

MIL-I-3374A

25 JULY 1955

SUPERSEDING

MIL-I-3374

18 JANUARY 1951

MILITARY SPECIFICATION**INSULATION CLOTH AND TAPE, ELECTRICAL,
VARNISHED CAMBRIC***This specification has been approved by the Department of Defense
for use of the Departments of the Army, the Navy, and the Air Force.***1. SCOPE**

1.1 Scope.—This specification covers insulation intended for use as cable insulation, coil wrappers, and for insulating bus bars, joints and terminals of electric wires and cables winding insulation and other electrical apparatus connection.

1.2 Classification.—Insulation shall be of the following types and classes, as specified (see 6.2):

- Type I—Cloth
 - Class 1—Bias cut
 - Class 2—Straight cut
- Type II—Tape
 - Class 1—Bias cut
 - Class 2—Straight cut

2. APPLICABLE DOCUMENTS

2.1 The following specifications and standards, of the issue in effect on date of invitation for bids, form a part of this specification:

SPECIFICATIONS**FEDERAL**

- NN-B-591 —Boxes, Fiberboard, Wood-Cleated (for Domestic Shipment).
- NN-B-621 —Boxes, Wood, Nailed and Lock-Corner.
- NN-B-631 —Boxes, Wood, Wirebound (for Domestic Shipment).
- UU-P-268 —Paper Kraft, Wrapping.

- UU-T-111 —Tape, Paper, Gummed (Kraft).
- CCC-T-191 —Textile Test Methods.
- LLL-B-631 —Boxes; Fiber Corrugated (for Domestic Shipment).
- LLL-B-636 —Boxes, Fiber, Solid, (for Domestic Shipment).
- PPP-B-566 —Boxes, Folding, Paperboard.
- PPP-B-601 —Boxes, Wood-Cleated, Plywood.
- PPP-B-676 —Boxes, Set-Up, Paperboard.

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- JAN-P-103 —Packaging and Packing for Overseas Shipment—Boxes; Wood-Cleated, Solid Fiberboard.
- JAN-P-106 —Packaging and Packing for Overseas Shipment—Boxes; Wood, Nailed.
- MIL-B-107 —Boxes, Wood, Wirebound (Overseas Type).
- JAN-P-108 —Packaging and Packing for Overseas Shipment—Boxes, Fiberboard (V-Board and W-Board), Exterior and Interior.
- JAN-P-125 —Packaging and Packing for Overseas Shipment—Barrier-Materials, Waterproof, Flexible.
- MIL-A-140 —Adhesive, Water-Resistant, Waterproof Barrier Material.

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MIL-B-10377 --Boxes, Wood - Cleated,
Veneer, Paper Overlaid.

MIL-L-10547 --Liners, Case, Waterproof.

STANDARDS**MILITARY**

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

MIL-STD-129--Marking for Shipment and
Storage.

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

2.2 Other publications.—The following documents form a part of this specification. Unless otherwise indicated the issue in effect on date of invitation for bids shall apply

**AMERICAN SOCIETY FOR TESTING
MATERIALS**

Methods of Test for Varnished
Cloths and Tapes (D295).

(Application for copies should be addressed to the American Society for Testing Materials, 1916 Race Street, Philadelphia 3, Pa.)

**CONSOLIDATED CLASSIFICATION COMMITTEE
Consolidated Freight Classification
Rules.**

(Application for copies should be addressed to the Consolidated Classification Committee, 202 Chicago Union Station, Chicago 6, Ill.)

3. REQUIREMENTS

3.1 Fabric.—The fabric shall be a closely and uniformly woven cotton material free from unsightly defects such as dirt, knots, lumps, and irregularity of twist. When determined as specified in 4.4.3.4, the minimum thread count per inch shall be 60 for the warp and 55 for the filler.

3.2 Varnish coating.—The highest grade of baking varnish shall be used. The varnish shall be such that the finished material shall be yellow in color. The number of coats used shall be such that the finished material meets all dimensional and performance requirements of this specification. The varnish coating shall adhere to the fabric and shall not

crack when the cloth or tape is doubled upon itself (zero radius) (see 4.4.4). The varnish film shall not crack when bent after aging for 150 hours at $125^{\circ} \pm 1^{\circ}\text{C}$ as specified in 4.4.6.

3.3 Finish.—The finished material shall be of uniform thickness, free from wrinkles, creases, blisters, and other imperfections. It shall have a smooth, uniformly high gloss surface, with a slightly "waxy" or "greasy" finish.

3.4 Dimensional requirements.—

3.4.1 Thickness.—Unless otherwise specified in the contract or order, cloth and tape shall be furnished in the thicknesses shown in table I, as specified (see 6.2).

