INTERNATIONAL STANDARD

ISO 565

Third edition
1990-07-15

Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings

Tamis de contrôle — Tissus métalliques, tôles métalliques perforées et feuilles électroformées — Dimensions nominales des ouvertures

Reference number
ISO 565:1990(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 565 was prepared by Technical Committee ISO/TC 24, *Sieves, sieving and other sizing methods*.

This third edition cancels and replaces the second edition (ISO 565:1983), of which it constitutes a technical revision (see the Introduction).

Annex A of this International Standard is for information only.

International Organization for Standardization
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Introduction

When test sieves of electroformed sheet were incorporated in the second edition of ISO 565 which was published in 1983, the range of sizes of openings were extended down to 5 µm by introducing the values of the R′10 series, in accordance with ISO 497, for all principal sizes from 32 µm and smaller.

In the meantime it has been recognized that there is little call for some of the smaller sizes of openings in metal wire cloth and in electroformed sheet. It was agreed therefore to delete the supplementary sizes 28 µm and 22 µm and the principal sizes 12,5 µm, 8 µm and 6,3 µm from the tables of nominal sizes of openings.

Apart from these omissions, the ratio of successive sizes in the series is as shown in table 0.1.

Table 0.1

Series ISO 3 and ISO 497	Step	Ratio
R 20/3	about 40 %	1,40
R′10	about 25 %	1,25
R 40/3	about 19 %	1,19
R 20	about 12 %	1,12

This International Standard will be further revised if it becomes evident that one of the supplementary series given in table 1 and table 2, namely R 20 or R 40/3, has found sufficient general and worldwide recognition that it is no longer necessary to include both series.

Requirements for test sieves, for example tolerances on sizes of openings and methods for verification, are given in ISO 3310-1, ISO 3310-2 and ISO 3310-3.

This page intentionally left blank

Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings

1 Scope

This International Standard specifies the nominal sizes of openings for metal wire cloth, perforated metal plate and electroformed sheet as sieving media in test sieves.

It applies to

— metal wire cloth with square openings;

— perforated metal plate and electroformed sheet with square or circular openings.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2395:1972, *Test sieves and test sieving — Vocabulary*.

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 2395 apply.

4 Designation

4.1 Sieving media in test sieves shall be designated by the nominal size of the openings (central separation of opposite sides or diameter). For perforated metal plate and electroformed sheet, the type of opening, square or circular (round), shall also be stated.

4.2 Sizes of openings of 1 mm and above shall be expressed in millimetres (mm); sizes of openings below 1 mm shall be expressed in micrometres (µm).

5 Nominal sizes of openings

The nominal sizes of openings listed in table 1 and table 2 have the following ranges of application:

a) for metal wire cloth: from 125 mm to 20 µm

b) for perforated metal plate

   — with square holes: from 125 mm to 4 mm

   — with circular holes: from 125 mm to 1 mm

c) for electroformed sheet with square or circular apertures: from 500 µm to 5 µm.

It is recommended that the principal sizes be used where possible, but that if a series having smaller steps is required it should be drawn from only one of the supplementary series and not from both, i.e. from either R 20 or R 40/3.

Table 1 — Millimetre sizes

Principal sizes	Supplementary sizes	
R 20/3	R 20	R 40/3
125	125	125
	112	
		106
	100	
90	90	90
	80	
		75
	71	
63	63	63
	56	
		53
	50	
45	45	45
	40	
		37,5
	35,5	
31,5	31,5	31,5
	28	
		26,5
	25	
22,4	22,4	22,4
	20	
		19
	18	
16	16	16
	14	
		13,2
	12,5	
11,2	11,2	11,2
	10	
		9,5
	9	
8	8	8
	7,1	
		6,7
	6,3	
5,6	5,6	5,6
	5	
		4,75
	4,5	
4	4	4
	3,55	
		3,35
	3,15	
2,8	2,8	2,8
	2,5	
		2,36
	2,24	
2	2	2
	1,8	
		1,7
	1,6	
1,4	1,4	1,4
	1,25	
		1,18
	1,12	
1	1	1

Table 2 — Micrometre sizes

Principal sizes	Supplementary sizes	
R 20/3	R 20	R 40/3
	900	
		850
	800	
710	710	710
	630	
		600
	560	
500	500	500
	450	
		425
	400	
355	355	355
	315	
		300
	280	
250	250	250
	224	
		212
	200	
180	180	180
	160	
		150
	140	
125	125	125
	112	
		106
	100	
90	90	90
	80	
		75
	71	
63	63	63
	56	
		53
	50	
45	45	45
	40	
		38
	36	

R′10
32
25
20
16
10
5

Annex A
(informative)

Bibliography

[1] ISO 3:1973, *Preferred numbers — Series of preferred numbers.*

[2] ISO 497:1973, *Guide to the choice of series of preferred numbers and of series containing more rounded values of preferred numbers.*

[3] ISO 3310-1:1990, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth.*

[4] ISO 3310-2:—[1], *Test sieves — Technical requirements and testing — Part 2: Test sieves of perforated metal plate.*

[5] ISO 3310-3:1990, *Test sieves — Technical requirements and testing — Part 3: Test sieves of electroformed sheets.*

1) To be published. (Revision of ISO 3310-2:1982.)

UDC 621.928.028

Descriptors: test equipment, sieves, wire cloth, sieve plates, openings, dimensions, hole size.

Price based on 3 pages