MIL-I-23594C 31 March 1988 SUPERSEDING MIL-I-23594B 30 July 1971

MILITARY SPECIFICATION

INSULATION TAPE, ELECTRICAL; HIGH TEMPERATURE, POLYTETRAFLUOROETHYLENE, PRESSURE-SENSITIVE

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

1. SCOPE

1.1 Scope. This specification covers the requirements for polytetrafluoroethylene, high temperature insulating, pressure-sensitive adhesive, electrical tapes (see 6.1).

1.2 Classification.

1,2.1 Type. Tapes shall be furnished in the following types, as specified (see 6.2.1):

Type I - Smooth backing.

Type II - Treated backing (for insulation varnish).

1,2.2 Class. Tapes shall be furnished in the following classes as specified (see 8.2):

Class	Backing thickness (mils)
1 2 3 4	1.5 to 2.5 2.6 to 3.5 3.6 to 4.5 4.6 to 5.5 5.6 to 6.5
5 8	6.6 to 7.5

2. APPLICABLE DOCUMENTS

2,1 Government documents.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Systems Engineering and Standardization Department (Code 53), Naval Air Engineering Center, Lakehurst, NJ 08733-5100, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

2.1.1 Specifications and standards. The following specifications and standards form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation.

SPECIFICATIONS

Federal	
QQ-S-766	Steel Plates, Sheets and Strip - Corrosion Resisting
77~7~297	Thinner; Paint, Mineral Spirits, Regular and Odorless
PPP-8-566	Box, Folding, Paperboard
PPP-B-636	8oxes, Shipping, Fiberboard
PPP-B-665	Boxes, Paperboard, Metal Edged and Components
PPP-B-676	8oxes, Setup
PPP-T-60	Tape, Packaging, Waterproof
PPP-T-76	Tape, Pressure-Sensitive Adhesive Packaging/ Paper (for Carton Sealing)
Military	
MIL-P-116	Preservation, Methods of
MIL-P-5425	Plastic, Sheet, Acrylic, Heat Resistant
MIL-V-13811	Varnish, Waterproofing, Electrical, Ignition
STANDARDS	
Federa 1	
FED-STD-101	Test Procedures for Packaging Materials
Military	
MIL-STD-105	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129	Marking for Shipment and Storage

(Copies of specifications, standards 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.)

2.1.2 Other Government documents (publications). The following other Government document (publication) forms a part of this specification to the extent specified herein. Unless otherwise specified, the issues shall be those in effect on the date of the solicitation.

PUBLICATIONS

Code of Federal Regulations

DEPARTMENT OF TRANSPORTATION - Title 49 - Transportation

(Application for copies should be addressed to the Superintendent of Documents, Government Printing Office, Washington, DC 20402.)

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 issue 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 0 257	Test Methods for DC Resistance or Conductance of Insulating Materials
ASTM D 570	Water Absorption of Plastics
ASTM D 792	Specific Gravity and Density of Plastics by Displacement
ASTM D 1457	PTFE Molding and Extrusion Materials, Specification for
ASTM D 3330	Peel Adhesion of Pressure-Sensitive Tape at 180 Degree Angle
ASTM D 3652	Thickness of Pressure-Sensitive and Gummed Tapes
ASTM D 3715	Quality Assurance of Pressure-Sensitive Tapes
ASTM D 3759	Tensile Strength and Elongation of Pressure- Sensitive Tapes
ASTN 0 3813	Curling and Twisting on Unwinding of Pressure- Sensitive Tapes
ASTM 0 3951	Practice for Commercial Packaging

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

(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.)

2.2 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein (except for the 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 First article. When specified (see 6.2.1), the contractor shall furnish finished packaged rolls of tape for the first article inspection. The tape may be either a preproduction item or an initial production item which conforms to the requirements of this specification. In either case, the approved first article and the production items shall be identical and in accordance with the terms of the contract. Approval of the first article shall not relieve the contractor of the responsibility to furnish tape in accordance with the requirements of this specification.

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3.2 Haterial.

