
International Standard



565

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

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

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (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 authorized 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.

International Standard ISO 565 was developed by Technical Committee ISO/TC 24, *Sieves, sieving and other sizing methods*, and was circulated to the member bodies in July 1982.

It has been approved by the member bodies of the following countries :

Australia	India	South Africa, Rep. of
Belgium	Italy	Spain
Canada	Mexico	Switzerland
Egypt, Arab Rep. of	Norway	United Kingdom
France	Portugal	USA
Germany, F. R.	Romania	USSR

No member body expressed disapproval of the document.

This second edition cancels and replaces the first edition (i.e. ISO 565-1972).

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

0 Introduction

The first edition of ISO 565, published in 1972, contained principal sizes and supplementary sizes for openings in metal wire cloth and perforated plate in test sieves from 125 mm to 20 µm. In the meantime it was recognized that uses of electroformed sheet for test sieving of still smaller particles have increased worldwide. It has been decided, therefore, to incorporate electroformed sheet in this International Standard and to extend the tables of nominal aperture sizes down to 5 µm.

Taking into consideration the aperture sizes of electroformed sheet currently available, it was necessary to change from the R 20/3 to the R' 10 series for all principal aperture sizes from 32 µm and smaller.

In view of the smallness of the interval between successive principal sizes below 32 µm, the choice of supplementary sizes is restricted to the R 20 series.

The ratio of successive sizes in the series is as follows :

Series	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

A further revision of this International Standard will be made if it becomes evident that one of the supplementary series given in tables 1 and 2, namely R 20 or R 40/3, has found sufficient general and worldwide recognition for only that one to be required for an International Standard. Meanwhile, it is recommended that the principal sizes be used where possible, but that if a closer series is required it should be drawn from one of the supplementary series only, R 20 or R 40/3, and not from both.

For woven metal wire cloth and perforated plate, the requirements on test sieves, for example admissible tolerances on aperture sizes, and methods for verification are given in ISO 3310/1 and ISO 3310/2. Requirements pertaining to electroformed sheet will be specified in a subsequent International Standard.

1 Scope and field of application

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

It applies to

- metal wire cloth with square openings;
- perforated plate and electroformed sheet with square or circular openings.

2 References

ISO 3, *Preferred numbers — Series of preferred numbers.*

ISO 497, *Guide to the choice of series of preferred numbers and of series containing more rounded values of preferred numbers.*

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

ISO 3310, *Test sieves — Technical requirements and testing —*

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ISO 565:1983 Part 1 : Test sieves of metal wire cloth,
<https://standards.iteh.ai/catalog/standards/sist/1e3b1d80-63a3-45cb-b29f-143278b1eb7/iso-565-1983>
Part 2 : Test sieves of metal perforated plate.

3 Definitions of type of sieving media in test sieves

3.1 woven wire cloth : A sieving medium of wires which cross each other to form the apertures (see ISO 2395).

3.2 perforated plate : A sieving medium consisting of a plate with uniform holes in symmetrical arrangement (see ISO 2395).

3.3 electroformed sheet : A sieving medium of metal sheet with uniform apertures in regular arrangement produced by electrochemical methods.

4 Designation

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

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

5 Nominal sizes of openings

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

a) for woven wire cloth from 125 mm to 20 µm

b) for perforated 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

Millimetre sizes

Table 1

Table 2

Principal sizes	Supplementary sizes	Principal sizes	Supplementary sizes
mm	mm	mm	mm
(R 20/3)	(R 20)	(R 20/3)	(R 40/3)
125	125 112	125	125
	100		106
90,0	90,0 80,0	90,0	90,0
	71,0		75,0
63,0	63,0 56,0	63,0	63,0
	50,0		53,0
45,0	45,0 40,0	45,0	45,0
	35,5		37,5
31,5	31,5 28,0	31,5	31,5
	25,0		26,5
22,4	22,4 20,0	22,4	22,4
	18,0		19,0
16,0	16,0 14,0	16,0	16,0
	12,5		13,2
11,2	11,2 10,0	11,2	11,2
	9,00		9,50
8,00	8,00 7,10	8,00	8,00
	6,30		6,70
5,60	5,60 5,00	5,60	5,60
	4,50		4,75
4,00	4,00 3,55	4,00	4,00
	3,15		3,35
2,80	2,80 2,50	2,80	2,80
	2,24		2,36
2,00	2,00 1,80	2,00	2,00
	1,60		1,70
1,40	1,40 1,25	1,40	1,40
	1,12		1,18
1,00	1,00	1,00	1,00

Micrometre sizes

Table 1

Table 2

Principal sizes	Supplementary sizes	Principal sizes	Supplementary sizes
µm	µm	µm	µm
(R 20/3)	(R 20)	(R 20/3)	(R 40/3)
	900		850
	800		710
710	710 630	710	710
	560		600
500	500 450	500	500
	400		425
	355	355	355
	315		300
	280		250
250	250 224	250	250
	200		212
	180		180
	160	180	180
	140		150
125	125 112	125	125
	100		106
90	90 80	90	90
	71		75
63	63 56	63	63
	50		53
45	45 40	45	45
	36		38
		(R'10)	
	32	32	32
	28		
25	25 22	25	25
	20		
20	20	20	20
	16		16
12,5	12,5	12,5	12,5
	10		10
8	8	8	8
6,3	6,3	6,3	6,3
5	5	5	5