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4 September 1987
SUPERSEDING
MIL-I-3190/2
30 May 1986

MILITARY SPECIFICATION SHEET

INSULATION SLEEVING, ELECTRICAL, FLEXIBLE, COATED, CLASS 130, TYPE B, CATEGORY b

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the insulation sleeving described herein shall consist of this document and the latest issue of MIL-I-3190.

The sleeving shall be of the following classification:

Class 130, type B, category b.

REQUIREMENTS:

The insulation sleeving shall be in accordance with tables I, II, and III.

TABLE I. Performance requirements.

Property	Conditioning prior to test	Test	Unit	Value required
Dielectric breakdown				
Straight	96/23/50	4.7.2.2	Volts (minimum average)	8,000
Straight	96/23/50	4.7.2.2	Volts (minimum individual)	6,000
Straight	96/23/96	4.7.2.2	Percent of average value obtained on test after condition 96/23/50 (minimum)	50
Straight	At temperature of 130°C	4.7.2.2	Volts (minimum average)	3,500
90 degree bend	2/130	4.7.2.3	Volts (minimum average)	6,000

AMSC N/A
FSC 5970

DISTRIBUTION STATEMENT A Approved for public release; distribution unlimited

TABLE I. Performance requirements, - Continued

Property	Conditioning prior to test	Test	Unit	Value required
Resistance to potting temperature	15 minutes at 225°C	4.7.3	Observation	Shall not blister, soften or embrittle
			Percent retention of dielectric breakdown (minimum)	75
Cold brittleness	96/23/50	4.7.4	Degrees Celsius (maximum)	Minus 20
Flammability:				
Burning time	96/23/50	4.7.5.1 method A	Seconds (maximum average)	30
Length burned			See 4.7.5.1	The paper indicator shall not be affected
Oil and solvent resistance:	96 hours immersion at 23°C	4.7.6.2		
Swelling oil			Observation	Shall not disintegrate, peel or crack
Xylol			Observation	Shall not disintegrate, peel or crack
1,1,1-Trichloroethane (inhibited)			Observation	Shall not disintegrate peel or crack
Thermal endurance	See 4.7.9	4.7.9	Temp. index (°C) at 15000 hours (minimum)	130
Thermal stability	96/175	4.7.10	Volts (minimum average)	4,500
* Hydrolytic stability	336 hours over water at 70°C	4.7.7	Volts: (Minimum average)	5,000 volts
			Observation	No disintegration, reversion or tackiness

TABLE II. Qualification inspection requirements.

Examination or test	Requirement	Test	Minimum number of tests for each size and for each condition as specified in table I
Visual examination	3.3, 3.6	4.6	10
Dimensions	3.4	4.7	10
Dielectric breakdown:			
Straight - 96/23/50, 96/23/96 and at temperature	Table I	4.7.2.2	10
90 degree bend	Table I	4.7.2.3	5
Resistance to potting temperature	Table I	4.7.3	3
Cold brittleness	Table I	4.7.4	As specified in 4.7.4
Flammability	Table I	4.7.5.1 method A	5
Oil and solvent resistance:			
Swelling oil	Table I	4.7.6.2	3
Xylol	Table I	4.7.6.2	3
1,1,1-Trichloroethane, inhibited	Table I	4.7.6.2	3
Thermal endurance	Table I	4.7.9	See 4.7.9
* Hydrolytic stability	Table I	4.7.7	5

TABLE III. Quality conformance inspection requirements.

Examination or test	Requirement	Test	Conditioning prior to test	Minimum number of tests per sample unit
Visual examination	3.3, 3.6	4.6	96/23/50	As required per sampling
Dimensions	3.4	4.7	96/23/50	As required per sampling
Dielectric breakdown:				
Straight	Table I	4.7.2.2	96/23/50	10
			96/23/96	10
Flammability	Table I	4.7.5.1 method A	96/23/50	5
Solvent resistance:				
Xylol	Table I	4.7.6.2	96 hours immersion at 23°C	3
Thermal stability	Table I	4.7.10	96/175	5

Intended use. The temperature index for this class of sleeving is 130°C. The material is intended for applications in electrical equipment requiring primary insulation having good flexibility, medium moisture resistance and providing adequate mechanical protection. It should be used where possible corrosion produced by any release of chlorine from the polyvinyl chloride would not be objectionable. The sleeving is of the thermoplastic type.

Changes from previous issue. The margins of this specification are marked with asterisks to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Custodians:
Navy - SH
Air Force - 20

Review activities:
Army - AR, AV, EA, MI
Navy - EC
Air Force - 85, 99, 80
DLA - GS

User activities:
Army - ME
Navy - MC, OS

Preparing activity:
Navy - SH
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