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# International Standard



# 4783/2

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Industrial wire screens and woven wire cloth — Guide to the choice of aperture size and wire diameter combinations —

### Part 2 : Preferred combinations for woven wire cloth

*Tamis et tissus métalliques industriels — Guide pour le choix des combinaisons d'ouverture de maille et de diamètre du fil —  
Partie 2 : Combinaisons préférentielles pour tissus non préformés*

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[ISO 4783-2:1981](https://standards.iteh.ai/catalog/standards/sist/60dc6f28-b0bc-414e-8d05-ab966c3963be/iso-4783-2-1981)

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Descriptors : openings, sizing screens, wire cloth, dimensions.

## 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.

International Standard ISO 4783/2 was developed by Technical Committee ISO/TC 24, *Sieves, sieving and other sizing methods*, and was circulated to the member bodies in November 1979.

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

Canada	Netherlands	United Kingdom
Egypt, Arab Rep. of	Portugal	USA
France	Romania	USSR
Germany, F.R.	South Africa, Rep. of	Yugoslavia
India	Spain	
Ireland	Switzerland	

No member body expressed disapproval of the document.

# Industrial wire screens and woven wire cloth — Guide to the choice of aperture size and wire diameter combinations —

## Part 2 : Preferred combinations for woven wire cloth

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### 1 Scope and field of application

This part of ISO 4783 tabulates preferred combinations of aperture size and wire diameter for industrial woven wire cloth which are taken from the general list of aperture/wire combinations given in ISO 4783/1.

It applies to woven wire cloth of aperture size from 16 to 0,020 mm.

NOTE — This is the first International Standard on woven wire cloth for industrial purposes; these specifications are a compromise which takes account of existing national standards. ISO Member Bodies are earnestly requested to rationalize further in order to reduce the number of wire diameters per aperture width within the next 5 years without excluding the option of increasing the number of preferred apertures.

Part 3 of this International Standard gives the preferred combinations for pre-crimped or pressure-welded wire screens.

### 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 2194, *Wire screens and plate screens for industrial purposes — Nominal sizes of apertures.*

ISO 4782, *Industrial wire screens and woven wire cloth — Diameters of metal wire.*

ISO 4783/1, *Industrial wire screens and woven wire cloth — Guide to the choice of aperture size and wire diameter combinations — Part 1 : Generalities.*

ISO 4783/3, *Industrial wire screens and woven wire cloth — Guide to the choice of aperture size and wire diameter combinations — Part 3 : Preferred combinations for pre-crimped or pressure-welded wire screens.*

### 3 Designation

Woven wire cloth for industrial purposes shall be designated in the following sequence by

- a) width of aperture  $w$ ;
- b) diameter of wire  $d$ ;
- c) material of wire;
- d) type of weave (see figure 2).

### 4 Aperture size and wire diameter combinations

Table 1 lists the preferred combinations of aperture size and wire diameter for woven wire cloth and states the open area  $A_o$  and the mass per square metre,  $\rho_A$ , for each combination.

