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IS 10342 (1982): Specification for curtain rail system
[CED 15: Builder Hardware]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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IS : 10342 - 1982

Indian Standard
SPECIFICATION FOR
CURTAIN RAIL SYSTEM

UDC 645.332



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INDIAN STANDARDS INSTITUTION
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR CURTAIN RAIL SYSTEM

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Indian Standard

SPECIFICATION FOR CURTAIN RAIL SYSTEM

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 30 November 1982, after the draft finalized by the Builder's Hardware Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 Curtain rails along with hooks, and runners and made out of aluminium or steel are extensively used for the purpose of hanging curtains on opening parts of a building like windows, entrance doors, etc, for use as partitions or for interior decoration. The rails used for the purpose are normally of 'I' or 'C' sections, straight or curved and are fixed to the wall or to the top plank of the pelmet on the broader flange with brackets. Runners fixed with hooks are made to slide on the shorter flange of the rail, and curtains are hung to these hooks. These rails and their components are finding greater application and are being manufactured exclusively in the country at present. This standard has been prepared to lay down the basic requirements of rails, runners, and hooks used for the purpose.

0.3 While issuing this standard, the Sectional Committee took note of the acute scarcity of materials like brass and other alloys in the country and the need for conserving the use of the same in the national interest. However, in view of the demand for hardware items made of these materials in the overseas market, these have been recommended, specifically to meet the export trade. For all indigenous use, it is strongly recommended that items made out of these materials should not be used.

0.4 This standard contains clauses **5.2** and **7.1** which permit the purchaser to use his option for selection to suit his requirements.

0.5 This standard is one of a series of Indian Standards on builder's hardware. A list of standards published so far in the series is given on page. 10.

0.6 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (*revised*).

1. SCOPE

1.1 This standard lays down the requirements regarding materials, manufacture, dimensions, testing and finish of rails, runners and hooks used in the curtain rail system.

NOTE — This standard, however does not cover the requirements for drop curtain rail system used in theatres, auditoriums, etc.

2. COMPONENTS

2.1 A curtain rail system shall consist of the following main components (see Fig. 1) :

- a) Rail,
- b) Runner, and
- c) Hook or clip.

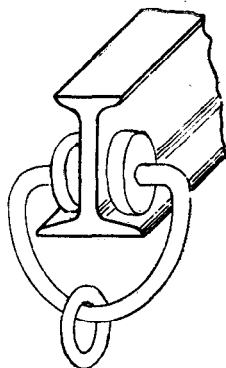


FIG. 1 A TYPICAL CURTAIN RAIL SYSTEM

2.1.1 The material for manufacture of the components shall be as given in 4.

3. TYPES

3.1 The curtain rail system shall be of the following three types:

- Type 1 — Cast,
- Type 2 — Pressed, and
- Type 3 — Fabricated.

4. MATERIALS

4.1 Materials for different types of rails shall be as follows:

- Type 1 — Cast brass or aluminium,
- Type 2 — Mild steel or brass or aluminium alloy sheet, and
- Type 3 — Extruded brass or aluminium alloy.

4.1.1 Runners and hooks shall be manufactured using rods wires or pipes made of aluminium brass or mild steel.

4.2 The materials used for different components of curtain rail system shall comply with the requirements given in Table 1.

NOTE — The requirements for plastic curtain rail system shall be issued separately.

TABLE 1 REQUIREMENTS FOR MATERIALS

MATERIAL	SUITABLE GRADE IN INDIAN STANDARD
(1)	(2)
Mild steel sheets	Grade 0-1079 of IS : 1079-1973*
Brass sheets	Grade CuZn 40 of IS : 410-1977†
Aluminium alloy sheet	Designation 52000-H ₁ or 53000-H ₁ of IS : 737-1974‡
Cast brass	Grade 3 of IS : 292-1961§
Aluminium alloy die casting	Designation 4600 or 5230 of IS : 617-1975
Extruded aluminium alloy rods and sections	Designation 65032 WP or 64430 WP of IS : 733-1975¶
Extruded brass rods and sections	½ H of IS : 319-1974**
Mild steel wire	½ H of IS : 280-1978††
Brass wire	Minimum ½ H of IS : 4413-1967‡‡
Aluminium alloy wire	Grade 65032 WP or 64430 WP of IS : 739-1977§§
Extruded aluminium alloy tubes and hollow sections	Grade 63400 WP or 65032 WP or 64430 WP of IS : 1285-1975

*Specification for hot rolled carbon steel sheet and strip (*third revision*).

†Specification for cold rolled brass, sheet, strip and foil (*third revision*).

