

Specification for

Rees-hugill powder density flask

UDC 542.3:531.754

Confirmed November 2011

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

BSI
Documents

AVA

Document Sharing Hub

Co-operating organizations

The Scientific Glassware and Related Laboratory Apparatus Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- Admiralty*
- Air Ministry
- Association of British Chemical Manufacturers*
- Association of Scientific Workers
- Board of Trade
- British Association for the Advancement of Science*
- British Chemical Ware Manufacturers' Association*
- British Laboratory Ware Association*
- British Lampblown Scientific Glassware Manufacturers' Association*
- British Pharmacopœia Commission
- British Scientific Instrument Research Association
- Chemical Society
- Department of the Government Chemist*
- D.S.I.R. — Chemical Research Laboratory
- Glass Manufacturers' Federation*
- Institute of Petroleum*
- Ministry of Education
- Ministry of Health*
- Ministry of Supply*
- National Physical Laboratory*
- Oil Companies Materials Committee
- Pharmaceutical Society of Great Britain
- Royal Institute of Chemistry*
- Science Masters' Association
- Society for Analytical Chemistry*
- Society of Chemical Industry
- Society of Glass Technology*
- Standardization of Tar Products Tests Committee*

The Government departments and scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

- Association of Hospital Management Committees
- Guild of Public Pharmacists
- High Commission of India
- Metropolitan Water Board
- University of London (Faculty of Science)
- Individual manufacturers

This British Standard, having been approved by the Scientific Glassware and Related Laboratory Apparatus Industry Standards Committee and endorsed by the Chairman of the Chemical Divisional Council, was published under the authority of the General Council on 26 April 1956

© BSI 04-2000

The following BSI references relate to the work on this standard:
Committee reference LBC/1
Draft for comment CT (LBC) 4848

ISBN 0 580 34406 1

Amendments issued since publication

Amd. No.	Date of issue	Comments
5496	April 1965	Indicating by a sideline in the margin

Contents

	Page
Co-operating organizations	Inside front cover
Foreword	ii
1 Scope	1
2 Range	1
3 Material	1
4 Construction	1
5 Dimensions	2
6 Capacity	2
7 Tolerance on capacity	2
8 Graduation marks	3
9 Length and numbering of graduation marks	3
10 Inscriptions	3
Appendix A Capacities measured above the datum mark corresponding to numbered graduation marks	4
Appendix B Method of use rees-hugill powder density flask	4
Appendix C Testing of British Standard rees-hugill flask	5
Figure 1 — General design of Rees-Hugill flask	6
Figure 2 — Suitable scale for Rees-Hugill flask	7
Table 1	1
Table 2 — Mandatory dimensions for rees-hugill powder density flakes	2
Table 3 — Recommended dimensions for rees-hugill powder density flasks	2
Table 4 — Neck capacities for rees-hugill powder density flasks	2

Foreword

This British Standard has been prepared under the authority of the Scientific Glassware and Related Laboratory Apparatus Industry Standards Committee to cover the requirements of the refractories industry for apparatus for the rapid and accurate determination of the density of powdered or granular materials.

This type of flask was first described by the late Dr. W. J. Rees and the late Mr. W. Hugill (Trans. Brit. Ceram. Soc., **24**, 70, 1925). Manufacturers and users of silica refractories to whom a knowledge of the density of such refractories is important, in that it affords a good indication of the extent of quartz conversion, quickly recognized the value of this flask, for it enabled them to determine the powder density of a silica brick far more quickly than hitherto and with a minimum of apparatus. It is sometimes of value to know the powder density of other types of refractory, e.g. dead-burned magnesite and magnesite bricks, and the use of the flask has thus been extended; originally this was done by the provision of flasks to cover various ranges of density, but the present standard describes a flask for one range only (2.00–2.70 g/ml), powders of density outside this range being tested by taking an appropriate weight of sample and applying a conversion factor.

The use of the flask outside the refractories industry has been rather limited, but may well be extended when its convenience in control testing is more widely known.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 7 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.