TABLE I—Thickness, types I and II.

Nominal	Minimum	Maximum
<i>Inch</i>	<i>Inch</i>	<i>Inch</i>
0.007	0.0060	0.0080
.010	.0090	.0110
.012	.0110	.0132

3.4.2 Width.—

3.4.2.1 Type I.—The nominal width, untrimmed, shall be one yard. The width, trimmed, shall be not less than 35 inches. Unless otherwise specified in the contract or order, the cloth shall be furnished trimmed.

3.4.2.2 Type II.—Tape shall be furnished in the following nominal widths, as specified (see 6.2), with a tolerance of not greater than $\frac{1}{32}$ inch:

TABLE II—Widths.

Widths
<i>Inches</i>
$\frac{1}{2}$
$\frac{3}{4}$
1
$1-\frac{1}{8}$
$1-\frac{1}{2}$

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3.4.3 Length.—

3.4.3.1 *Type I.*—Cloth shall be furnished in 25 or 50 linear yard rolls, as specified (see 6.2). Splices, when necessary, are acceptable but in no case shall there be more than one splice in each 50 yards of cloth. Splices may be made by sewing or pasting. They shall be made in such manner that the cloth will not become creased or wrinkled when stretched.

3.4.3.2 *Type II.*—Unless otherwise specified in the contract or order tape shall be furnished in 36 yard or 72 yard (linear) rolls as specified (see 6.2). Splicing of tape, when necessary, is acceptable, but in no case shall there be more than one splice in each roll. The

number of splices in the base fabric shall be kept at a minimum, and such splices shall be made by properly pasting the fabric before the application of the varnish films. Cemented splices will be permitted after varnishing. The splices shall be made in such a manner that the tape will remain flat and smooth when stretched, and the strength of the tape at the splice shall be equal to that elsewhere. When tape is specified for machine taping the overall diameter of the roll and the width and mandrel diameter of the cylindrical core shall be as specified (see 6.2).

3.4.4 *Performance requirements.* — The varnished cloths and tapes shall conform to table III.

TABLE III—Performance requirements.

Type	Class	Nominal thickness	Breaking strength		Dielectric strength		Tear strength across warp
			Condition ¹ C-96/23/50		Condition ¹ C-96/23/0	Condition ¹ C-96/23/96	Condition ¹ C-96/23/50
		Inch	Warp or length-wise Pounds per inch width (min. avg.)	Filler Pounds per inch width (min. avg.)	Volts/mil (min. avg.)	Volts/mil (min. avg.)	Grams (min. avg.)
I—Cloth	1—Bias cut	0.007	38	-----	1,000	250	-----
		.010	38	-----	1,100	450	-----
		.012	38	-----	1,000	500	-----
I—Cloth	2—Straight cut	0.007	43	25	1,100	450	250
		.010	43	25	1,100	600	250
		.012	43	25	1,100	600	250
II—Tape	1—Bias cut	0.007	38	-----	1,000	250	-----
		.010	38	-----	1,100	450	-----
		.012	38	-----	1,000	500	-----
II—Tape	2—Straight cut	0.007	43	-----	1,100	450	-----
		.010	43	-----	1,100	600	-----
		.012	43	-----	1,100	600	-----

¹ See 4.4.1.

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3.5 **Workmanship.**— The workmanship shall be first class in every respect.

4. QUALITY ASSURANCE PROVISIONS**4.1 Sampling.**—

4.1.1 **Lot.**—For purposes of sampling, a lot shall consist of all insulation of the same type, class and size offered for delivery at one time.

4.1.2 **Sampling for visual and dimensional inspection at the place of manufacture.**—A random sample of rolls of cloth or tape shall be selected from each lot of material offered for Government inspection of visual and dimensional inspection in accordance with Standard MIL-STD-105 at inspection level I and acceptable quality level = 2.5 percent defective for the inspection specified in 4.2.

4.1.3 **Sampling for lot acceptance tests (at the place of manufacture).**—A random sample of rolls of cloth or tape shall be selected in accordance with table IV for the tests specified in 4.3.

TABLE IV—*Sampling for lot acceptance tests.*

Number of rolls in lot	Number of rolls in sample
500 and under	2
501 to 1300	3
1301 and over	4

4.2 **Visual and dimensional inspection.**—The sample rolls selected in accordance with 4.1.2 shall be visually and dimensionally inspected by the Government inspector in accordance with 4.4.2, 4.4.3.1, 4.4.3.2 and 4.4.3.3 to verify compliance with the requirements of this specification. Any roll in the sample containing one or more visual or dimensional defects shall be rejected and if the number of defective rolls in any sample exceeds the acceptance number for that sample the lot represented by the sample shall be rejected.

