
International Standard



1306

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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

Second edition — 1981-12-15

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

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

This second edition was submitted directly to the ISO Council, in accordance with clause 5.10.1 of part 1 of the Directives for the technical work of ISO. It cancels and replaces the first edition (i.e. ISO 1306-1975), which had been approved by the member bodies of the following countries :

Australia	India	South Africa, Rep. of
Austria	Iran	Spain
Brazil	Israel	Sweden
Canada	Italy	Switzerland
Czechoslovakia	Netherlands	Thailand
Egypt, Arab Rep. of	New Zealand	Turkey
France	Peru	United Kingdom
Germany, F. R.	Poland	USA
Greece	Portugal	USSR
Hungary	Romania	

No member body had expressed disapproval of the document.

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 cm³ capacity and of a recommended 100 ± 10 mm diameter, having a uniform height and no pouring lip or deformation of the wall.

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 perpendicular to and in firm contact with the edge 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 taken as 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 :

$$d = \frac{m}{1\,000}$$

where m is the mass, in grams, of the carbon black.

6 Test report

The test report shall include the following particulars :

- a reference to this International Standard;
- the proper identification of the sample;
- the result obtained and the method of expression.