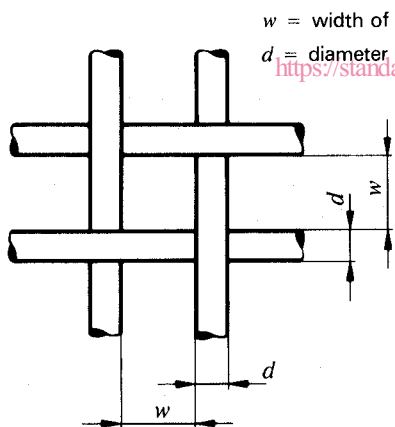


Figure 1 — Width of aperture and diameter of wire

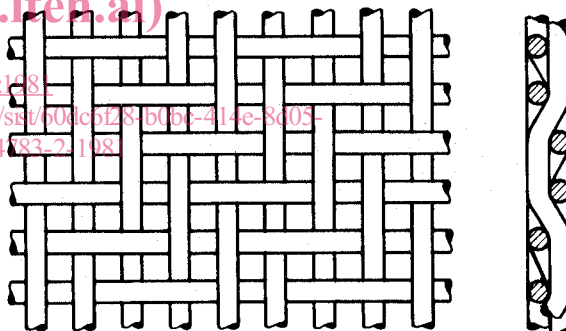
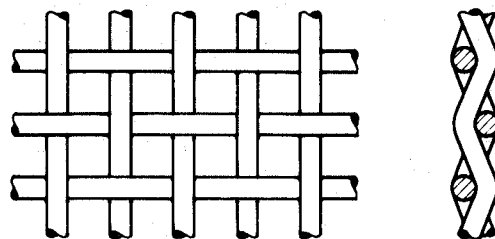


Figure 2 — Types of weave

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Table 1 — Preferred aperture size and wire diameter combinations

Width of aperture			Diameter of wire <i>d</i> mm	Open area <i>A<sub>o</sub></i> %	Mass <sup>1)</sup> per unit area <i>ρ<sub>A</sub></i> kg/m <sup>2</sup>	Width of aperture			Diameter of wire <i>d</i> mm	Open area <i>A<sub>o</sub></i> %	Mass <sup>1)</sup> per unit area <i>ρ<sub>A</sub></i> kg/m <sup>2</sup>			
R 10 <i>w</i> mm	R 20 <i>w</i> mm	R 40/3 <i>w</i> mm				R 10 <i>w</i> mm	R 20 <i>w</i> mm	R 40/3 <i>w</i> mm						
16	16	16	1,60	83	1,85	6,3	6,3	6,7	0,900	79	1,29			
			1,80	81	2,31				1,12	75	1,94			
			2,00	79	2,82				1,25	72	2,38			
			2,24	77	3,49				1,40	70	2,93			
			3,15	70	6,58				1,60	67	3,74			
			3,55	67	8,19				1,80	64	4,62			
	14		1,40	83	1,62				2,00	61	5,58			
			1,80	79	2,60				1,80	62	4,84			
			2,24	74	3,92				3,15	46	12,80			
			2,80	69	5,93				6,3	6,3		0,800	79	1,14
12,5	12,5		2,80	68	6,22	1,00	74	1,74						
			1,25	83	1,44	1,12	72	2,15						
			1,60	79	2,31	1,40	67	2,23						
			1,80	76	2,88	1,80	60	5,08						
			2,00	74	3,50	2,00	58	6,12						
			2,24	72	4,31	2,24	54	7,46						
	11,2	11,2	2,80	67	6,51	2,50	51	9,02	2,80	48	10,94			
			1,12	83	1,29	3,15	44	13,34	5,6	5,6		0,710	79	1,01
			1,25	81	1,59	0,800	77	1,27						
			1,40	79	1,98	0,900	74	1,58						
			1,80	74	3,17	1,12	69	2,37						
			2,00	72	3,85	1,25	67	2,90						
			2,24	69	4,74	1,40	64	3,56						
			2,50	67	5,79	1,60	60	4,52						
			2,80	64	7,11	1,80	57	5,56						
			3,15	61	8,78	2,24	51	8,13						
			3,55	57	10,58	0,710	77	1,12						
			10	10		1,12	81	1,43				0,900	72	1,74
1,40	77	2,18				1,00	69	2,12						
1,60	74	2,80				1,25	64	3,18						
1,80	72	3,49				1,40	61	3,89						
2,00	69	4,23				1,60	57	4,93						
2,50	64	6,35				1,80	54	6,05						
		9,5				1,40	76	2,28	2,00	51	7,26			
			1,80	71	3,64	2,24	48	8,80						
			2,00	68	4,42	2,50	44	10,58						
			2,24	65	5,43	2,80	41	12,77						
			2,50	63	6,61	4,75			0,900	71	1,82			
			2,80	60	8,09				1,25	63	3,31			
			3,15	56	9,96				1,40	60	4,05			
3,55	53	12,27	1,60	56	5,12									
1,00	81	1,27	1,80	53	6,28									
1,25	77	1,94	2,00	50	7,53									
1,40	75	2,39	2,24	46	9,12									
8	8	8	1,60	73	3,07	2,50	43	10,95						
			1,80	69	3,81	2,80	40	13,19						
			2,24	64	5,67	4,5			0,630	77	0,98			
			1,00	79	1,41				0,800	72	1,53			
			1,25	75	2,15				0,900	69	1,91			
			1,40	72	2,65				1,00	67	2,31			
1,60	69	3,39	1,12	64	2,83									
1,80	67	4,20	1,25	61	3,45									
2,00	64	5,08	1,40	58	4,22									
2,24	61	6,22	1,60	54	5,33									
2,50	58	7,56	1,80	51	6,53									
2,80	55	9,22	2,00	48	7,82									
						2,24	45	9,46						