4.3 **Lot acceptance tests (at place of manufacture).**—The samples selected in accordance with 4.1.3 shall be subjected to the

conditioning and tests specified in 4.4.1 and 4.4.3.4 to 4.4.8, inclusive.

4.4 Test procedures.—**4.4.1 Conditioning of test specimens.**—

4.4.1.1 **Nomenclature.**—The following letters shall be used to indicate the respective general conditioning procedures:

Condition C—Humidity conditioning.

Condition E—Temperature conditioning.

4.4.1.2 **Designation.**— The designations (indicating conditioning of test specimens) shall be as follows:

First: A capital letter indicating the general condition of the specimen, that is, humidity and temperature conditioning.

Second: A number indicating in hours the duration of the conditioning.

Third: A number indicating in degrees centigrade the conditioning temperature.

Fourth: A number indicating relative humidity, whenever relative humidity is controlled. Relative humidity obtained over CaCl_2 shall be taken as zero.

The numbers shall be separated from each other by slant marks and from the capital letter by a dash. A sequence of conditions shall be denoted by use of a plus (+) sign between successive conditions. Example:

Condition C-96/23/0—The specimen shall be conditioned for a period of not less than 96 hours at a temperature of 23°C. (73.5°F.) over calcium chloride. The samples shall be tested immediately after removal from the conditioning chamber.

Condition C-96/23/50—The specimens shall be conditioned for a period of not less than 96 hours at a temperature of 23°C. (73.5°F.) and a relative humidity of 50 percent.

Condition C-96/23/6—The specimens shall be conditioned for a period of 96

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hours at a temperature of 23°C. (73.5°F.) and a relative humidity of 96 percent. The samples shall be tested immediately after removal from the conditioning chamber.

Condition E-150/125—The specimens shall be hung free in an oven of the forced draft type for a period of 150 hours at a temperature of $125^{\circ} \pm 1^{\circ}\text{C}$. ($255^{\circ} - 259^{\circ}\text{F}$). They shall then be removed from the conditioning chamber and allowed to cool to room conditions of 23°C. and a relative humidity of 50 percent prior to tests.

4.4.2 *General inspection.*—The material shall be given a thorough examination to ascertain that it conforms to 3.1, 3.2 and 3.3.

4.4.3 *Dimensional inspection.*—

4.4.3.1 *Thickness.*—The thickness shall be determined by the use of a dial type micrometer in accordance with method 5030 of Specification CCC-T-191 with the following exceptions: A 1-inch machinist's micrometer equipped with ratchet device may be used if results are equivalent. When a dial type micrometer is used, the lower or fixed anvil shall consist of a flat steel plate 2 inches in diameter; the upper or movable member shall consist of a foot having a flat steel face $\frac{1}{4}$ inch in diameter and arranged so as to move with its face at all times parallel to the face of the anvil. The movable member shall be of such weight and attached to the operating rod of the micrometer in such a manner that 3 ounces deadweight shall be applied to all thicknesses of samples being measured. The thickness shall be determined as the average of at least 10 readings taken at intervals of approximately 1 foot along the length of the material. If the thickness, so determined, falls outside the specified tolerances, 10 additional readings shall be taken from another section of the material and averaged with the previous readings. The maximum, minimum, and average values shall be recorded.

4.4.3.2 *Width.*—The width shall be determined in accordance with method 5020 of Specification CCC-T-191 by the use of a

standard steel scale graduated to read to 1/64 inch. In case of tape, at least 10 measurements shall be made of width and the maximum, minimum, and average values recorded. The average value shall be taken as the tape width.

4.4.3.3 *Length.*—The length of the cloth and tape shall be suitably determined in accordance with method 5010 of Specification CCC-T-191 by unwinding and measuring one of the sample rolls selected in accordance with 4.1.2, and then it shall be weighed. The remainder of the sample shall then be weighed and the weight compared with first roll.

4.4.3.4 *Thread count.*—The number of warp and filler threads shall be determined in accordance with method 5050 of Specification CCC-T-191.

NOTE 1: The "warp" threads in cloth are the threads which are parallel with the length dimension, while in seamless "bias-cut" material the "warp" threads are parallel with the joined selvages.

NOTE 2: Before counting the threads it may be necessary to remove the varnish film with a knife blade or other suitable instrument. Liquid varnish removers are unsuitable for this purpose as they cause a swelling of the fibers and a shrinking of cloth with a consequent increase in number of threads per inch; therefore, the film shall be removed mechanically.

