INTERNATIONAL STANDARD

ISO 2976

Second edition
2005-04-01

Coated abrasives — Abrasive belts — Selection of width/length combinations

Abrasifs appliqués — Bandes abrasives — Sélection des combinaisons largeurs/longueurs

Reference number
ISO 2976:2005(E)

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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 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 2976 was prepared by Technical Committee ISO/TC 29, *Small tools*, Subcommittee SC 5, *Grinding wheels and abrasives*.

This second edition cancels and replaces the first edition (ISO 2976:1973), which has been technically revised.

Coated abrasives — Abrasive belts — Selection of width/length combinations

1 Scope

This International Standard specifies the nominal dimensions, and limit deviations of abrasive belts. It also specifies the designation and marking of these abrasive belts.

This International Standard is applicable to abrasive belts intended for use on hand-held grinding machines and stationary grinding machines.

2 Normative references

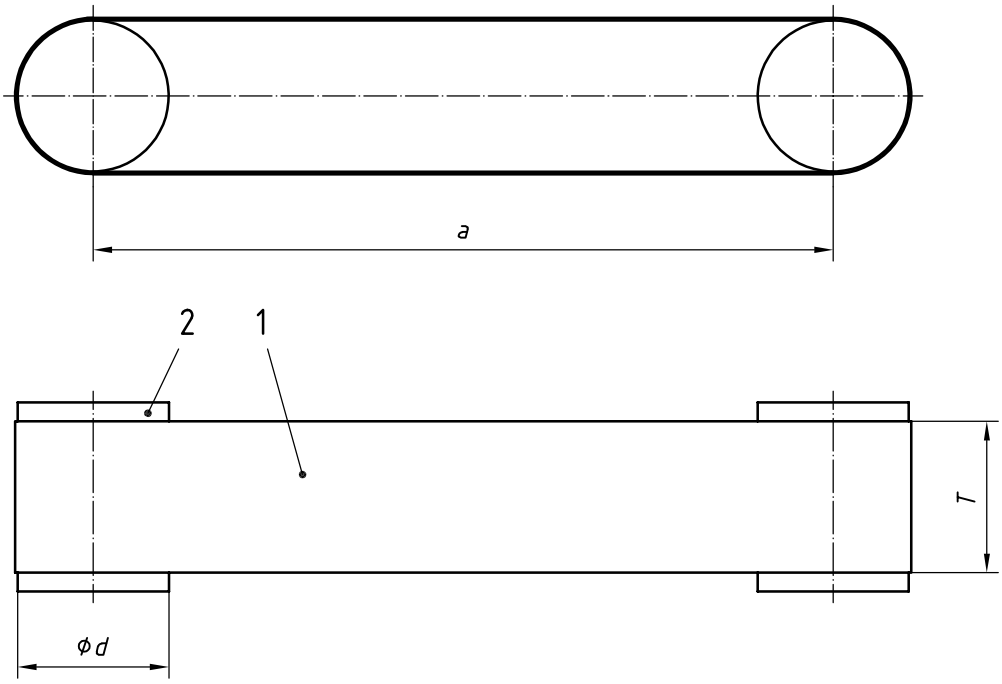
The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 554:1976, *Standard atmospheres for conditioning and/or testing — Specifications*

3 Requirements

3.1 Dimensions and limit deviations for standardized sizes

See Figure 1, Table 1 and Table 2.



Key

1 abrasive belt of width T and total length $L = 2a + d\pi$

2 roll diameter d

a distance between roll axes

Figure 1

Table 1 — Preferred dimensions for abrasive belts

Dimensions in millimetres

T		*L*	
nom.	limit deviation	nom.	limit deviation
6	± 1	457	± 3
		520	
		533	
		610	
10	± 1	330	
13	± 1	330	
		457	
		520	
		610	
		760	
		1 120	± 5
15	± 1	330	± 3
		480	
		520	
20	± 1	450	
		480	
		520	
		610	
		2 000	± 5
		2 500	
		3 500	
		4 000	
25	± 1	450	± 3
		480	
		610	
		760	
		1 000	
		1 500	± 5
		2 000	
		2 500	
		3 500	
30	± 1	450	± 3
		620	
		800	
		1 000	
		1 250	± 5
		1 500	
		2 000	
		2 500	
		3 500	
		4 000	

