

International Standard



7274

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

Wrought aluminium and aluminium alloys — Drawn round bars — Tolerances on shape and dimensions (All minus tolerances on diameter)

Aluminium et alliages d'aluminium corroyés — Barres rondes étirées — Tolérances sur forme et dimensions (Tolérances de diamètre tout en moins)

First edition — 1981-09-15

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UDC 669.71-422.2

Ref. No. ISO 7274-1981 (E)

Descriptors : aluminium, aluminium alloys, metal bars, dimensions, dimensional tolerances.

Foreword

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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 7274 was developed by Technical Committee ISO/TC 79, *Light metals and their alloys*, and was circulated to the member bodies in August 1980.

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

Austria	Japan	Spain
Brazil	Korea, Dem. P. Rep. of	Sweden
Czechoslovakia	Mexico	Switzerland
France	Netherlands	United Kingdom
Germany, F. R.	Norway	USSR
Hungary	Romania	
India	South Africa, Rep. of	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Australia
Italy

Wrought aluminium and aluminium alloys — Drawn round bars — Tolerances on shape and dimensions (All minus tolerances on diameter)

1 Scope and field of application

This International Standard specifies tolerances on shape and dimensions for wrought aluminium and aluminium alloy drawn round bars having diameters from 1 up to and including 65 mm. The tolerances on diameter specified in this International Standard are all minus tolerances.

NOTE — For symmetric plus and minus tolerances on diameter, see ISO 5193, *Wrought aluminium and aluminium alloys — Drawn round bars — Tolerances on shape and dimensions (Symmetric plus and minus tolerances on diameter)*.

2 Tolerances on shape and dimensions

2.1 Diameter

See table 1.

Table 1

Dimensions in millimetres

Diameter		Tolerance ¹⁾ on diameter	Permissible circularity
over	up to and including		
including 1	3	− 0,06	0,03
3	6	− 0,08	0,04
6	10	− 0,09	0,045
10	18	− 0,11	0,055
18	30	− 0,13	0,065
30	50	− 0,16	0,08
50	65	− 0,19	0,095

1) The tolerances are rounded values of the ISO h 11 — series of tolerances, in accordance with ISO/R 286.

2.2 Circularity

Circularity is measured by the difference between the maximum and minimum diameters measured in one cross-section.

The permissible circularity is included in the tolerance on diameter and shall not exceed half the tolerance specified in table 1.

2.3 Straightness

The straightness tolerances apply to bars having diameters from 10 up to and including 65 mm, in all tempers except tempers O and M.

Deviations from straightness shall be measured with the bar placed on a horizontal plate so that its mass decreases the deviation.

The permissible deviation from straightness in the total length, or in any 300 mm or longer section of the total length, shall be 2 mm per metre.

2.4 Fixed lengths

See table 2.

Fixed lengths shall be agreed between supplier and purchaser.

The tolerances on fixed lengths, given in table 2, apply to diameters from 10 up to and including 65 mm.

Table 2

Dimensions in millimetres

Diameter	Tolerance on fixed lengths over			
	2 000	5 000	10 000	
	up to and including			
	2 000	5 000	10 000	15 000
from 10 up to and including 65	+ 4	+ 6	+ 9	+ 12