- 3.2.1 Backing. Backing shall be fused polytetrafluoroethylene resin, 100 percent new material which has not been subjected to any process not essential to its manufacture. Type II backing shall be treated to accommodate an insulation varnish.
- 3.2.1.1 <u>Backing thickness</u>. The thickness of the backing (exclusive of adhesive thickness) shall be such that the tensile strength and dielectric breakdown requirements of Table I shall be net and in no case shall the backing thickness be less than 1.5 mils (0.038 mm). The backing thickness shall be as specified in the contract or order (see 6.2.1).
- 3.2.1.2 <u>Certification on backing</u>. The manufacturer shall certify that the backing material complies with the following:
 - a. Reprocessed material has not been used in the manufacture of the product.
 - b. Melting point to be $590 \pm 20^{\circ}$ F (310 \pm 10°C) when tested as specified in ASTM D 1457.
 - c. Specific gravity to be 2.15 to 2.21 when tested as specified in ASTM D 792, Method A.

3.2.2 Adhesive. The adhesive shall be a pressure-sensitive silicons polymer and shall not require heat treatment or other special means of preparation prior to application.

3.3 Design and construction.

- 3.3.1 Rolls. The tape shall be uniformly and smoothly wound in rolls, adhesive side in, without liner or separator, on cores having a tolerance of +1/16 inch (1.6 mm) of the nominal inner diameter specified in the contract or order. The cores shall have sufficient rigidity to prevent distortion of the roll under normal conditions of use. When required, liners shall be used with Type II materials.
- 3.3.2 Splices. The tape shall be one continuous strip with no splices allowed on a 36-yard (32.9 m) roll. For rolls greater than 36 yards, the contracting activity shall specify the number of splices allowed (see 6.2).
- 3.4 Shelf life. When packaged in accordance with 5.1 and stored under ordinary temperate zone warehouse conditions where temperatures of -15°C to 50°C are possible, the tape shall meet all of the requirements of this specification for a minimum of 1 year after date of receipt at destination. The shelf life may be extended by the procuring activity (6.2.1) for 1 year intervals after reacceptance testing for conformance to adhesion requirements of 3.9.

3.5 Dimensions.

- 3.5.1 Width. Unless otherwise specified, the tape shall be furnished in 1/2, 1, 1-1/2 and 2 inch (13, 25, 38 and 51 mm) widths with a tolerance of 1/64 inch (0.4 mm) as specified in the contract or purchase order (see 6.2.1).
- 3.5.2 <u>Length</u>. The length of tape in the roll shall be 36 yards (32.9 m) or as specified in the contract or purchase order (see 6.2.1).
- 3.6 <u>Color</u>. The manufacturer shall supply tape having the same backing color during the contract or purchase order.
- 3.7 Marking of the rolls. Each roll of tape shall be marked in or on the edge of the core with the manufacturer's name and designation of the product and the specification number, type and class of tape. In addition, for direct Government purchases, each roll of tape shall be marked in or on the edge of the core with numerals or letters indicating the month and year of manufacture. The markings shall not be required on rolls of less than 3/4 inch (19 mm) width nor shall they be required on tapes having a core diameter of 1-1/2 inches (38 mm) or less.
- 3.8 Workmanship. The process of manufacture shall be such as to assure compliance with the requirements of this specification. The adhesive shall be applied to the backing in a smooth and uniform coating and the finished tape shall contain no bare spots or lumps.
- 3.9 Physical properties. When tested as specified in 4.8, the tape shall conform to the requirements specified in Table I.

TABLE I. Physical properties.