Table 1 (*continued*)

Dimensions in millimetres

T		L	
nom.	limit deviation	nom.	limit deviation
40	± 1	450	± 3
		620	
		750	
		800	
		1 200	± 5
		1 500	
		1 650	
		2 000	
		2 500	
		3 500	
		4 000	
50	± 1	450	± 3
		620	
		750	
		800	
		1 000	
		1 250	± 5
		1 500	
		1 600	
		2 000	
		2 500	
		3 000	
		3 500	
		4 000	
60	± 2	400	± 3
		2 250	± 5
		2 500	
		3 000	
		3 500	
65	± 2	410	± 3
75	± 2	457	± 3
		480	
		533	
		610	
		1 500	± 5
		2 000	
		2 250	
		2 500	
		3 000	
		3 500	
		4 000	

Table 1 (*continued*)

Dimensions in millimetres

T		*L*	
nom.	limit deviation	nom.	limit deviation
100	± 2	560	± 3
		610	
		620	
		800	
		860	
		900	
		1 000	
		1 100	± 5
		1 500	
		1 800	
		2 000	
		2 500	
		3 000	
		3 500	
		4 000	
		8 500	± 20
		9 000	
120	± 2	450	± 3
		1 500	± 5
		2 000	
		2 500	
		3 000	
		3 500	
		4 000	
		7 000	± 20
		7 600	
		7 800	
		8 000	

Table 1 (*continued*)

Dimensions in millimetres

T		*L*	
nom.	limit deviation	nom.	limit deviation
150	± 2	1 500	± 5
		1 750	
		2 000	
		2 250	
		2 500	
		3 000	
		3 500	
		4 000	
		5 000	± 10
		6 000	± 20
		6 500	
		7 000	
		7 100	
		7 200	
		7 500	
		7 700	
		7 800	
		9 000	
200	± 2	550	± 3
		750	
		1 500	± 5
		1 600	
		1 800	
		1 850	
		2 000	
		2 500	
		3 000	
		3 500	
250	± 2	750	± 3
		1 800	± 5
		2 500	
		3 000	
300	± 2	2 000	± 5
		2 500	
		3 000	
		3 500	
		4 000	
400	± 2	1 900	± 5
		3 200	
		3 300	
630	± 2	1 900	± 5
930	± 2	1 525	± 5
		1 900	
		2 300	

Table 1 (*continued*)

Dimensions in millimetres

T		L	
nom.	limit deviation	nom.	limit deviation
1 100	± 3	1 900	± 10
		2 100	
1 120	± 3	1 900	± 10
		2 200	
		2 620	
1 150	± 3	1 900	± 10
		2 200	
		2 500	
		2 620	
1 300	± 3	1 900	± 10
		2 620	
		3 250	
1 320	± 3	1 900	± 10
		2 500	
		2 620	
		3 200	
1 350	± 3	1 900	± 10
		2 100	
		2 620	
		3 150	
		3 250	
		3 800	
1 400	± 3	1 900	± 10
		2 500	
		2 620	
		2 800	
		3 150	
		3 250	
		3 810	
> 1 400	± 3	2 620	± 10
		2 800	
		3 050	
		3 200	
		3 810	

Table 2 — Dimensions for abrasive belts not to be used for new designs

Dimensions in millimetres

T		*L*	
nom.	limit deviation	nom.	limit deviation
13	± 1	450	± 3
		533	
20	± 1	457	± 3
		533	
30	± 1	533	± 3
		740	
40	± 1	600	± 3
50	± 1	395	± 3
		1 020	± 5
		2 300	
		2 400	
60	± 2	2 300	± 5
75	± 2	510	± 3
100	± 2	395	± 3
		550	
		920	
		950	
		1 480	± 5
		1 650	
		1 830	
		2 250	
		3 350	
120	± 2	6 800	± 20
		6 880	
		7 100	
150	± 2	2 170	± 5
		2 280	
		2 600	
		2 800	
		4 800	± 10
		4 900	
		5 400	

Table 2 (*continued*)