1) For plain steel wire,  $\rho = 7\,850\text{ kg/m}^3$  (see clause 5).

Table 1 — Preferred aperture size and wire diameter combinations (continued)

Width of aperture			Diameter of wire <i>d</i> mm	Open area <i>A<sub>o</sub></i> %	Mass <sup>1)</sup> per unit area <i>ρ<sub>A</sub></i> kg/m <sup>2</sup>	Width of aperture			Diameter of wire <i>d</i> mm	Open area <i>A<sub>o</sub></i> %	Mass <sup>1)</sup> per unit area <i>ρ<sub>A</sub></i> kg/m <sup>2</sup>						
R 10 <i>w</i> mm	R 20 <i>w</i> mm	R 40/3 <i>w</i> mm				R 10 <i>w</i> mm	R 20 <i>w</i> mm	R 40/3 <i>w</i> mm									
4	4	4	0,560	77	0,87	2	2	2	0,315	74	0,60						
			0,630	75	1,09				0,400	69	0,85						
			0,710	72	1,36				0,560	61	1,56						
			0,900	67	2,10				0,630	58	1,92						
			1,00	64	2,54				0,710	54	2,36						
			1,12	61	3,11				0,900	48	3,55						
			1,25	58	3,78				1,00	44	4,23						
			1,40	55	4,61				1,25	38	6,11						
	3,55		0,500	77	0,78		1,8		0,315	72	0,60						
			0,560	75	0,97				0,355	70	0,74						
			0,630	72	1,21				0,400	67	0,92						
			0,800	67	1,87				0,500	61	1,38						
			0,900	64	2,31				0,560	58	1,69						
			1,00	61	2,79				0,630	55	2,07						
			1,12	58	3,41				0,800	48	3,13						
			1,25	55	4,13					1,7		0,400	66	0,97			
0,560	73	1,02	0,630	53	2,16												
0,900	62	2,42	0,800	46	3,25												
1,25	53	4,31	1,12	36	5,65												
3,15	3,15		0,450	77	0,71	1,6	1,6					0,280	72	0,53			
			0,500	74	0,87							0,315	70	0,66			
			0,560	72	1,07							0,355	67	0,82			
			0,710	67	1,66							0,450	61	1,25			
			0,800	64	2,05				0,500	58	1,51						
			0,900	60	2,54				0,560	55	1,84						
			1,12	54	3,73				0,630	51	2,26						
			1,25	51	4,51				0,710	48	2,77						
	2,8	2,8	0,450	74	0,79		1,4		0,250	72	0,48						
			0,500	72	0,96				0,315	67	0,73						
			0,560	69	1,19				0,450	57	1,39						
			0,710	64	1,82				0,560	51	2,03						
			0,800	60	2,26				0,630	48	2,48						
			0,900	57	2,78				0,710	44	3,03						
			1,12	51	4,06				0,900	37	4,47						
			1,60	40	7,39				1,25	28	7,49						
			1,80	37	8,95				1,25	1,25		0,250	69	0,53			
			2,00	34	10,85							0,280	67	0,65			
				2,5								0,400	74	0,70	0,315	64	0,81
												0,450	72	0,87	0,400	57	1,23
0,500	69	1,06				0,500	51	1,81									
0,630	64	1,61				0,560	48	2,20									
0,710	61	1,99				0,630	44	2,68									
0,800	57	2,46				0,800	37	3,96									
0,900	54	3,08					1,18		0,450	52	1,58						
1,00	51	3,63							0,630	43	2,78						
	2,36								0,800	56	2,57	0,800	36	4,11			
									1,00	49	3,78	1,00	29	5,83			
									1,80	32	9,89		1,12		0,250	67	0,58
										2,24					0,355	75	0,62
			0,400	72	0,77										0,355	58	1,09
			0,450	69	0,96										0,400	54	1,34
			0,560	64	1,42	0,450	51	1,64									
			0,630	61	1,76	0,560	44	2,37									
			0,710	58	2,17	1,00	31	5,64									
			0,900	51	3,28												

