

AMENDMENT NO. 1 JULY 2024
TO
IS 10773 : 1995 WROUGHT COPPER TUBES FOR REFRIGERATION AND
AIR-CONDITIONING PURPOSES — SPECIFICATION
(First Revision)

(Page 1, clause 2) — Substitute the following for the existing:

‘2 REFERENCES

The standards given below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards:

<i>IS No./Other Standards</i>	<i>Title</i>
IS 440 : 1964	Methods for chemical analysis of copper (<i>revised</i>)
IS 1387 : 1993	General requirements for the supply of metallurgical materials (<i>second revision</i>)
IS 1608 (Part 1) : 2022/ ISO 6892-1 : 2019	Metallic materials — Tensile testing: Part 1 Method of test at room temperature (<i>fifth revision</i>)
IS 2328 : 2018/ISO 8492 : 2013	Metallic materials — Tube — Flattening test (<i>third revision</i>)
IS 2335 : 2005/ISO 8493 : 1998	Metallic materials — Tube — Drift expanding test (<i>second revision</i>)
IS 3288 (Part 3) : 1986	Glossary of terms relating to copper and copper alloys: Part 3 Wrought forms
IS 5493 : 1981	Dimensions for wrought copper and copper alloy tubes (<i>first revision</i>)
IS 6243 : 1985	Method of hydrogen embrittlement test for copper (<i>first revision</i>)
IS 11612 : 2004	Code of practice for eddy current testing of non-ferrous seamless pipes and tubes (<i>first revision</i>)
ISO 2624 : 1990	Copper and copper alloys — Estimation of average grain size’

(Page 1, clause 3.1) — Substitute ‘IS 3288 (Part 3)’ for ‘IS 3288 (Part 3) : 1986’.

(Page 1, clause 4) — Substitute ‘IS 1387’ for ‘IS 1387 : 1993’.

(Page 2, clause 8.1) — Substitute ‘IS 5493’ for ‘IS 5493 : 1981’.

(Page 2, clause 8.2.1) — Substitute ‘IS 5493’ for ‘IS 5493 : 1981’.

Price Group 1

Amendment No. 1 to IS 10773 : 1995

(Page 2, Table 1) — Substitute the following for the existing:

Table 1 Chemical Composition

(Clause 9.1)

(Composition limit are in percent maximum unless shown otherwise)

Sl No.	Grade	Cu*	Pb	Sn	Fe	Al	Mn	As	Ni	Zn	P
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
i)	Grade 1	99.90 <i>Min</i>	—	—	—	—	—	—	—	—	0.004 to 0.015
ii)	Grade 2	99.85 <i>Min</i>	0.01	0.01	0.03	—	—	0.05	0.1	—	0.015 to 0.040

* Includes silver if any.

(Page 2, clause 9.2) — Substitute 'IS 440' for 'IS 440 : 1964'.

(Page 2, clause 10.1.1) — Substitute 'IS 1608 (Part 1)' for 'IS 2655 : 1964'.

(Page 3, clause 10.2.1) — Substitute 'IS 2328' for 'IS 2328 : 1983'.

(Page 3, clause 10.3.1) — Substitute 'IS 2335' for 'IS 2335 : 1985'.

(Page 3, clause 10.4.1) — Substitute 'IS 11612' for 'IS 11612 : 1984'.

(Page 3, clause 10.5) — Substitute the following for the existing:

‘10.5 Microscopic Examination

Samples in longitudinal direction of tubes selected for the test shall be subjected to microscopic examination in accordance with ISO 2624 : 1990 at a magnification of 75x and shall show uniform and complete recrystallization with an average grain size as below:

Sl No.	Temper	Grain Size
(1)	(2)	(3)
i)	Light annealed	0.015 mm to 0.035 mm
ii)	Soft annealed	0.035 mm, <i>Min</i> '

(Page 3, clause 10.6) — Substitute 'IS 6243' for 'IS 6243 : 1985'.

(Page 5, clause 14.2) — Substitute the following for the existing:

‘14.2 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.’

(Page 5, Annex A) — Delete.

(MTD 08)

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