Dimensions in millimetres

T		L	
nom.	limit deviation	nom.	limit deviation
150	± 2	6 200	± 20
		6 630	
		6 700	
		6 800	
		6 880	
		7 300	
		7 400	
		7 600	
		8 000	
		8 500	
		9 200	
200	± 2	1 900	± 5
		2 100	
		2 350	
		3 350	
		4 000	
		10 300	± 20
610	± 2	1 900	± 5
910	± 2	1 900	± 5
930	± 2	2 500	± 5
1 010	± 3	1 900	± 5
1 100	± 3	2 150	± 10
		2 620	
1 120	± 3	2 150	± 10
1 300	± 3	2 200	± 10
1 350	± 3	2 000	± 10
1 400	± 3	2 150	± 10

3.2 Length difference

The length difference which may exist between the two edges of an abrasive belt shall not exceed

a) 5 mm for belts of width $T \geqslant 1\,000$ mm,

b) 3 mm for belts of width $T < 1\,000$ mm.

3.3 Test conditions

The limit deviations given in Table 1 are valid under the following conditions:

— temperature: 20 °C ± 2 °C
— relative humidity: 65 % ± 5 %

} in accordance with ISO 554

When abrasive belts are tested they shall be stored for at least 24 h under the above conditions.

4 Designation

Abrasive belts conforming to this International Standard shall be designated by

a) “Abrasive belt”,

b) reference to this International Standard, i.e. ISO 2976,

c) the width, T, in millimetres,

d) the length, L, in millimetres.

EXAMPLE An abrasive belt with width $T = 100$ mm and length $L = 3\,000$ mm is designated as follows:

Abrasive belt ISO 2976 - 100 × 3 000

5 Marking

Abrasive belts shall be marked with the following information:

a) manufacturer, supplier, importer or their registered trademark;

b) direction of rotary if it is required;

c) grit size.

Annex A
(informative)

Dimensions of abrasive belts, selection of width/length combinations

Table A.1 — Preferred dimensions for abrasive belts

Dimensions in millimetres

L		*T*	
nom.	limit deviation	nom.	limit deviation
330	± 3	10	± 1
		13	
		15	
400	± 3	60	± 2
410	± 3	65	± 2
450	± 3	20	± 1
		25	
		30	
		40	
		50	
		120	± 2
457	± 3	6	± 1
		13	
		75	± 2
480	± 3	15	± 1
		20	
		25	
		75	± 2
520	± 3	6	± 1
		13	
		15	
		20	
533	± 3	6	± 1
		75	± 2
550	± 3	200	± 2
560	± 3	100	± 2
610	± 3	6	± 1
		13	
		20	
		25	
		75	± 2
		100	
620	± 3	30	± 1
		40	
		50	
		100	± 2

Table A.1 (*continued*)

Dimensions in millimetres

L		*T*	
nom.	limit deviation	nom.	limit deviation
750	± 3	40	± 1
		50	
		200	± 2
		250	
760	± 3	13	± 1
		25	
800	± 3	30	± 1
		40	
		50	
		100	± 2
860	± 3	100	± 2
900	± 3	100	± 2
1 000	± 3	25	± 1
		30	
		50	
		100	± 2
1 100	± 5	100	± 2
1 120	± 5	13	± 1
1 200	± 5	40	± 1
1 250	± 5	30	± 1
		50	
1 500	± 5	25	± 1
		30	
		40	
		50	
		75	± 2
		100	
		120	
		150	
		200	
1 525	± 5	930	± 2
1 600	± 5	50	± 1
		200	± 2
1 650	± 5	40	± 1
1 750	± 5	150	± 2
1 800	± 5	100	± 2
		200	
		250	
1 850	± 5	200	± 2

Table A.1 (*continued*)

Dimensions in millimetres

L		*T*	
nom.	limit deviation	nom.	limit deviation
1 900	± 5	400	± 2
		630	
		930	
		1 100	± 3
		1 120	
		1 150	
		1 300	
		1 320	
		1 350	
		1 400	
2 000	± 5	20	± 1
		25	
		30	
		40	
		50	
		75	± 2
		100	
		120	
		150	
		200	
		300	
2 100	± 5	1 100	± 3
		1 350	
2 200	± 5	1 120	± 3
		1 150	
2 250	± 5	60	± 2
		75	
		150	
2 300	± 5	930	± 2
2 500	± 5	20	± 1
		25	
		30	
		40	
		50	
		60	± 2
		75	
		100	
		120	
		150	
		200	
		250	
		300	

