

 <i>An SAE International Group</i>	AEROSPACE STANDARD	SAE AS85080	REV. A
		Issued 2004-04 Stabilized 2012-03	
		Superseding AS85080	
Insulation Sleeving, Electrical, Shrinkable Without Heat, General Specification For			
FSC 5970			

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature. Design authorities may determine that this document is no longer to be used for new design. The product is not recommended for aircraft applications (see AS50881).

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NOTICE

This document has been taken directly from U.S. Military specification MIL-I-85080(AS), Amendment 1, Notice 1, Notice 2 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-85080(AS), Amendment 1, Notice 1, Notice 2. 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 technical report.

1. SCOPE:

1.1 Scope:

This specification establishes requirements for chemically expanded, flexible, electrical insulating sleeving that shrinks to a predetermined size upon solvent evaporation.

1.2 Classification:

The shrinkable sleeving shall be as specified in the applicable military specification sheet.

1.2.1 Colors: Colors, when applicable, shall be identified in accordance with the following:

<u>Designator</u>	<u>Color</u>	<u>Designator</u>	<u>Color</u>
0	Black	6	Blue
1	Brown	7	Violet (Purple)
2	Red	8	Gray (Slate)
3	Orange	9	White
4	Yellow	0	Clear
5	Green		

1.2.2 Part number designation: Part number designations under this specification shall be as follows:

M85080/XX
|
Applicable Specification
Sheet

-XXX
|
Class Size Identifier
(See Applicable Specifi-
fication Sheet)

-X
|
Color
Designator
(see 1.2.2)

2. APPLICABLE DOCUMENTS:

2.1 Issues of documents:

The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

SPECIFICATIONS

FEDERAL

SS-S-550	Sodium Chloride, Technical, For Water Softening Units
PPP-B-585	Box, Wood, Wirebound
PPP-B-601	Box, Wood, Cleated Plywood
PPP-B-621	Box, Wood, Nailed and Lock-Corners
PPP-B-636	Box, Shipping, Fiberboard
PPP-C-96	Can, Metal, 28 Gauge and Lighter

MILITARY

MIL-B-117	Bag, Sleeve and Tubing, Interior Packaging
MIL-H-5606	Hydraulic Fluid, Petroleum Base, Aircraft, Missile and Ordnance
MIL-T-5624	Turbine Fuel, Aviation, Grades JP-4 and JP-5
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 Engine, Synthetic Base
MIL-C-43616	Cleaning compound, Aircraft Surface

2.1 (Continued):

STANDARDS

FEDERAL

FED-TEST-MTHD-STD-228 Cable and Wire, Insulated, Methods of Testing

MILITARY

MIL-STD-104 Limit for Electrical Insulation Color

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

MIL-STD-120 Gage Inspection

MIL-STD-129 Marking for Shipment and Storage

SUPPLEMENT

MIL-I-85080/1 Insulation Sleeving, Electrical, Shrinkable Without Heat, Polyvinyl Chloride, Flexible, Non-Crosslinked

MIL-I-85080/2 Insulation Sleeving, Electrical, Shrinkable Without Heat, Silicone Rubber, Flexible

MIL-I-85080/3 Insulation Sleeving, Electrical, Shrinkable Without Heat, Polyurethane, Flexible

MIL-I-85080/4 Insulation Sleeving, Electrical, Shrinkable Without Heat, Chlorosulfonated Polyethylene, Flexible

MIL-I-85080/5 Insulation Sleeving, Electrical, Shrinkable Without Heat, Polychloroprene

(Copies of specifications, standards, drawings, and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications:

The following documents form a part of this specification to the extent specified herein, Unless otherwise indicated, the issue in effect on the date of invitation for bids or request for proposal shall apply.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 149-75	Dielectric Breakdown Voltage and Dielectric Strength of Electrical Insulating Materials at Commercial Power Frequencies.
D 374-74	Tests for thickness of Solid Electrical Insulation
D 412-75	Tension Testing of Vulcanized Rubber
D 570-63	Testing for Water Absorption of Plastics
D 638-72	Test for Tensile Properties of Plastic
D 876-71	Testing for Nonrigid Vinyl Chloride Polymer Tubing
D 882-73	Test for Tensile Properties of thin Plastic Sheeting
G 21-70	Recommended Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi

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

Technical society and technical association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal Agencies.

3. REQUIREMENTS:

3.1 Specification sheets:

The individual item 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 Data:

No data is required by this specification or by the applicable documents referenced in section 2 of this specification unless specified by the contracting officer.

3.3 Toxicity:

The material shall have no adverse affect on the health of personnel when used for its intended purpose. Questions pertinent to this effect shall be referred by the procuring activity to the appropriate departmental medical service who will act as advisor to the procuring agency.

3.4 Dimensions:

Dimensions and tolerances for "as supplied" ID, after unrestricted shrinkage ID, wall thickness and longitudinal change shall be measured as specified in 4.6.4 and be in accordance with the applicable specification sheet.

3.5 Unit of Issue:

Procurement documents should specify unit of issue as foot. Packaging "put-ups" shall be in lengths as specified in the contract or order (See 6.2).

3.6 Properties:

Properties shall be as specified in Table I. Unless otherwise specified, data shall be obtained on recovered (shrunk) sleeving.

Table I. Properties

Property	Requirement	Test Method
Water absorption	Specification sheet	4.6.2 ASTM D 570 <u>2/</u>
Dielectric Strength	Specification sheet	4.6.2 ASTM D 876
Volume Resistivity	Specification sheet	4.6.2 ASTM D 876
Fungus resistance	No growth	4.6.2 ASTM G 21
Color	MIL-STD-104	Visual inspection
Voltage withstand	Specification sheet	4.6.5
Low Temperature flexibility	Specification sheet	4.6.6
Heat shock	Specification sheet	4.6.7
Heat resistance	Specification sheet	4.6.8
Corrosion	Specification sheet	4.6.9 <u>1/</u>
Fluid resistance	Specification sheet	4.6.10
Odor	No objectionable pungent aroma	4.6.11
Modulus	Specification sheet	4.6.12
Tensile strength	Specification sheet	4.6.13
Ultimate elongation	Specification sheet	4.6.13
Flammability	Specification sheet	4.6.14
Color stability	Conforms to as received limits	4.6.15
<u>1/</u> See specification sheet for test method		
<u>2/</u> When testing small (ID) sleeving, special care shall be taken to remove all surface water from the inner wall before reweighing.		