



UL 181B

STANDARD FOR SAFETY

Closure Systems for Use With Flexible Air Ducts
and Air Connectors

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UL Standard for Safety for Closure Systems for Use With Flexible Air Ducts and Air Connectors, UL 181B
Third Edition, Dated January 8, 2013

Summary of Topics

This new edition of ANSI/UL 181B include the following changes in requirements:

Reference to major Codes that also reference UL 181B

Use of double sided tape during Peel Adhesion Tests

Description of the airplane cloth used in the Peel Adhesion Test

Editorial changes

Phase of conditioning at room temperature

The requirements are substantially in accordance with Proposal(s) on this subject dated September 7, 2012.

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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that have been revised and that have a future effective date are located after the Standard, and are preceded by a "SUPERSEDED REQUIREMENTS" notice.

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Standard for Closure Systems for Use With Flexible Air Ducts and Air Connectors

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Third Edition

January 8, 2013

The most recent designation of ANSI/UL 181B as an American National Standard (ANSI) occurred on January 8, 2013. The ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, or effective date information.

This ANSI/UL Standard for Safety consists of the Third Edition.

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 cover pressure-sensitive tapes, mastic systems, and non-metallic mechanical fasteners for use as a part of the closure system of factory-made flexible air ducts or air connectors complying with the Standard for Factory-Made Air Ducts and Air Connectors, UL 181.

1.2 These requirements cover only pressure-sensitive tapes intended for use at the core to fitting attachment and at the outer moisture barrier. When used at the core to fitting attachment, a mechanical fastener shall be installed over the tape. The tape shall be employed at this location such that it does not disrupt the connection of the mechanical fastener. When tape is used at the outer moisture barrier, mechanical fasteners may or may not be employed.

1.3 These requirements cover only mastic systems intended to be used with joints of factory-made flexible non-metallic air ducts or air connectors which employ mechanical fasteners (see 2.4). The joints, without mastics, shall comply with the requirements of the Standard for Factory-Made Air Ducts and Air Connectors, UL 181.

1.4 Mastic closure systems are intended for use as an additional seal at the attachment of the flexible non-metallic air duct cores (or air connectors). The mastic shall be installed uniformly around the mating surface of the fitting collar (i.e. sleeves, elbows, and the like) and in such a manner that it does not disrupt the connection of the mechanical fastener around the core.

1.5 These requirements cover only non-metallic mechanical fasteners intended for use at the core to fitting attachment and at the outer moisture barrier of factory-made flexible non-metallic air ducts or air connectors. When these non-metallic fasteners are used, beaded fittings are required, and a maximum positive operating pressure shall be limited to 6 inch water column (1.5 kPa). Multiple lengths of fasteners may be joined to achieve longer length.

1.6 Pressure-sensitive tapes, mastic closure systems, and non-metallic mechanical fasteners are intended for use with flexible air ducts and air connectors installed in accordance with the International Mechanical Code (IMC), International Residential Code (IRC), International Energy Conservation Code (IECC), Uniform Mechanical Code (UMC), Standard for the Installation of Air Conditioning and Ventilating Systems, NFPA 90A, and the Standard for the Installation of Warm Air Heating and Air Conditioning Systems, NFPA 90B; and/or other Model codes.