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**ISO**

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

**ISO RECOMMENDATION**

**R 1435**

PELLETIZED CARBON BLACK FOR USE IN THE RUBBER INDUSTRY

**DETERMINATION OF FINES CONTENT**

1st EDITION

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## BRIEF HISTORY

The ISO Recommendation R 1435, *Pelletized carbon black for use in the rubber industry – Determination of fines content*, 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 Draft ISO Recommendation No. 1435, which was circulated to all the ISO Member Bodies for enquiry in May 1968. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	Iran	Sweden
Austria	Ireland	Switzerland
Brazil	Israel	Turkey
Canada	Italy	U.A.R.
Colombia	Japan	United Kingdom
Czechoslovakia	Korea, Rep. of	U.S.A.
France	Netherlands	U.S.S.R.
Germany	Poland	Yugoslavia
Hungary	South Africa, Rep. of	
India	Spain	

No Member Body opposed the approval of the Draft.

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

## PELLETIZED CARBON BLACK FOR USE IN THE RUBBER INDUSTRY

## DETERMINATION OF FINES CONTENT

## 1. SCOPE

This ISO Recommendation describes a procedure for determining the fines content of all types of pelletized carbon black for use in the rubber industry.

## 2. PRINCIPLE

Accurate weighing of a quantity of pelletized carbon black and sieving through a standard screen by using shaking and tapping. Measuring, as fines, the amount of material passing through the screens.

## 3. APPARATUS

3.1 *Mechanical sieve shaker*, that has approximately the following characteristics :

3.1.1 300 ± 20 uniform rotary motions per minute.

3.1.2 An automatic hammer that taps the sieve 150 ± 10 times a minute with a kinetic energy of about 0.6 J.

3.1.3 An automatic timer.

3.2 *Sieve*, approximately 200 mm in diameter and 25 mm in height, to fit the mechanical sieve shaker. The sieve should have the characteristics described in ISO Recommendation R 565, *Woven wire cloth and perforated plates in test sieves – Nominal sizes of apertures*, and should have a nominal aperture of 125 µm.

3.3 *Bottom receiver pan*.

3.4 *Sieve cover*.

3.5 *Riffle sample splitter*, with six or more parallel troughs on each side, designed to divide a sample of carbon black into two equal parts.

3.6 *Balance* having a sensitivity of 0.1 mg.