4.4.4 *Flexibility.*—Several samples shall be selected and doubled back upon themselves (zero radius) at room temperature to determine by means of the unaided eye whether such severe bending will cause the varnish films to crack.

4.4.5 *Breaking strength.*—

4.4.5.1 The breaking strength shall be determined on a pendulum type testing machine. The machine shall preferably be power driven and have a capacity not to exceed 250 pounds. It shall be graduated to read $\frac{1}{2}$ pound or less per scale division.

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4.4.5.2 Specimens cut from the full width cloth or from tapes over 1 inch in width shall be 1 inch in width and not less than 12 inches in length. For tape having a nominal width of 1 inch or less, the specimens shall be of the original width and not less than 12 inches in length.

4.4.5.3 In the case of straight-cut cloths, five specimens shall be cut in the direction of the warp threads and five in the direction of the filler threads. In the case of bias-cut cloths and tapes, five specimens shall be cut in the direction of the length. The clearance distance between jaws shall be 6 inches.

4.4.5.4 The specimens shall be conditioned for 96 hours at a temperature of 23°C. (73.5°F.) \pm 1.1°C. (2°F.) and 50 percent \pm 2 percent relative humidity before testing.

4.4.5.5 The rate of travel of the movable jaw shall be constant. The rate of travel shall preferably be 12 inches per minute but may be within the limits of 11 inches and 13 inches per minute provided it is constant.

4.4.5.6 The average of the tests in any direction shall be taken as the breaking strength in that direction.

4.4.6 *Heat endurance (life)*.—Ten specimens of the cloth or tape shall be heated in an air oven, at a temperature of 124° to 126°C. (255° to 259°F.), for the period of 150 hours. The specimens shall hang vertically without touching each other or the sides of the oven. The air in the oven shall be circulated so as to change at least once an hour. The specimens, after heating, shall be removed from the oven, cooled at 23°C. at 50 percent relative humidity for not less than 1 hour and then bent through 180 degrees over a $\frac{1}{8}$ inch diameter mandrel. Five specimens shall be bent in the length direction and five in the width direction, preferably at a constant rate which may be accomplished by the use of a suitable mechanical device.

4.4.7 *Dielectric strength*.—

4.4.7.1 *Test equipment*.—The test equipment shall consist of a high voltage transformer rated at not less than 2 kilovolt-amperes and the necessary auxiliary equipment for applying, controlling, and measuring the test voltage. The power supply shall consist of an alternating-current source having as nearly a true sine wave as possible at a frequency not exceeding 100 cycles per second.

4.4.7.2 *Voltage control*.—The high-tension voltage taken from the secondary of the testing transformer shall be capable of being raised gradually from any point and in no case more than 500 volts at a step. The control may be made by generator field regulation with an induction regulator, or with a variable ratio autotransformer. Any method of controlling the voltage is satisfactory which does not distort the wave more than 10 percent from a sinusoidal shape.

4.4.7.3 *Voltage measurement*.—The voltage may be measured by any approved method which gives root-mean-square values, preferably by means of a voltmeter connected to a tertiary coil in the testing transformer, or to a separate step-down instrument potential transformer. A voltmeter on the low tension side of the transformer is satisfactory if the ratio of the transformation does not change under any test condition. An electrostatic voltmeter properly calibrated in the high-tension of circuit is also satisfactory. A spark gap may be used to check the readings at very high potentials.

4.4.7.4 One-fourth inch diameter electrodes with edges rounded to $\frac{1}{32}$ inch radius shall be used. To prevent flashover, rubber or silicone rubber gaskets shall be employed around the electrodes. The testing device¹ shall be arranged so that the pressure between the electrodes shall be approximately 6 ounces.

4.4.7.5 The total area of the specimens of each sample of material subjected to con-

¹ Such a device is described in the appendix of A.S.T.M. Tentative Methods of Test for Varnished Cloths and Tapes (D295).

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ditions C-96/23/96 and C-95/23/96 shall be sufficient to permit making 10 tests after each condition. The specimens shall be representative of the material to be tested. The tests shall be made with the specimens in air at the conditioning temperature.

4.4.7.6 Starting at zero, the voltage shall be increased uniformly to breakdown at a rate of 500 volts per second. Ten tests shall be made for each condition and the average of these 10 readings in volts shall be recorded. By division by the average thickness determined as specified in 4.4.3.1, the average dielectric strength shall be calculated and reported in volts per mil.