Property	Applicable types	Unit	Requirements	Test paragraph
Elongation	I, II	Percent (min)	100	4.8.1
Moisture absorption	l, il	Percent (max)	0.1	4.8.2
Volume resistivity	I, II	Ohm-cm (min)	10 14	4.8.3
Adhesion as received	l, II	Ozs/in. width (min) N/mm width (min)	16 0.175	4.8.4
Holding power at elevated temperature	I, (1	Hours (min)	l (1/8 inch (3 mm) slippage allowed)	4.8.5
Varnish adhesion	II	UP 78.	No bare spots permis- sible after air drying of varnish. Insulation varnish shall not crack or peel away from treated backing.	4.8.6
Resistance to curling and twisting	I, II	Curl to nearest 1/64 in. (0.4 mm); twist to nearest 5° of arc	3 in. (76 mm) max curl; tape shall not curl back on self. 360° max twist; tape shall not twist back on self.	4.8.7

Racking Thickness, Required Tensile Strength and Dielectric Breakdown Values					
Backing thickness (see 4.8.8)		Tensile strength (see 4.8.9)		Dielectric breakdown (see 4.8.10)	
mils	mm	Type I a lbs/in. width		Type I (volt:	Type II s-min)
1.5 - 2.5	0.038065	7.0	1.23	4,200	3,800
2.6 - 3.5	0.066089	12.0	2.10	7,200	6,500
3.6 - 4.5	0.090115	17.0	2.98	10,300	9,000
4.6 - 5.5	0.116141	22.0	3.85	12,700	11,500
5.6 - 6.5	0.142166	27.0	4.73	15,400	14.000
5.6 - 7.5	0.167191	32.0	5.60	18,000	16,500

4. QUALITY ASSURANCE PROVISIONS

- 4.) Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.
- 4.1.1 Responsibility for compliance. All items must meet all requirements of Sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.
- 4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:
 - a. First article inspection (see 4.3),
 - b. Quality conformance inspection (see 4.4).
- 4.3 First article inspection. First article inspection shall be applied to the initial production item noted in 3.1. Unless otherwise specified (6.2.1), first article inspection shall consist of the end product examinations specified in 4.6 and all the physical property tests in Table I. Failure of the first article to pass any examination or test shall be cause for rejection.
- 4.3.1 First article samples. Samples for first article inspection shall consist of five rolls of tape which have been produced by the contractor using the same production process, procedures and equipment as will be used in fulfilling the contract. Samples shall be forwarded to and tested at a laboratory approved by the Naval Air Development Center for conducting the first article inspection tests. Information on approved test laboratories may be obtained from the Commander, Naval Air Development Center, Code 6062, Warminster, PA 18974-5000. Samples shall be plainly marked with the following information:

Insulation Tape, Electrical; High Temperature,
Polytetrafluoroethylene, Pressure-Sensitive
Samples for first article inspection testing
Type and class (indicate type and class)
Name of manufacturer (plant in which material is manufactured)
Manufacturer's designation
Date of manufacture
Submitted by (name) (date) for Contract No.

The manufacturer shall submit a copy of test results with the samples showing conformance with the first article inspection requirements of this specification (see 3.1, 6.2 and 6.4).

- 4,3.2 Rejection. If any sample fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate its inspection upon any failure of the sample to comply with any of the stated requirements.
- 4.3.3 First article samples and inspection for a subsequent contract. If a contractor has previously furnished the tape in accordance with the requirements of this specification and his product has been found satisfactory, the requirement for a first article sample and its submittal for any subsequent contract or order may be waived at the discretion of the acquiring activity.
- 4,4 Quality conformance inspection. A lot shall consist of all the tape of the same type and thickness produced by one manufacturer, at one plant, from the same materials, and under essentially the same conditions provided the operation is continuous. In the event the process is a batch or discontinuous operation, each batch shall constitute a lot.
- 4.5.2 Sampling for quality conformance inspection. A sample unit shall be defined as one roll of tape of the type submitted for testing. A sample shall consist of the number of rolls found according to 4.5.2.1 and in addition, one 20 by 20 inch (500 by 500 mm) piece (or equivalent area in smaller pieces but not less than 3 by 3 inches (75 by 75 min)) of backing materials without adhesive mass. This 20 by 20 inch piece shall have received any or all surface treatments except for the adhesive coating which the tape backing receives. In selecting rolls for the sample, each container, if more than one, and each roll within a container shall have an equal chance of being represented in the sample.
- 4.5.2.1 Sample size. The number of rolls of tape shall be found in ASTM D 3715 in the sampling plan table for inspection by attributes. The sample size shall be based on lot size and reduced inspection level.
- 4.5.2.2 Acceptable Quality Level (AQL). The AQL for the physical property tests listed in Table 1 shall be 2.5%. Rejection shall be as specified in ASTM D 3715 in the sampling plan table for inspection by attributes.
- 4.5.2.3 Specimens. A minimum of three specimens shall be taken from each sample roll and subjected to the tests listed in Table I.
- 4.5.3 <u>Sampling for end product examination</u>. A sample unit for these examinations shall be defined as one roll of the type of tape submitted for examination. The sampling plan shall be in accordance with MIL-STD-105, Inspection Level and AQL as listed in Table II.