‡Specification for wrought aluminium and aluminium alloys sheet and strip (for general engineering purposes) (*second revision*).

§Specification for brass ingots and castings (*revised*).

||Specification for aluminium and aluminium alloy ingots and castings for general engineering purposes (*second revision*).

¶Specification for wrought aluminium and aluminium alloy bars, rods and sections (for general engineering purposes) (*second revision*).

**Specification for free-cutting brass bars, rods and sections (*third revision*).

††Specification for mild steel wire for general engineering purposes (*third revision*).

‡‡Specification for brass wires for general engineering purposes.

§§Specification for wrought aluminium and aluminium alloy wires for general engineering purposes (*second revision*).

|||Specification for wrought aluminium and aluminium alloy, extruded round tube and hollow sections (for general engineering purposes) (*second revision*).

5. SHAPE AND DIMENSIONS

5.1 The curtain rail shall be of either 'I' or 'C' section. The dimensions shall be as given in Tables 2 and 3 read with Fig. 2.

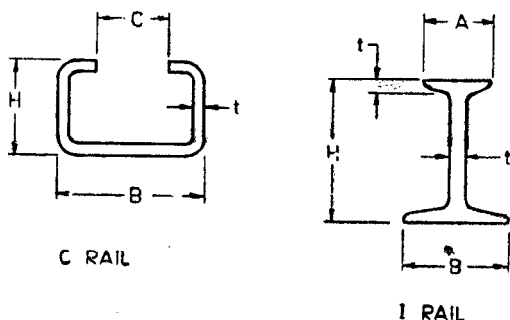


FIG. 2 TYPICAL CURTAIN RAILS

TABLE 2 DIMENSIONS FOR 'C' RAILS

All dimensions in millimetres.

SIZE	LENGTH	<i>B</i> <i>Min</i>	<i>H</i> <i>Min</i>	<i>t</i> <i>Min</i>	<i>C</i> <i>Min</i>
(1)	(2)	(3)	(4)	(5)	(6)
900	900 ± 3	20	12.5	1.5	10
1 200	1 200 ± 3				
1 800	1 800 ± 3				
2 400	2 400 ± 3				

TABLE 3 DIMENSIONS FOR 'I' RAILS

All dimensions in millimetres.

SIZE	LENGTH	<i>A</i> <i>Min</i>	<i>B</i> <i>Min</i>	<i>H</i> <i>Min</i>	<i>t</i> <i>Min</i>
(1)	(2)	(3)	(4)	(5)	(6)
1 800	1 800 ± 3	6	9.5	12.5	1.5
1 200	1 200 ± 3				
2 400	2 400 ± 3				

5.1.1 The size of the curtain rail system shall be designated by the total length of the rail.

5.2 The dimension of runners shall be such that they slide over the rails smoothly and without any hindrance.

5.3 The hooks or chips shall be of proper shape and dimensions to facilitate easy hanging and fixing.

5.4 The curtain rails may be supplied in sizes and dimensions other than those specified in Tables 2 and 3, if agreed to between the purchaser and the manufacturer.

6. MANUFACTURE

6.1 The rails, runners, and hooks shall be well made and shall be free from all deformations. They shall be finished to correct shape and dimensions. All sharp edges and corners shall be removed so as to facilitate easy handling. Cast components shall be free from casting defects. The screw holes for fixing the brackets shall be clean and countersunk to suit counter sunk heads of wood screws No. 8 (*see* IS : 6760-1972*).

7. FINISH

7.1 All components of curtain rail system shall be finished smooth. Aluminium components shall be anodized to a bright, natural, mat, or satin finish or shall be dyed. The anodic coating shall not be less than Grade AC 10 of IS : 1868-1968†, if required by the purchaser. Brass components shall have bright or satin finish and may be lacquered, nickel plated, or copper oxidized or bronze finished. Mild steel components shall be stove enamelled or electrogalvanized.

8. TESTS

8.1 Runner Strength Test

8.1.1 Procedure — Insert one runner in a rail of any length and supported freely on both ends. Hang a load of 5 kgf to the runner and leave it for 30 minutes. Remove the load and find out if there is any deformation in the rail runner and hooks.

9. MARKING

9.1 The curtain rail shall bear the manufacturer's name or his trade-mark if any.

9.1.1 The rails may also be marked with the ISI Certification Mark.

*Specification for slotted countersunk head wood screws.

†Specification for anodic coating on aluminium (*first revision*).

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

10. PACKING

10.1 The rails with hooks and runners shall be suitably packed in cartons. Each carton contain six rails and bear a label showing the following:

- a) Manufacturer's name or trade-mark, if any;
- b) Type of rail;
- c) Size; and
- d) Quantity.

