ISO 15117-1:2004-05 (E)

Coal flow properties - Part 1: Bin flow

Contents

Page

Foreword iv

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Notation 4

5 Sampling and sample preparation 5
5.1 Sampling 5
5.2 Sample preparation 5
5.2.1 General 5
5.2.2 Sample top size 6
5.2.3 Sample division 6
5.2.4 Moisture content 6

6 Determination of yield locus 6
6.1 Apparatus 6
6.2 Instantaneous yield locus 6
6.2.1 General 6
6.2.2 Preconsolidation of the sample 7
6.2.3 Shear consolidation 8
6.2.4 Shearing of the sample 9
6.2.5 Determination of the complete family of instantaneous yield loci 10
6.3 Other yield loci 10
6.3.1 High-pressure yield locus 10
6.3.2 Time yield locus 10
6.3.3 Temperature yield locus 12
6.3.4 Vibration yield locus 12
6.4 Reporting and presentation of results 12
6.4.1 General 12
6.4.2 Prorating procedure 13
6.4.3 Determination of the instantaneous flow function 13
6.5 Acceptance of results and precision of the determination 14

7 Determination of wall yield locus 15
7.1 Principle 15
7.2 Apparatus 15
7.3 Sample 15
7.4 Procedure 15
7.5 Calculations 16
7.6 Determination of wall friction angle () 17
7.7 Precision of determination 17

8 Determination of bulk density/compressibility 18
8.1 General 18
8.2 Apparatus 18
8.3 Sample 18
8.4 Procedure 18
8.5 Calculations 19
8.6 Presentation of results 19
8.7 Precision of determination 19

Annex A (informative) Bin design philosophy 23