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ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION
R 607

SURFACE ACTIVE AGENTS IN POWDER FORM
PREPARATION OF A REDUCED SAMPLE

1st EDITION
July 1967

For each individual country the only valid standard is the national standard of that country.

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BRIEF HISTORY

The ISO Recommendation R 607, *Surface Active Agents in Powder Form — Preparation of a Reduced Sample*, was drawn up by Technical Committee ISO/TC 91, *Surface Active Agents*, the Secretariat of which is held by the Association Française de Normalisation (AFNOR).

Work on this question by the Technical Committee began in 1961 and led, in 1963, to the adoption of a Draft ISO Recommendation.

In September 1965, this Draft ISO Recommendation (No. 835) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies:

Argentina	France	Portugal
Austria	Germany	Republic of South Africa
Belgium	Hungary	Romania
Brazil	Ireland	Spain
Canada	Italy	Switzerland
Chile	Japan	U.A.R.
Colombia	Netherlands	United Kingdom
Czechoslovakia	Poland	Yugoslavia

No Member Body opposed the approval of the Draft.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in July 1967, to accept it as an ISO RECOMMENDATION.

ISO Recommendation R 607 July 1967

SURFACE ACTIVE AGENTS IN POWDER FORM PREPARATION OF A REDUCED SAMPLE

1. SCOPE

This ISO Recommendation describes a method which enables a reduced sample of a mass over 250 g to be obtained from a bulk sample of surface active agent in powder form, and enables the reduced sample to be divided into a desired number of laboratory samples.

The method applies to powders, including spray-dried powders, particularly when they contain additives which have been introduced after the drying process. The physical mixture obtained in the latter case has a tendency to separate.

2. PRINCIPLE

Reduction of a bulk sample by a mechanical process until a reduced sample is obtained.

3. APPARATUS

The apparatus should be constructed in such a way that the two portions of the sample obtained by each dividing operation are quantitatively similar to each other and qualitatively representative of the original sample.

The apparatus which best satisfies these conditions is the *conical divider* in which the sample contained in a hopper runs on to a cone, the apex of which is situated directly beneath the middle of the opening of the hopper.

The sample running down the cone is received in receptacles which are arranged at the base of the cone and all round its edge. The even receptacles are connected at one side, and the odd receptacles at the other, thus giving two identical reduced samples.*

4. PROCEDURE

Place two receivers under the outlets of the conical divider, fill the hopper and allow the bulk sample to run on to the cone, thus dividing the bulk sample into two portions which are deposited in the two receivers.

Retain the portion of the bulk sample deposited in one of the receivers.

Pass a fresh quantity of the bulk sample through the conical divider and repeat the operation until all the bulk sample has been divided. Then pass all the powder which has been retained and corresponds to half the bulk sample through the conical divider in a similar way and repeat the operation until the bulk sample has been reduced to the desired quantity.

5. PRESERVATION OF THE REDUCED SAMPLE

The reduced sample should be placed immediately in a dark glass bottle with airtight closures. Care should be taken that the reduced sample is preserved as far as possible in its initial condition until analysis takes place. It is preferable that the analysis should be carried out as soon as possible after sampling.

If more than one laboratory sample is required, sufficient reduced sample for 2 n identical laboratory samples should be prepared, where 2 n equals or exceeds the number of laboratory samples required.

This reduced sample should then be divided into 2 n equal portions by means of the conical divider. The whole of each part should be placed immediately in a dark glass bottle with an airtight closure and any quantity surplus to requirements should be discarded.

* See Figures 1 and 2. The dimensions are given for guidance only.

Dimensions in millimetres

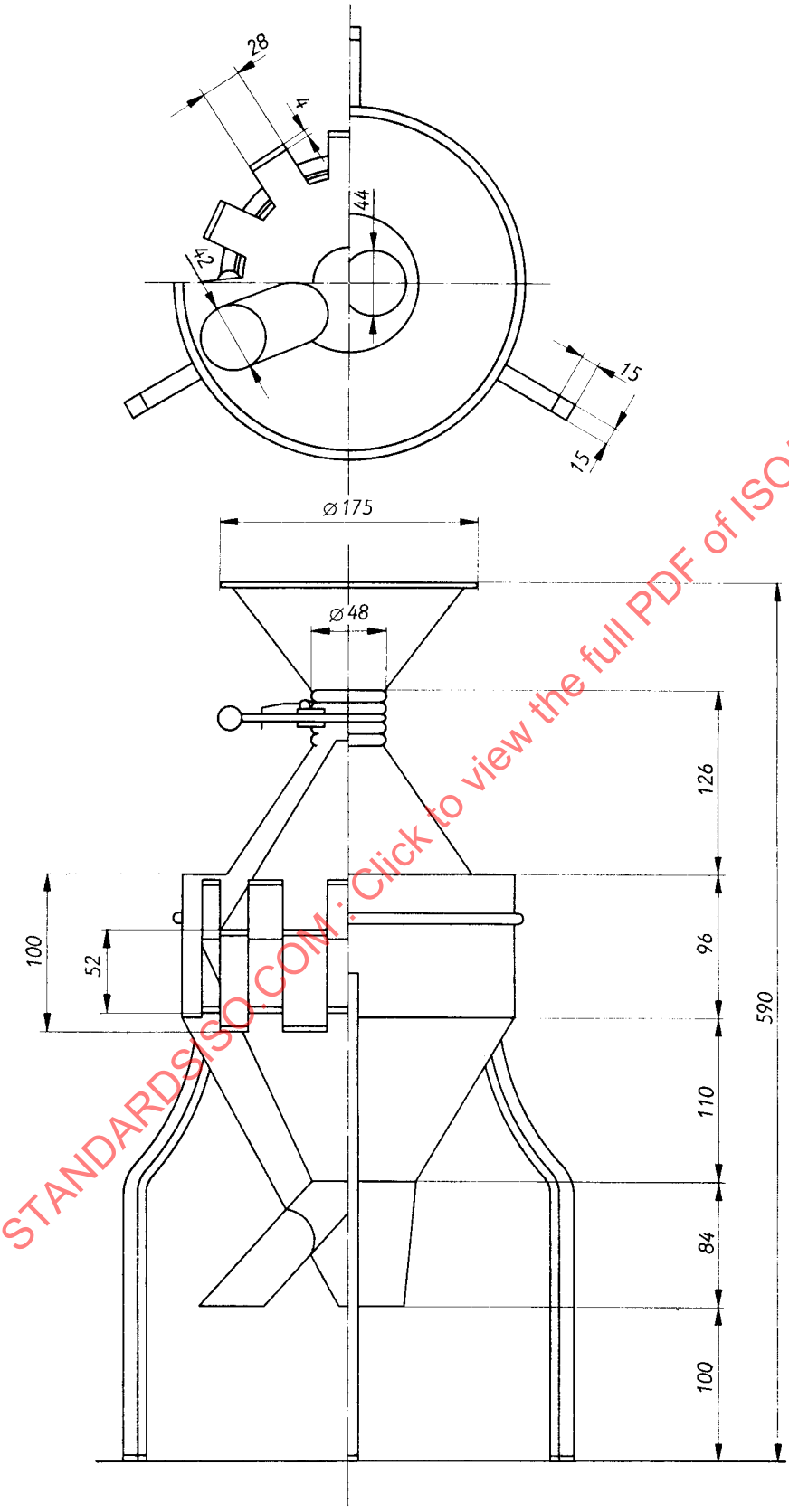

FIG. 1. — **Diagram of conical divider**