Table A.1 (*continued*)

Dimensions in millimetres

L		*T*	
nom.	limit deviation	nom.	limit deviation
2 500	± 5	1 150	± 3
		1 320	
		1 400	
2 620	± 5	1 120	± 3
		1 150	
		1 300	
		1 320	
		1 350	
		1 400	
		⩾ 1 400	
2 800	± 5	1 400	± 2
		⩾ 1 400	± 3
3 000	± 5	50	± 1
		60	± 2
		75	
		100	
		120	
		150	
		200	
		250	
		300	
3 050	± 5	⩾ 1 400	± 3
3 150	± 5	1 350	± 3
		1 400	
3 200	± 5	400	± 2
		1 320	± 3
		⩾ 1 400	
3 250	± 5	1 300	± 3
		1 350	
		1 400	
3 300	± 5	400	± 2
3 500	± 5	20	± 1
		25	
		30	
		40	
		50	
		60	± 2
		75	
		100	
		120	
		150	
		200	
		300	

Table A.1 (*continued*)

Dimensions in millimetres

L		*T*	
nom.	limit deviation	nom.	limit deviation
3 800	± 5	1 350	± 3
3 810	± 5	1 400	± 3
		⩾ 1 400	
4 000	± 5	20	± 1
		30	
		40	
		50	
		75	± 2
		100	
		120	
		150	
		300	
5 000	± 10	150	± 2
6 000	± 20	150	± 2
6 500	± 20	150	± 2
7 000	± 20	120	± 2
		150	
7 100	± 20	150	± 2
7 200	± 20	150	± 2
7 500	± 20	150	± 2
7 600	± 20	120	± 2
7 700	± 20	150	± 2
7 800	± 20	120	± 2
		150	
8 000	± 20	120	± 2
8 500	± 20	100	± 2
9 000	± 20	100	± 2
		150	

Table A.2 — Dimensions for abrasive belts not to be used for new designs

Dimensions in millimetres

L		*T*	
nom.	limit deviation	nom.	limit deviation
395	± 3	50	± 1
		100	± 2
450	± 3	13	± 1
457	± 3	20	± 1
510	± 3	75	± 2
533	± 3	13	± 1
		20	
		30	
550	± 3	100	± 2
600	± 3	40	± 1
740	± 3	30	± 1
920	± 3	100	± 1
950	± 3	100	± 1
1 020	± 5	50	± 1
1 480	± 5	100	± 2
1 650	± 5	100	± 2
1 830	± 5	100	± 2
1 900	± 5	200	± 2
		610	
		910	
		1 010	± 3
2 000	± 10	1 350	± 3
2 100	± 5	200	± 2
2 150	± 10	1 100	± 3
		1 400	
2 170	± 5	150	± 2
2 200	± 10	1 300	± 3
2 250	± 5	100	± 2
2 280	± 5	150	± 2
2 300	± 5	50	± 1
		60	± 2
2 350	± 5	200	± 2
2 400	± 5	50	± 1
2 500	± 5	930	± 2

Table A.2 (*continued*)

Dimensions in millimetres

L		*T*	
nom.	limit deviation	nom.	limit deviation
2 600	± 5	150	± 2
2 620	± 10	1 100	± 3
2 800	± 5	150	± 2
3 350	± 5	100	± 2
		200	
4 000	± 5	200	± 2
4 800	± 10	150	± 2
4 900	± 10	150	± 2
5 400	± 10	150	± 2
6 200	± 20	150	± 2
6 630	± 20	150	± 2
6 700	± 20	150	± 2
6 800	± 20	120	± 2
		150	
6 880	± 20	150	± 2
		200	
7 100	± 20	120	± 2
7 300	± 20	150	± 2
7 400	± 20	150	± 2
7 600	± 20	150	± 2
8 000	± 20	150	± 2
8 500	± 20	150	± 2
9 200	± 20	150	± 2
10 300	± 20	200	± 2

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