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1) For plain steel wire,  $\rho = 7\,850\text{ kg/m}^3$  (see clause 5).

Table 1 — Preferred aperture size and wire diameter combinations (continued)

Width of aperture			Diameter of wire <i>d</i> mm	Open area <i>A<sub>o</sub></i> %	Mass <sup>1)</sup> per unit area <i>ρA<sub>2</sub></i> kg/m <sup>2</sup>	Width of aperture			Diameter of wire <i>d</i> mm	Open area <i>A<sub>o</sub></i> %	Mass <sup>1)</sup> per unit area <i>ρA<sub>2</sub></i> kg/m <sup>2</sup>				
R 10 <i>w</i> mm	R 20 <i>w</i> mm	R 40/3 <i>w</i> mm				R 10 <i>w</i> mm	R 20 <i>w</i> mm	R 40/3 <i>w</i> mm							
1	1	1	0,224	67	0,52	0,5	0,5	0,5	0,140	61	0,39				
			0,250	64	0,64				0,160	57	0,49				
			0,280	61	0,78				0,200	51	0,73				
			0,315	58	0,96				0,224	48	0,88				
			0,355	54	1,18				0,250	44	1,06				
			0,400	51	1,45				0,280	41	1,28				
			0,450	48	1,77				0,315	38	1,55				
			0,500	44	2,12				0,355	34	1,87				
			0,560	41	2,55				0,400	31	2,26				
									0,710	34	3,74				
	0,9		0,200	67	0,46				0,140	58	0,42				
0,224			64	0,57	0,200				48	0,78					
0,250			61	0,69	0,250				41	1,13					
0,315			55	1,04	0,280				38	1,36					
0,355			51	1,28	0,315				35	1,65					
0,400			48	1,56											
0,450			45	1,91											
0,500			41	2,27											
					0,900				28	5,41					
				0,85	0,355				50	1,33				0,125	55
		0,400	44		1,63	0,140	51	0,50							
		0,500	40		2,35	0,180	44	0,77							
		0,630	33		3,41	0,200	41	0,92							
		0,800	27		4,93	0,224	38	1,10							
						0,250	34	1,31							
						0,280	31	1,57							
						0,315	28	1,88							
						0,355	25	2,25							
0,8	0,8		0,200	64	0,51				0,112	54	0,37				
			0,250	58	0,76				0,160	44	0,69				
			0,280	55	0,92				0,200	37	0,99				
			0,315	51	1,13				0,250	31	1,40				
			0,355	48	1,39										
			0,450	41	2,06										
			0,500	38	2,44										
	0,71	0,71	0,180	64	0,46				0,160	43	0,71				
0,200			61	0,56	0,200				36	1,02					
0,250			55	0,83	0,224				33	1,18					
0,280			51	1,01	0,250				30	1,44					
0,315			48	1,23											
0,355			44	1,50											
0,450			37	2,22											
0,560			31	3,14											
0,63	0,63		0,160	64	0,41				0,100	51	0,36				
			0,180	60	0,51				0,125	44	0,53				
			0,224	54	0,75				0,140	41	0,64				
			0,250	51	0,90				0,160	37	0,79				
			0,280	48	1,09				0,180	34	0,96				
			0,315	44	1,33				0,200	31	1,13				
			0,400	37	1,97										
		0,6	0,280	46	1,13				0,090	51	0,33				
			0,400	36	2,03				0,100	48	0,39				
			0,450	33	2,45				0,125	41	0,57				
	0,56		0,160	60	0,45				0,160	34	0,85				
0,224			51	0,81	0,180				31	1,02					
0,280			44	1,19											
0,355			37	1,75											

1) For plain steel,  $\rho = 7\,850\text{ kg/m}^3$  (see clause 5).

