

Pendulum testers —

Part 3: Method of calibration

ICS 19.060 | 93.080.99

Committees responsible for this British Standard

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British Ceramic Research Ltd.
Department of Transport, Local Government and the Regions —
represented by the Building Research Establishment
Health and Safety Executive
Health and Safety Laboratory
London Transport
RAPRA Technology Ltd.
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Contents

	Page
Foreword	ii
1 Scope	1
2 Normative references	1
3 Terms, definitions and abbreviations	1
4 General	1
5 Pre-calibration validation	1
6 Detailed condition check	2
7 Checking/setting the centre of gravity of the pendulum arm and slider assembly	2
8 Checking/setting the effective spring tension	3
9 Checking/setting the levelness of the frame	4
10 Final calibration	5
11 Calibration report and marking	5
Annex A (informative) Measuring the slider force/deflection characteristics	6
Annex B (informative) Recommended checklist for the pre-calibration condition check	8
Bibliography	9
Figure 1 — Pendulum arm, showing the location of the centre of gravity	3
Figure A.1 — Envelope for slider force/deflection characteristics	7

Foreword

Publishing information

This part of BS 7976 is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 20th August 2002. It was prepared by Technical Committee B/556, *Coordinating pedestrian slip resistance*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

BS 7976-3:2002+A1:2013 supersedes BS 7976-3:2002, which is withdrawn.

Information about this document

BS 7976 was prepared to meet the need for a definitive method of both operation and calibration of the pendulum tester. This part of BS 7976 specifies a method of calibration. The features, dimensions and characteristics of the pendulum tester are specified in BS 7976-1, and a method of operation for this pendulum tester is specified in BS 7976-2.

This standard describes general procedures applicable to all surfaces. Specific procedures for road and airfield surfaces are covered in BS EN 13036-4.

Since the publication of this standard in 2002, work has commenced in CEN/TC 339 to develop a European test, which has lead to the publication of CEN/TS 16165, which, on publication as a European Standard might eventually supersede this part of BS 7976.

The start and finish of text introduced or altered by Amendment No. 1 is indicated in the text by tags **A1** **A1**. Minor editorial changes are not tagged.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 9 and a back cover.

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1 Scope

This part of BS 7976 specifies a method of calibration of the pendulum tester specified in BS 7976-1. It is applicable for all uses of the pendulum tester.

[A1] This standard does not apply to the specific procedures for road and airfield surfaces in BS EN 13036-4, or to the use of the pendulum test as described in current product standards. **[A1]**

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 6100-1, *Glossary of building and civil engineering terms — Part 1: General and miscellaneous*.

BS 7976-1, *Pendulum testers — Part 1: Specification*.

BS 7976-2, *Pendulum testers — Part 2: Method of operation*.

3 Terms, definitions and abbreviations

For the purposes of this part of BS 7976 the terms, definitions and abbreviations given in BS 6100-1, BS 7976-1 and BS 7976-2 apply.

4 General

When carrying out the calibration, the pendulum tester shall be operated in accordance with BS 7976-2, under wet conditions as specified in BS 7976-2:2002, **6.1.2**, except that instead of potable water as specified in BS 7976-2:2002, **4.6**, de-ionized or distilled water shall be used.

NOTE 1 Wet conditions are recognized as yielding results that are significantly more reproducible than those obtained under dry conditions.

NOTE 2 Calibration should be carried out after manufacture and at intervals thereafter of no greater than twelve months.

NOTE 3 In addition to the tests specified in Clauses **5**, **6**, **7**, **8** and **9**, a further test may be carried out to measure the slider force/deflection characteristics. This test is described in Annex A. It is recommended that this test is carried out as part of the calibration procedure, following the procedure specified in Clause **9**, as it can highlight possible faults with the instrument. The test is relatively new, and as yet there is insufficient data regarding the precise shape of the conformatory envelope to include it in the main body of the standard.

5 Pre-calibration validation

NOTE The purpose of the initial validation is to assess and record the condition of the pendulum tester prior to calibration.

5.1 Visual and mechanical check

Carry out a visual check of the assembled pendulum tester to determine whether there is any obvious damage that requires repair prior to calibration. Swing the pendulum arm to see if there are any obvious mechanical defects.

5.2 Performance check

5.2.1 Apparatus

5.2.1.1 *Dedicated Four-S rubber slider*¹⁾, conforming to the properties for Four-S rubber specified in BS 7976-1:2002, Table 1, that has been stored in accordance with BS 7976-2:2002, Clause **9** and initially prepared in accordance with BS 7976-2:2002, **5.2.2.1**.

5.2.1.2 *Two dedicated sheets of float glass* (not less than 200 mm × 150 mm). One face of sheet 1 shall be used as the test reference surface (TRS1) and labelled as such.

NOTE 1 When not in use, protect the test surface to prevent scratching.

NOTE 2 Clean the test surface prior to use, first with water followed by methylated spirits or methanol, and then dry it thoroughly using a clean, lint-free cloth.

¹⁾ For information on the availability of Four-S and TRL rubbers, contact BSI Customer Services, British Standards House, 389 Chiswick High Road, London W4 4AL.