

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 1437

CARBON BLACK FOR USE IN THE RUBBER INDUSTRY

METHOD OF TEST FOR SIEVE RESIDUE

1st EDITION

November 1970

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Printed in Switzerland

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BRIEF HISTORY

The ISO Recommendation R 1437, *Carbon black for use in the rubber industry – Method of test for sieve residue*, 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. 1437, which was circulated to all the ISO Member Bodies for enquiry in July 1968. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Australia	Hungary	Sweden
Austria	India	Switzerland
Brazil	Iran	Thailand
Canada	Israel	Turkey
Colombia	Italy	U.A.R.
Cuba	Korea, Rep. of	United Kingdom
Czechoslovakia	Netherlands	U.S.A.
France	New Zealand	U.S.S.R.
Germany	Poland	
Greece	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.

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CARBON BLACK FOR USE IN THE RUBBER INDUSTRY

METHOD OF TEST FOR SIEVE RESIDUE

1. SCOPE

This ISO Recommendation describes a procedure for determining the water wash sieve residue from regular, untreated carbon black for the rubber industry. This ISO Recommendation may not be applicable to oil-treated blacks because the oil could prevent proper wetting of the black by water.

2. PRINCIPLE

Washing of a known mass of carbon black through a test sieve by a controlled flow of water, and drying and weighing of the residue.

The test sieve aperture is chosen from the range described as required by the appropriate material specification.

3. APPARATUS

3.1 Sieving apparatus comprising the following main items :

3.1.1 *Test sieve*, on which the residue is retained. Test sieves should be of phosphor bronze or stainless steel, having the characteristics described in ISO Recommendation R 565, *Woven wire cloth and perforated plates in test sieves – Nominal sizes of apertures*, and should have nominal apertures of 500 and 45 μm .

3.1.2 *Funnel or container*, into the bottom of which the test sieve fits.

3.1.3 *Nozzle*, fed with clean water under controlled pressure by which the carbon black is washed through the sieve.

3.1.4 *Water pressure regulating device*.

3.1.5 *Filter*, in the water supply line, incorporating a wire screen at least as fine as that in the test sieve.

NOTE. — Suitable apparatus includes the Gallie-Porrit type of apparatus and that recommended in ASTM D – 1514.

3.2 *Balance*, with a sensitivity of 0.1 g.

3.3 *Analytical balance*, with a sensitivity of 0.1 mg.

3.4 *Weighing dishes*.

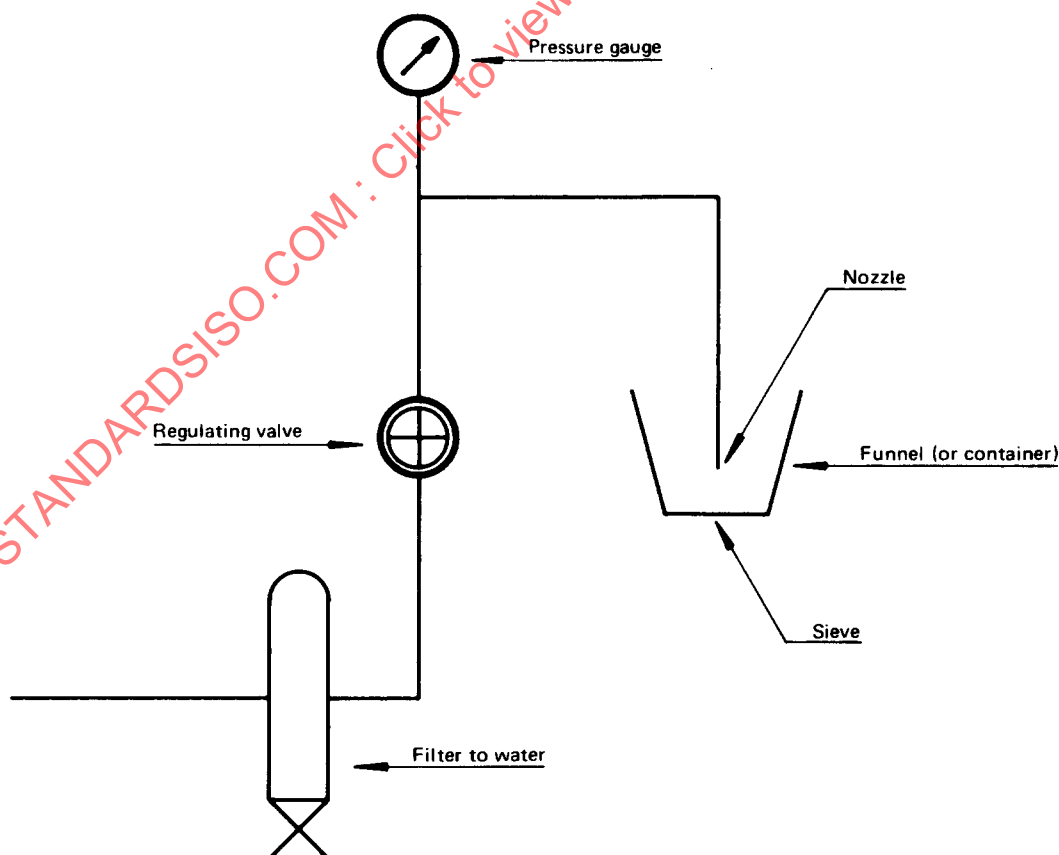


FIGURE — Schematic diagram of apparatus