Table 1 — Preferred aperture size and wire diameter combinations (concluded)

Width of aperture			Diameter of wire <i>d</i> mm	Open area <i>A<sub>o</sub></i> %	Mass <sup>1)</sup> per unit area $\rho_A$ kg/m <sup>2</sup>
R 10 <i>w</i> mm	R 20 <i>w</i> mm	R 40/3 <i>w</i> mm			
		0,212	0,100 0,140 0,160	46 36 32	0,41 0,71 0,87
0,2	0,2		0,080 0,090 0,112 0,125 0,140 0,160	51 48 41 38 35 31	0,29 0,35 0,51 0,61 0,73 0,90
	0,18	0,18	0,080 0,090 0,112 0,125 0,140	48 44 38 35 32	0,31 0,38 0,55 0,65 0,78
0,16	0,16		0,071 0,100 0,112 0,125	48 38 35 32	0,28 0,49 0,59 0,70
		0,15	0,063 0,080 0,100 0,112	50 43 36 33	0,24 0,36 0,51 0,61
	0,14		0,063 0,090 0,100 0,112	48 37 34 31	0,25 0,45 0,53 0,63
0,125	0,125	0,125	0,056 0,063 0,080 0,090 0,100	48 44 37 34 31	0,22 0,27 0,40 0,48 0,56
	0,112		0,056 0,071 0,080 0,090	44 38 34 31	0,24 0,35 0,42 0,51
		0,106	0,050 0,056 0,063 0,071 0,080	46 43 39 36 31	0,20 0,25 0,30 0,36 0,45
0,1	0,1		0,050 0,063 0,071 0,080	44 38 34 31	0,21 0,31 0,37 0,40
	0,09	0,09	0,040 0,045 0,050 0,056 0,063 0,071	48 44 41 38 35 31	0,16 0,19 0,23 0,27 0,33 0,40

Width of aperture			Diameter of wire <i>d</i> mm	Open area <i>A<sub>o</sub></i> %	Mass <sup>1)</sup> per unit area $\rho_A$ kg/m <sup>2</sup>
R 10 <i>w</i> mm	R 20 <i>w</i> mm	R 40/3 <i>w</i> mm			
0,08	0,08		0,040 0,045 0,050 0,056 0,063	44 41 38 35 31	0,17 0,21 0,24 0,29 0,35
		0,075	0,036 0,040 0,050 0,056	46 43 36 33	0,15 0,18 0,25 0,30
	0,071		0,040 0,045 0,050 0,056	41 38 34 31	0,18 0,22 0,26 0,31
0,063	0,063	0,063	0,036 0,040 0,045 0,050	41 37 34 31	0,17 0,20 0,24 0,28
		0,056	0,032 0,036 0,040 0,045	41 37 34 31	0,15 0,18 0,21 0,26
	0,053		0,036 0,040	36 33	0,19 0,22
0,05	0,05		0,028 0,030 0,032 0,036 0,040	41 39 37 34 31	0,13 0,14 0,16 0,19 0,23
	0,045	0,045	0,032 0,036	34 31	0,17 0,20
0,04	0,04		0,025 0,030 0,032	38 33 31	0,12 0,16 0,18
		0,038	0,025 0,030	36 30	0,13 0,17
	0,036		0,028 0,030	32 30	0,16 0,17
0,032	0,032	0,032	0,025 0,028	32 28	0,14 0,17
	0,028		0,025	28	0,15
		0,026	0,022 0,025	28 26	0,13 0,16
0,025	0,025		0,022 0,025	28 26	0,13 0,16
	0,022	0,022	0,022	25	0,14
0,02	0,02		0,020	25	0,13

1) For plain steel wire,  $\rho = 7\,850\text{ kg/m}^3$  (see clause 5).