

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 335

DETERMINATION OF CAKING POWER OF COAL BY THE ROGA METHOD

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BRIEF HISTORY

The ISO Recommendation R 335, *Determination of Caking Power of Coal by the Roga Method*, was drawn up by Technical Committee ISO/TC 27, *Solid Mineral Fuels*, the Secretariat of which is held by the British Standards Institution (B.S.I.).

Work on this question by the Technical Committee began in 1953 and led, in 1957, to the adoption of a Draft ISO Recommendation.

In May 1958, this Draft ISO Recommendation (No. 239) 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:

Austria	Greece	Poland
Belgium	India	Portugal
Burma	Italy	Romania
Canada	Japan	Spain
Czechoslovakia	Mexico	Turkey
Denmark	Netherlands	United Kingdom
Germany	New Zealand	U.S.S.R.
		Yugoslavia

One Member Body opposed the approval of the Draft: France.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in August 1963, to accept it as an ISO RECOMMENDATION.

DETERMINATION OF CAKING POWER OF COAL BY THE ROGA METHOD

1. INTRODUCTION

The purpose of the Roga test, which provides one of the parameters adopted for the “International Classification of Hard Coal by Type” of the United Nations Economic Commission for Europe, is to assess the caking power of a coal under standard conditions.

Although the Roga test and the Gray-King test both assess the caking properties of a coal, they do not measure precisely the same parameters and should not therefore be regarded as alternative methods.

2. PRINCIPLE

The caking power of a coal is defined by the mechanical strength of the crucible coke obtained by carbonization under standard conditions of an intimate mixture of 1 g of coal and 5 g of standard anthracite. The crucible coke obtained is then submitted to a drum test in a strictly prescribed manner and the Roga Index is calculated from the results.

3. APPARATUS

The balance should be sensitive to 0.01 g.

3.1 Crucible. A porcelain crucible having the following dimensions:

external diameter at the top	40 ± 1.5 mm
external diameter at the base	20 ± 1.5 mm
external height	40 ± 1.5 mm
wall thickness	less than 2 mm

3.2 Lid. A heat-resistant steel plate, 55 mm square, 1.5 to 2 mm thick, with a hole 2 mm in diameter in the centre.

3.3 Stirrer, made of wire, having an 8 mm loop at one end.