



AEROSPACE STANDARD	AS81765™	REV. A
	Issued 2002-02 Stabilized 2017-02	
	Superseding AS81765	
Insulating Components, Molded, Electrical, Heat Shrinkable, General Specification For		
FSC 5970		

RATIONALE

AS81765A is Stabilized. AS81765A is not authorized by AS50881 for aircraft applications. See AS23053 for heat shrink sleeves and AS85049 Category 5 for heat shrink boots.

STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE AE-8D Wire and Cable Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

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NOTICE

This document has been taken directly from U.S. Military Specification MIL-I-81765A, Notice 1 and contains only minor editorial and format changes required to bring it into conformance with the publishing requirements of SAE technical standards. The initial release of this document is intended to replace MIL-I-81765A, Notice 1. Any part numbers established by the original specification remain unchanged.

The original Military Specification was adopted as an SAE standard under the provisions of the SAE Technical Standards Board (TSB) Rules and Regulations (TSB 001) pertaining to accelerated adoption of government specifications and standards. TSB rules provide for (a) the publication of portions of unrevised government specifications and standards without consensus voting at the SAE Committee level, and (b) the use of the existing government specification or standard format.

Under Department of Defense policies and procedures, any qualification requirements and associated qualified products lists are mandatory for DOD contracts. Any requirement relating to qualified products lists (QPL's) has not been adopted by SAE and is not part of this SAE technical document.

1. SCOPE:

1.1 Scope:

This specification covers requirements for material used in electrical insulating heat shrinkable components. The continuous operating temperature of these materials shall range from -75°C to +200°C (-103°F to +392°F). (See 6.1).

1.2 Classification:

The properties of heat shrinkable molded components shall be as specified in the applicable specification sheet.

2. APPLICABLE DOCUMENTS:

2.1 Government Documents:

- 2.1.1 Specifications, and standards: Unless otherwise specified, the following specifications and standards of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation form a part of this specification to the extent specified herein.

SPECIFICATIONS

FEDERAL

O-S-1926	Sodium Chloride, Technical
VV-F-800	Fuel, Oil, Diesel
PPP-B-566	Boxes, Folding, Paperboard
PPP-B-591	Boxes, Shipping, Fiberboard, Wood-Cleated
PPP-B-636	Boxes, Shipping, Fiberboard
PPP-B-676	Boxes, setup
PPP-T-45	Tape, Gummed, Paper, Reinforced and Plain, for Sealing and Securing
PPP-T-76	Tape, Packaging, Paper (For Carton Sealing)

MILITARY

MIL-P-116	Preservation, Methods of
MIL-H-5606	Hydraulic Fluid, Petroleum Base, Aircraft, Missile and Ordnance
MIL-T-5624	Turbine Fuel, Aviation, Grade JP-4
MIL-L-7808	Lubricating Oil, Aircraft Turbine Engine, Synthetic Base
MIL-A-8243	Anti-Icing and Deicing-Defrosting Fluid
MIL-L-23699	Lubricating Oil, Aircraft Turbine Engines, Synthetic Base
MIL-B-43666	Box, Shipping, Consolidation
MIL-A-46864	Adhesive, Epoxy, Modified, Flexible, Two Component
MIL-D-50030	Decontamination Agent, DS-2

2.1.1 (Continued):

STANDARDS

MILITARY

MIL-STD-105 Sampling Procedures and Tables for Inspection by Attributes

MIL-STD-129 Marking for Shipping and Storage

(Copies of specifications, standards, handbooks, drawings, and publications and other Government documents required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting activity)

MILITARY SPECIFICATION SHEETS

MIL-I-81765/1A	Insulating Components, Molded, Electrical, Heat Shrinkable Polyolefin, Crosslinked, Semi-Rigid and Flexible
MIL-I-81765/2A	Insulating Components, Molded, Electrical, Heat Shrinkable Polychloroprene, Flexible, Crosslinked
MIL-I-81765/3A	Insulating Components, Molded, Electrical, Heat Shrinkable Silicone Rubber, Flexible, Crosslinked
MIL-I-81765/4A	Insulating Components, Molded, Electrical, Heat Shrinkable Fluoroelastomer, Flexible, Crosslinked
MIL-I-81765/5(AS)	Insulating Components, Molded, Electrical, Heat Shrinkable Butyl Rubber, Flexible, Crosslinked (Cancelled)
MIL-I-81765/6	Insulating Components, Molded, Electrical, Heat Shrinkable Fluoropolymer, Semi-Rigid, Crosslinked
MIL-I-81765/7	Insulating Components, Molded, Electrical, Heat Shrinkable Fluoropolymer Composite, Semi-Rigid, Crosslinked

2.2 Other publications:

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted shall be those listed in the issue of the DODISS, specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS shall be the issue of the nongovernment documents which is current on the date of the solicitation.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 149	Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies
ASTM D 257	D-C Resistance or Conductance of Insulating Materials
ASTM D 374	Thickness of Solid Electrical Insulation
ASTM D 412	Rubber Properties in Tension
ASTM D 570	Water Absorption of Plastics

2.2 (Continued):

ASTM D 635	Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position
ASTM D 747	Apparent Bending Modulus of Plastics by Means of a Cantilever Beam
ASTM D 792	Specific Gravity and Density of Plastics by Displacement
ASTM D 2240	Rubber Property - Durometer Hardness
ASTM D 2671	Testing Heat-Shrinkable Tubing for Electrical Use
ASTM D 3951	Commercial Packaging
ASTM G 21	Resistance of Synthetic Polymeric Materials to Fungi, Recommended Practice for Determining

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

Uniform Freight Classification Rules and Container Specification for Rail Shipments

(Application for copies should be addressed to the Uniform Freight Classification Committee, 202 Union Station, Chicago, Illinois 60606.)

National Motor Freight Classification Rules and Container Specifications for Truck Shipments

(Application for copies should be addressed to the National Classification Board, Sixteenth Street, Washington, D.C. 20002.)

(Nongovernment standards and other publications are normally available from the organizations which prepare or which distribute the documents. These documents also may be available in or through libraries or other informational services.)

2.3 Order of precedence:

In the event of a conflict between the text of this specification and the references cited herein (except for associated detail specifications, specification sheets or MS standards), the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS:

3.1 Specification sheets:

The heat shrinkable molded component requirements shall be as specified herein and in accordance with the applicable specification sheets. In the event of any conflict between the requirements of this specification and the specification sheet, the latter shall govern.

3.2 First article:

When specified in the contract or purchase order, a sample shall be subjected to first article inspection (see 4.3 and 6.2).