

# INTERNATIONAL STANDARD

# ISO 2421

Second edition  
2003-03-01

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## Coated abrasives — Cylindrical sleeves

*Abrasifs appliqués — Manchons cylindriques*

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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 2421 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 2421:1972), which has been technically revised.

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# Coated abrasives — Cylindrical sleeves

## 1 Scope

This International Standard specifies dimensions, tolerances and test conditions for cylindrical abrasive sleeves mounted on holding fixtures for hand-held grinding machines in accordance with ISO 15637-1 and stationary grinding machines in accordance with ISO 15637-2.

## 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, *Standard atmospheres for conditioning and/or testing — Specifications*

ISO 15637-1, *Holding fixtures of cylindrical abrasive sleeves — Holding fixtures with shank for hand-held grinding machines*

ISO 15637-2, *Holding fixtures of abrasive sleeves — Holding fixtures for stationary machines*  
[ISO 2421:2003](#)

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3 Dimensions

See Figure 1 and Tables 1 and 2.

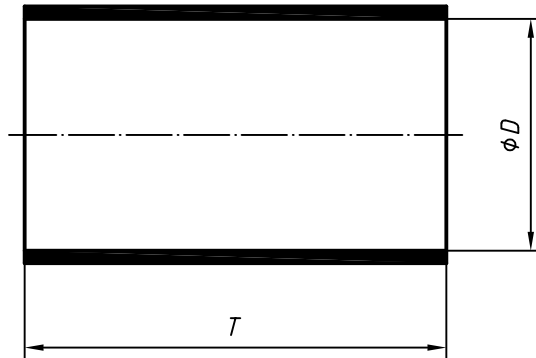


Figure 1 — Cylindrical sleeve

Table 1 — Cylindrical sleeves with  $\phi D \leq 100$  mm

Dimensions in millimetres

Nom.	$D$ Limit deviations		$T$ $\pm 1$
	Type A Straight joint method	Type B Spiral joint method	
10	—	0	10
		-0,2	20
15	—	0	10
		-0,2	30
22	—	-0,1	20
		-0,3	40
30	—	-0,1 -0,3	20
			30
			40
			50
45	—	-0,1 -0,4	30
			40
			50
60	—	-0,1 -0,4	30
			40
			50
75	—	-0,2 -0,5	30
			40
			50
100	—	-0,2 -0,5	40

Table 2 — Cylindrical sleeves with  $\varnothing D > 100$  mm

Dimensions in millimetres

Nom.	$D$		$T$ $\pm 2$
	Limit deviations Type A Straight joint method		
125	+ 1,6 0		150
			200
150	+ 1,6 0		215
			225
			300
150	+ 1,6 0		150
			200
			250
175	+ 1,85 0		100
			150
			200
			250
200	+ 1,85 0		150
			200
			250
250	+ 1,85 0		150
			200
			250
315	+ 2,1 0		250
			300

#### 4 Test conditions

The limit deviations given in Tables 1 and 2 are valid under the following conditions:

- temperature:  $20\text{ °C} \pm 2\text{ °C}$
  - relative humidity:  $(65 \pm 5)\%$
- } in accordance with ISO 554

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

## 5 Designation

Cylindrical sleeves conforming to this document shall be designated by

- a) "Cylindrical sleeve";
- b) reference to this document, i.e., ISO 2421;
- c) Type A or B;
- d) diameter  $D$ ;
- e) width  $T$ .

EXAMPLE A cylindrical sleeve of Type A, with diameter  $D = 45$  mm and width  $T = 50$  mm is designated as follows:

**Cylindrical sleeve ISO 2421 A 45 × 50**

## 6 Marking

Cylindrical sleeves shall be marked with dimensions  $D$  and  $T$ , and the name of manufacturer or their registered trademark.

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