



UL 14B

STANDARD FOR SAFETY

Sliding Hardware for Standard, Horizontally
Mounted Tin-Clad Fire Doors



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UL Standard for Safety for Sliding Hardware for Standard, Horizontally Mounted Tin-Clad Fire Doors, UL 14B

Ninth Edition, Dated December 15, 2008

SUMMARY OF TOPICS

Revision pages have been issued for the Standard for Sliding Hardware for Standard, Horizontally Mounted Tin-Clad Fire Doors, UL 14B, to reflect the reaffirmation of the ANSI approval. No changes in requirements have been made.

The revisions are substantially in accordance with Proposal(s) on this subject dated March 8, 2013.

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The requirements in this Standard are now in effect, except for those paragraphs, sections, tables, figures, and/or other elements of the Standard having future effective dates as indicated in the note following the affected item. The prior text for requirements that have been revised and that have a future effective date are located after the Standard, and are preceded by a "SUPERSEDED REQUIREMENTS" notice.

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UL 14B

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Ninth Edition

December 15, 2008

This ANSI/UL Standard for Safety consists of the Ninth Edition, including revisions through May 3, 2013.

The most recent designation of ANSI/UL 14B as an American National Standard (ANSI) occurred on May 3, 2013. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, or effective date information.

The Department of Defense (DoD) has adopted UL 14B on October 24, 1984. The publication of revised pages or a new edition of this Standard will not invalidate the DoD adoption.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at <http://csds.ul.com>.

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INTRODUCTION

1 Scope

1.1 These requirements apply to hardware for horizontally sliding fire doors which have demonstrated in fire tests fire-resistive properties warranting their use with two-ply and three-ply tin-clad fire doors tested in accordance with the Standard for Fire Tests of Door Assemblies, UL 10B (NFPA No. 252).

1.2 Requirements for the location and time rating are contained in codes, such as the International Building Code (IBC). The method of installation required for fire doors is not included in these codes. Requirements for the details for the installation of horizontally sliding two-ply and three-ply tin-clad fire doors are included in the Standard for Fire Doors and Other Opening Protectives, NFPA 80.

1.3 The hardware included in these requirements is designed for mounting standard two-ply and three-ply tin-clad horizontally sliding fire doors for protection of openings not exceeding the dimensions for the hourly classifications indicated in Table 1.1.

1.4 These requirements do not cover automatic releasing or closing mechanisms.

Table 1.1
Limitations in types and dimensions

Type of door	Maximum area,		Maximum width,		Maximum height,		Hourly rating
	ft ²	(m) ²	ft	(m)	ft	(m)	
Three-ply	120	11.2	12	3.6	12	3.6	3, 1-1/2, 1, 3/4
Two-ply	80	7.4	10	3.1	10	3.1	1-1/2, 1, 3/4

2 Units of Measurement

2.1 When a value for measurement is followed by a value in other units in parentheses, the first stated value is the requirement. SI units as employed are in accordance with the Standard for the Practice for Use of the International System of Units (SI) (the Modernized Metric System), ANSI/ASTM E380-91a.

2.2 The tolerance for all dimensions shall be as specified with the dimension. Where no tolerance is shown, the tolerances specified in Appendix B shall apply. See Appendix B for specifications.

3 Undated References

3.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

CONSTRUCTION

4 General

4.1 Each complete set of hardware for horizontally sliding tin-clad fire doors is to include:

- a) One track, length equal to twice the width of the opening plus 21 in (530 mm) drilled for wall bolts.
- b) Two hangers for openings 6 ft (1.8 m) and less in width; three hangers for openings wider than 6 ft (1.8 m), and bolts for attaching hangers to door.
- c) Two front binders for openings 8 ft (2.4 m) and less in height; three front binders for openings in excess of 8 ft (2.4 m); one rear binder and rear-binder pocket with strip for openings of 7 ft (2.1 m) and not more than 10 ft (3.1 m) in height; two rear binders and rear-binder pockets with strips for openings exceeding 10 ft (3.1 m).
- d) One stay roll with attachment bolts required for the form of sill used.
- e) One bracket for each track bolt.
- f) Two half-oval chafing strips for back of door; two flat strips for front of door opposite of half-oval strips; bolts for fastening above strips together through door; length of strips to be 4 in (102 mm) less than width of door. Doors exceeding 8 ft (2.4 m) in height require three chafing strip assemblies. A rear-binder pocket strip to be employed in lieu of the top oval chafing strip on doors equipped with two rear-binder pockets.
- g) One strip 5 in (127 mm) less than width of door to take wear of stay roll; and wood screws for attachment.
- h) One wedge with screws for attachment.
- i) Handles with bolts and screws for attachment.
- j) One front bumper and one back bumper.
- k) Four bumper shoes and screws for attachment; each bumper shoe is made in two pieces.
- l) Washers for all wall bolts.
- m) Instructions for installation.

5 Flat Tracks

5.1 General

5.1.1 Flat tracks shall be made of flat-rolled steel with rounded edges 3-1/2 in (89 mm) wide and 3/8 in (9.5 mm) thick. Details are shown in Figure 5.1.

5.1.2 The length shall be equal to twice the width of the opening plus 21 in (533 mm). The length of the track is given in terms of the wall opening, 12 in (305 mm) being allowed for the lap and width of the door, 8 in (203 mm) for attaching front and back bumpers, and 1 in (25.4 mm) for clearance when the door is full open.

5.2 Holes for wall bolts

5.2.1 Holes for wall bolts shall be 13/16 in (20.6 mm) in diameter and located so that a wall bolt shall be placed directly opposite each hanger when the door is closed and so that front and back bumpers can be attached to the end bolts. See Figure 5.1 for details.

5.2.2 The location of bolt holes and the number and location of hangers are shown in Table 5.1 and Table 5.2.

5.2.3 The space (A) in Table 5.1 shall always be on the side of the door opening toward which the door closes. This is the lower end when the track is inclined.

5.2.4 Doors for openings in excess of 6 ft (1.8 m) in width shall require three hangers.

5.2.5 When the size of the door opening is not specified in Table 5.1 or Table 5.2, the proper interpolation shall be made for the bolt spacing in accordance with 5.2.6.

5.2.6 To determine the proper spacings for track bolt holes where the track is for an opening of a width not specified in Table 5.1 or Table 5.2, add to each of the spacings (excepting dimension "A" given in the table) for an opening of the next smaller width in the table than that width under consideration, a value "C" obtained from the formula:

$$C = 2 \frac{(D - d)}{(b - 1)}$$

in which:

C is the correction factor in inches or mm,

D is the width (in inches or mm) of opening under consideration,

d is the width (in inches or mm) of opening next smaller in table, and

b is the number of bolts required by Table 5.1 and Table 5.2 for track for width opening of size d.

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