
INTERNATIONAL STANDARD



1306

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Pelletized carbon black for use in the rubber industry — Determination of pour density

Noir de carbone en granules pour l'industrie des élastomères — Détermination de la masse volumique apparente

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Descriptors : rubber industry, carbon black, bulk density, measurement.

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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 45 has reviewed ISO Recommendation R 1306 and found it technically suitable for transformation. International Standard ISO 1306 therefore replaces ISO Recommendation R 1306-1970 to which it is technically identical.

ISO Recommendation R 1306 was 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	Poland	U.S.A.
Greece	Portugal	U.S.S.R.
Hungary	Romania	

No Member Body expressed disapproval of the Recommendation.

No Member Body disapproved the transformation of ISO/R 1306 into an International Standard.

Pelletized carbon black for use in the rubber industry — 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 Straight-edge 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 straight-edge 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 , is given, in grams per cubic decimetre (or kilograms per cubic metre), by the following formula :

$$D = m$$

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

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

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

where d is the pour density in grams per cubic centimetre.

6 TEST REPORT

The pour density, D , is given, in grams per cubic decimetre

- proper identification of the sample;
- the result obtained and the method of expression.