INTERNATIONAL STANDARD 1772

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Laboratory crucibles in porcelain and silica

Creusets de laboratoire en porcelaine et en silice

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 48 has reviewed ISO Recommendation R 1772 and found it technically suitable for transformation. International Standard ISO 1772 therefore replaces ISO Recommendation R 1772-1970 to which it is technically identical.

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ISO Recommendation R 1772 was approved by the Member Bodies of the following countries :

Austria	India	South Africa, Rep. of
Belgium	Iran	Spain
Canada	Ireland	Thailand
Colombia	Italy	Turkey
Czechoslovakia	Korea, Dem. P. Rep. of	United Kingdom
Egypt, Arab Rep. of	Netherlands	U.S.A.
France	New Zealand	U.S.S.R.
Germany	Peru	Yugoslavia
Greece	Poland	

No Member Body expressed disapproval of the Recommendation.

No Member Body disapproved the transformation of ISO/R 1772 into an International Standard.

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Laboratory crucibles in porcelain and silica

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies requirements for an internationally acceptable series of porcelain and silica crucibles and lids for general laboratory requirements.

NOTES

1 It is recognized that some sizes of crucible larger than those listed may be needed for use in laboratories for special purposes. It is recommended that such larger sizes should be designed within the general framework of this International Standard, i.e. by selecting a suitable multiple of 10 mm as the nominal external top diameter, and applying one of the three standard ratios in order to obtain the nominal height.

2 This International Standard does not deal with laboratory crucibles made of materials other than porcelain and silica (for example, glass and other ceramic materials, metals, plastics materials). Nevertheless, it is expected that the types, sizes and dimensions specified herein may provide useful guidance for those concerned with the manufacture or standardization of crucibles made of such other materials, and that it may become possible to include them in this International Standard at some future date.

2 REFERENCE

ISO 1775, *Porcelain laboratory apparatus — Requirements and methods of test.*

3 TYPES OF CRUCIBLE

Three types of crucibles are described, as follows :

a) **Type 1 : Low form,** based on a height/diameter ratio of 0,63 (see figure 1 a))

b) **Type 2 : Medium form,** based on a height/diameter ratio of 0,8 (see figure 1 b))

c) **Type 3 : Tall form,** based on a height/diameter ratio of 1,25 (see figure 1 c))

4 TYPES OF LID

Two types of lid are described, as follows :

a) **Type D :** a lid of slightly domed shape (see figure 2 a))

b) **Type R :** a recessed lid (see figure 2 b))

5 SERIES OF SIZES

The series of sizes of crucibles shall be as shown in the table.

NOTE — No values of nominal capacity are specified, but it is recommended that manufacturers should state these for the information of users, on the basis that :

nominal capacity = approximately 75 % of overflow capacity.

6 MATERIAL

6.1 Porcelain crucibles and lids shall be made from vitrified porcelain with a glazed surface, but the bases and rims of the crucibles need not necessarily be glazed. The porcelain used shall satisfy the requirements of ISO 1775.

NOTE — The sizes and dimensions included in this International Standard may also conveniently be applied to crucibles of unglazed porcelain.

6.2 Silica crucibles and lids shall be made from vitreous silica, either translucent or transparent.

7 DETAILS OF CONSTRUCTION

7.1 General design

The general design of the crucibles is illustrated in figure 1; that of the lids is shown in figure 2.

7.2 Stability

The crucibles shall stand upright without rocking or spinning when placed on a level surface.

7.3 Provision for lifting lids

At the centre of the upper surface of the domed lid there shall be a ring or a protuberance with a hole in it, so that the lid may be conveniently lifted with crucible tongs or supported by a piece of wire.

The recessed lid shall be extended at one side into a flattened lip suitable for lifting with crucible tongs.

NOTE — The designs illustrated in figure 2 are suitable but alternative designs serving the same purpose are equally acceptable.

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