11. SAMPLING AND CRITERION FOR CONFORMITY

11.1 The method of selecting curtain rails and the criterion for conformity shall be as given in Appendix A.

APPENDIX A

(Clause 11.1)

SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

A-1. LOT

A-1.1 In any consignment, all the rails with runners and hooks of the same type, shape, size, and manufactured from the same material under similar conditions of production shall be grouped together to constitute a lot.

A-2. SAMPLE SIZE

A-2.1 The number of curtain rails with hooks and runners to be selected from a lot shall depend on the size of the lot and shall be in accordance with col 1 and 2 of Table 4.

A-2.1.1 The curtain rails shall be selected from the lot at random. For this purpose reference may be made to IS : 4905-1958*.

*Methods for random sampling.

TABLE 4 SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY(*Clauses A-2.1 and A-4.1*)

LOT SIZE (1)	SAMPLE SIZE (2)	PERMISSIBLE NUMBER OF DEFECTIVES (3)
Up to 150	13	0
151 to 300	20	1
301 to 500	32	2
501 to 1 000	50	3
1 001 and above	80	5

A-3. NUMBER OF TESTS

A-3.1 All the curtain rails with hooks and runners selected as in **A-2**, shall be checked for dimensional requirements (*see 5*), workmanship (*see 6*) finish (*see 7*), and runners strength test (*see 8*). Any curtain rail which fails to satisfy any one or more of these requirements shall be considered a defective curtain rail.

A-4. CRITERIA FOR CONFORMITY

A-4.1 A lot shall be considered as conforming to the requirement of this standard if the number of defectives among those tested does not exceed the corresponding number given in col 3 of Table 4.

INDIAN STANDARDS

ON

BUILDER'S HARDWARE

IS:

- 204 (Part I)-1978 Tower bolts: Part I Ferrous metals (*fourth revision*)
- 204 (Part II)-1978 Tower bolts: Part II Non-ferrous metals (*fourth revision*)
- 205-1978 Non-ferrous metal butt hinges (*third revision*)
- 206-1981 Tee and strap hinges (*third revision*)
- 208-1979 Door handles (*third revision*)
- 281-1973 Mild steel sliding door bolts for use with padlocks (*second revision*)
- 362-1982 Parliament hinges (*fourth revision*)
- 363-1976 Hasps and staples (*third revision*)
- 364-1970 Fan-light catch (*second revision*)
- 452-1973 Door springs, rat-tail type (*second revision*)
- 453-1973 Double acting spring hinges (*second revision*)
- 729-1979 Drawer locks, cupboard locks and box locks (*third revision*)
- 1019-1974 Rim latches (*second revision*)
- 1341-1981 Steel butt hinges (*fourth revision*)
- 1495-1970 Mild steel dust-bins (*first revision*)
- 1823-1980 Floor door stoppers (*third revision*)
- 1837-1966 Fanlight pivots (*first revision*)
- 2209-1976 Mortice locks (vertical type) (*third revision*)
- 2681-1979 Non-ferrous metal sliding door bolts (Aldrops) for use with padlocks (*second revision*)
- 3564-1975 Door closers (hydraulically regulated) (*second revision*)
- 3818-1971 Continuous (piano) hinges (*first revision*)
- 3828-1966 Ventilator chains
- 3843-1966 Steel back flap hinges
- 3847-1966 Mortice night latches
- 4621-1975 Indicating bolts for use in public baths and lavatories (*first revision*)
- 4948-1974 Welded steel wire fabric for general use (*first revision*)
- 4992-1975 Door handles for mortice locks (vertical type) (*first revision*)
- 5187-1972 Flush bolts (*first revision*)
- 5899-1970 Bathroom latches
- 5930-1970 Mortice latch (vertical type)
- 6315-1971 Floor springs (hydraulically regulated) for heavy doors
- 6318-1971 Plastic window stays and fasteners
- 6343-1971 Door closers (pneumatically regulated) for light doors weighing up to 40 kg
- 6602-1972 Ventilator poles
- 6607-1972 Rebated mortice locks
- 7196-1974 Hold fast
- 7197-1974 Double action floor springs (without oil check) for heavy doors
- 7534-1974 Mild steel locking bolts with holes for padlocks
- 7540-1974 Mortice dead locks
- 8756-1978 Ball catches for use in wooden almirah
- 8760-1978 Mortice sliding door locks with lever mechanism
- 9106-1979 Rising butt hinges
- 9131-1979 Rim locks
- 9460-1980 Flush drop handles for drawers
- 9899-1981 Hat, coat and wardrobe hooks