TABLE II. Sample size and acceptance criteria.

Inspection or characteristic	Test method	Inspection level	AQL
Examination for appearance and workmanship	4.6.1	5-3	2.5
Examination for dimensional defects	4.6.2	S-3	2,5
Examination for packaging	4.6.3	S-2	6.5

4.8 Examinations.

4.6.1 Examinations of the end product for defects in appearance and workmanship. Sample rolls shall be examined for the following defects:

Examine	Defects		
Form	Not wound evenly Adhesive side not wound in Core not rigid Core diameter not within 1/16 in. (1.6 mm) of value specified on contract or order Blisters, creases, folds or packers		
Color	Not uniform from lot to lot Not uniform within lot		
Workmanship	Hole, cut or tear Adhesive missing Presence of dirt, foreign material or embedded particles		

4.6.2 Examination of the end product for dimensional defects. The sample taken in 4.6.1 shall be utilized for examination of the following defects:

Examine	Defects
Splices	Roll not one continuous strip or not as specified in contract
Width	Not as specified in the contract Not within tolerance of \pm 1/64 inch (0.4 mm)
Length	Less than 36 yards (32.9 m) or less than specified in contract
Marking on rolls (when required)	Not present Illegible Incorrect Incomplete Ones not appear on core edge or in core

4.8.3 Examination of the end product for defects in packaging. An examination shall be made to determine that the packaging, packing and markings comply with the requirements of Section 5.

NOTE: The containers from which the sample rolls are selected for examination under 4.6.1 and 4.6.2 shall also be used for examination under 4.6.3.

4.7 Inspection conditions.

- 4.7.1 Sample rolls. The first three turns of tape shall be removed and discarded from each sample roll of tape prior to testing.
- 4.7.1.1 Test specimens. Five specimens shall be run for each test unless otherwise specified. Three feet (0.9 m) of tape shall be removed from the running end of each roll for the initial starting point. There shall be a three foot interval between specimens for each test.
- 4.7.2 Tape conditioning. All tape selected for testing shall be conditioned for 24 hours at $73 \pm 3.5^{\circ}F$ (23 \pm 2°C) and 50 \pm 5% relative humidity and shall be tested under these conditions unless otherwise specified in the method of test.
- 4.7.3 Device for application of tape. Unless otherwise specified, the device for application of the tape for test purposes shall consist of a horizontally mounted, free turning, rubber coated roller with the following dimensions:

Total weight: $4.5 \div 0.1$ pound (2.00 + 0.05 kg)

Width: 1.75 ± 0.1 inch $(44.5 \pm 2.5 \text{ mm})$

Diameter: 3.25 ± 0.1 inch (82.5 ± 2.5 mm)

The roller shall be faced with 1/4 inch (6.4 mm) of rubber with a Shore scale A durometer hardness of 80 ± 5 . The roller shall be propelled lengthwise back and forth over the tape at a rate of 12 inches/minute (305 mm/min) in such a manner that only the weight of the roller rests on the tape. The device can be either manually or mechanically operated. The adhesive side of the tape shall not be touched during application. For referee purposes, the device shall be mechanically operated.

4.8 <u>Methods of inspection</u>.

- 4.8.1 Elongation. The elongation tests shall be conducted in accordance with ASTM D 3759. The elongation value shall be measured by determining the distance elongated between bench marks two inches (51 mm) apart by use of a scale.
- 4.8.2 Moisture absorption. The moisture absorption test shall be conducted in triplicate in accordance with ASTM D 570. Tests shall be conducted on the backing material without the adhesive mass.

