONAL STANDARD

ISO 1306

Third edition
1987-07-15

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ORGANISATION INTERNATIONALE DE NORMALISATION
МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Rubber compounding ingredients — Carbon black (pelletized) — Determination of pour density

Ingrédients de mélange du caoutchouc — Noir de carbone (en granules) — Détermination de la masse volumique apparente

Reference number
ISO 1306 : 1987 (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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 1306 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products.*

This third edition cancels and replaces the second edition (ISO 1306 :1981), of which it constitutes a minor revision.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Printed in Switzerland

Rubber compounding ingredients — Carbon black (pelletized) — Determination of pour density

1 Scope and field of application

This International Standard specifies a method for determining the pour density of all types of pelletized carbon blacks for use in the rubber industry.

2 Principle

Weighing of a measured volume of carbon black and calculation of the pour density.

3 Apparatus

3.1 Cylindrical container, of 1 000 cm^3 capacity when filled to the top and of a recommended 100 ± 10 mm diameter, having a uniform height and no pouring lip or deformation of the wall.

Other capacities may be used if it can be shown that the same results are obtained.

3.2 Straightedge or **spatula**, at least 130 mm in length.

3.3 Balance, accurate to 0,1 g.

4 Procedure

Pour the carbon black into the centre of the tared cylindrical container (3.1) from a height not more than 50 mm above the rim. A large enough excess shall be used to form a cone above the rim of the cylindrical container. Level the surface with a single sweep of the straightedge or spatula (3.2) held horizontally and perpendicular to and in firm contact with the rim of the container. Weigh the container with the carbon black. Determine the mass of the carbon black to the nearest gram.

5 Expression of results

The pour density, d, in grams per cubic decimetre (or kilograms per cubic metre), is equal to the mass, in grams, of the carbon black.

Alternatively, the pour density, d, may be expressed in grams per cubic centimetre, using the following formula :

$$\frac{m}{V}$$

where

m is the mass, in grams, of the carbon black;

V is the capacity, in cubic centimetres, of the cylindrical container (3.1).

6 Test report

The test report shall include the following particulars :

a) a reference to this International Standard;

b) the proper identification of the sample;

c) the result obtained and the method of expression;

d) the capacity of the cylindrical container, if not 1 000 cm^3.