- 4,8.3 Volume resistivity. Volume resistivity tests shall be conducted in accordance with ASTM D 257.
- 4.8.4 Adhesion as received. The adhesion as received shall be determined in accordance with ASTM D 3330.
- 4.8.5 Holding power at elevated temperature. The holding power at elevated temperature shall be determined in accordance with Method 2054 of FED-STD-101, as modified in 4.8.5.1 to conduct the test at 500°F (260°C).
- 4.8.5.1 Procedure. The panel shall be placed in an oven, a 100-gram load shall be uniformly applied to the free end of the tape, and the oven temperature raised to 500°F (260°C) in approximately I hour. After I hour at 500°F, the specimen shall be examined for slippage. One-eighth inch (3 mm) maximum slippage shall be allowed. Three specimens shall be tested. Failure of more than one specimen to meet the requirement shall be cause for rejection.
- 4.8.6 Varnish adhesion (Type II only). An insulation varnish meeting the requirements of MIL-V-13811 shall be applied to a six-inch (152 mm) length of the treated backing to an approximate thickness of four mils (0.100 mm) and dried for 72 hours. After drying, the tape shall be examined for uniformity of the varnish film and complete surface wetting. The tape shall then be bent 180° over a 1/8 inch (3 mm) mandrel. The specimen, after bending, shall be examined for cracking or peeling away of insulation varnish from backing.
- 4.8.7 Resistance to curling and twisting. The resistance to curling and twisting on unwinding shall be determined in accordance with ASTM D 3813.
- 4.8.8 Backing thickness. The thickness of the backing (exclusive of adhesive thickness) shall be determined in accordance with ASTM D 3652.
- 4.8.9 Tensile strength. The tensile strength tests shall be conducted in accordance with ASTM D 3759.
- 4.8.10 <u>Dielectric breakdown</u>. Dielectric breakdown shall be conducted on the primed, etched or other surface treated backing material without the adhesive mass. The apparatus shall be as described in ASTM D 149 utilizing the short-time test with air as the medium. The transformer and source of supply of energy shall be rated not less than 2 kVA. The frequency shall not exceed 100 Hz. The electrodes shall be opposing cylindrical brass rods 1/4 inch (6.4 mm) in diameter with edges rounded to a radius of 1/32 inch (0.8 mm). The upper movable electrode shall weigh 0.1 ± 0.005 pound $(0.045 \pm 0.002 \text{ kg})$. A special testing device may be necessary whereby the test specimen shall be clamped under pressure in order to prevent flashover around the edges of the material. The voltage shall be increased at a rate of 500 volts/sec.

5. PACKAGING

- 5.1 Preservation. Preservation shall be level A or B as specified (see 5.2.1).
 - S.1.1 Level A.

- 5.1.1.1 Cleaning. Cleaning shall be accomplished by method C-l of MIL-P-116. Tape shall be free of foreign particles.
- 5.1.1.2 Unit packing. Tape shall be individually packaged in boxes conforming to PPP-8-566, Variety 2, in accordance with Method III of MIL-P-116.
 - 5.1.2 Level B.
- 5.1.2.1 Cleaning. Cleaning shall be accomplished by Method C-1 of MIL-P-116. Tape shall be free of foreign particles.
- 5.1.2.2 Unit packing. Tape shall be individually packaged in boxes conforming to PPP-B-566 (Variety 2), PPP-B-676 or PPP-B-665.
- 5.2 Packing. Packing shall be level A, B or Commercial as specified (see 6.2.1). Exterior containers (see 5.2.1, 5.2.2 and 5.2.3) shall be of a minimum tare and cube consistent with the protection required and shall contain equal quantities of identical stock numbered items to the greatest extent practicable.
- 5.2.1 Level A. The tape, preserved as specified in 5.1, shall be packed in wooden containers conforming to PPP-B-585, Class 3. Closure and banding shall be in accordance with the Appendix of PPP-B-585.
- 5.2.2 Level B. The tape, preserved as specified in 5.1, shall be packed in fiberboard containers conforming to PPP-B-636, Class Weather Resistant, Style Optional, Special Requirements. Closure shall be in accordance with the appendix thereto.
- 5.2.3 Commercial. The tape, preserved as specified in 5.1, shall be packed in accordance with ASTII D 3951.
- 5.3 Marking. In addition to any special or other identification marking required by the contract (see 6.2.1), each unit, supplementary, intermediate and exterior container shall be marked in accordance with MIL-STD-129. The complete military or contractor's type or part number, as applicable (including the FSCM), shall be marked on all unit, supplementary and intermediate packs in accordance with the identification marking provisions of MIL-STD-129 and include the following requirements:
 - a. Width and length of tape.
 - b. Type, Class.
 - d. Date of manufacture (month and year).
 - e. Manufacturer's name and address.
- 5.4 Packaging inspection. The inspection of these packaging requirements shall be in accordance with 4.6.3.

6. NOTES

- 5.1 Intended use. The pressure-sensitive tapes covered by this specification are suitable for electrical systems of underwater ordnance equipment, aircraft, missile and other weapons systems within the limitations of the performance requirements.
- 6.1.1 Type I. Type I tape is intended for splicing insulation of polytetrafluoroethylene-coated electrical wire suitable for continuous operation at 500°F (260°C) and where a minimum of 15 lbs/inch (2.63 N/mm) of tensile strength is required for watertight seals around blasting cap and detonating cord, lap splicing of firing cable to prevent shorting out of firing circuit, watertight seals around junctions of non-elastic caps and safety fuses, and general use in underwater demolition.
- 8.1.2 Type II. Type II tape is intended for use in electrical equipment where it is necessary to impregnate with insulation varnish after application of the tape.

6.2 Ordering data.

- 8.2.1 Acquisition requirements. Acquisition documents should specify the following:
 - a. Title, number and date of this specification.
 - b. Type and class (see 1.2).
 - c. First article, if required (see 3.1).
 - d. Inside diameter of core, specify size desired (see 3.3.1).
 - e. Shelf life (see 3.4).
 - f. Width (see 3.5.1).
 - g. Length of tape in roll (see 3.5.2). If other than 36 yards in roll, specify length desired and number of splices allowed (see 3.3.2).
 - h. Levels of preservation and packing required and additional marking (see 5.1, 5.2 and 5.3).
- 6.3 Tape storage. The tape shall be stored in the original container, preferably in a cool location at $75 + 5^{\circ}F$ (24 + 3°C) and 50% relative humidity. It should not be stored close to steam pipes, radiators or other sources of heat.
- 6.4 First article. When a first article inspection is required, the item should be a preproduction or initial production sample. The contracting officer should include specific instructions in acquisition documents

regarding arrangements for examinations, approval of first article test results and disposition of first articles. Invitations for bids should provide that the Government reserves the right to waive the requirement for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the Government, and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract.

6.5 Subject term (keyword) listing.

Electrical
High temperature
Insulation
Polytetrafluoroethylene
Pressure-sensitive adhesive
Underwater ordnance

6.6 Changes from previous issue. Asterisks (or vertical lines) are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Preparing Activity:

Navy - AS (Project 5970-1001)

Custodians:

Army - ER

Navy - AS

Air Force - 85

Review Activities:

Army - MI

Navy - EC

AF - 99

DLA - GS

User Activities:

Navy = 05

Army - SM, ME

Civilian Agencies Coordinating Activities:

NA

Miscellaneous DOD/NASA Participation:

DS

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NOTE: This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

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MIL-I-23594C	Polytetrafluorcethylene	Pressure	
2 NAME OF SUBMITTING ORGAN	IIZAT100		4. TYPE OF ORGANIZATION (Mark cost)
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			usen
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			MANUFACTURER
			OTHER (Specify):
S. PROBLEM AREAS	uttivis ettävä tii välikkoistutta siitettiin oles ettiseen ei olistata vasta suutuvateta vasta suoteeta vastas		
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