4.4.8 *Tearing strength (type 1, class 2 only).*—

4.4.8.1 The tearing strength shall be determined using method 5132 of Specification CCC-T-191.

4.4.8.2 Specimens shall be conditioned for 96 hours at $28.0 \pm 1.1^\circ\text{C}$. and 50 ± 2 percent relative humidity. Ten specimens shall be tested by tearing across the warp threads, and the average of the values obtained shall be reported as the tearing strength of the cloth.

4.4.9 *Reports of lot acceptance inspection and tests.*—In addition to the copies required by the Government inspector, two copies of each lot acceptance inspection and test report shall be forwarded to the bureau or agency concerned for information purposes unless otherwise specified in the contract or order.

5. PREPARATION FOR DELIVERY

5.1 Packaging.—

5.1.1 *For domestic shipment, immediate use.*—The cloth rolls and tape shall be packaged in accordance with commercial practice.

5.1.2 *For domestic shipment and storage or overseas shipment.*—

5.1.2.1 *Cloth rolls.*—Cloth rolls shall be individually wrapped in 30-pound basis weight kraft paper conforming to Specification UU-P-268 and securely taped with 2- $\frac{1}{2}$ inch

width gummed kraft tape conforming to Specification UU-T-111. Each wrapped roll shall be completely circled with the tape at a minimum of four places approximately equidistant along its length, with the tape overlapping itself at least 2 inches.

5.1.2.1.1 As an alternate, the cloth rolls shall be individually wrapped with waterproof-paper barrier-material conforming to type C-1 or C-2 of Specification JAN-P-125 with all folds, seams, and laps sealed with water-resistant adhesive conforming to grade B of Specification MIL-A-140 with the type and class as applicable.

5.1.2.2 *Tape.*—The rolls of tape shall be individually wrapped in kraft paper, foil or other protective wraps or individually packaged in commercial folding cartons or set-up boxes. Twenty unit packages of tape shall be packaged in a folding carton, set-up box, or fiberboard box conforming to Specifications PPP-B-566, PPP-B-676, LLL-B-631 or LLL-B-636, respectively. The gross weight of the folding cartons or set-up boxes shall not exceed 5 pounds. Alternatively, twenty of the individually packaged rolls of tape may be overwrapped in 30-pound basis weight kraft paper and secured with kraft tape. Kraft paper and kraft tape shall conform to Specifications UU-P-268 and UU-T-111, respectively.

5.2 Packing.—

5.2.1 *For domestic shipment, immediate use.*—The cloth rolls and tape shall be packed to insure carrier acceptance and safe delivery to destination at the lowest applicable rate. Containers shall comply with the Consolidated Freight Classification Rules or other carrier regulations applicable to the mode of transportation.

5.2.2 *For domestic shipment and storage.*—Unless otherwise specified in the contract or order, tape and cloth rolls, packaged as specified in 5.1.2, shall be packed in wood-cleated fiberboard, nailed wood, wirebound wood, wood-cleated plywood or wood-cleated veneer paper overlaid boxes conforming to Specification NN-B-591, NN-B-621, NN-

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B-631, PPP-B-601 (domestic type) or MIL-B-10377 (domestic type), respectively, or in corrugated or solid fiber boxes conforming to the special requirements of Specification LLL-B-631 or LLL-B-636. Gross weight of wood or wood-cleated shipping containers shall not exceed 200 pounds.

5.2.3 For overseas shipment.— Unless otherwise specified in the contract or order, tape and cloth rolls, packaged as specified in 5.1.2, shall be packed in wood-cleated solid fiberboard, nailed wood, wirebound wood, wood-cleated veneer paper overlaid, wood-cleated plywood or fiberboard boxes conforming to Specification JAN-P-103, JAN-P-106, MIL-B-107, MIL-B-10377 (overseas type), PPP-B-601 (overseas type) or JAN-P-108, (exterior grade), respectively. Shipping containers shall be provided with a sealed waterproof case liner conforming to Specification MIL-L-10547 when cloth rolls are packaged as specified in 5.1.2.1 and tape is packaged as specified in 5.1.2.2. Cloth rolls packaged as specified in 5.1.2.1.1 shall be packed in the same type containers without a case liner. Gross weight of wood and wood-cleated shipping containers shall not exceed 200 pounds.

5.3 Marking.—In addition to any special marking required in the contract order, marking of the packages and shipping containers shall be in accordance with Standard MIL-STD-129.

6. NOTES

6.1 Intended use.—Type I, class 2 and Type II, class 1 insulation, covered by this

specification, are intended for repair and maintenance. Type I, class 1 and Type II, class 2 insulations are intended to be utilized by contractors as a component of their finished products, and should not be ordered as a stock item.

6.2 Ordering data.—Procurement documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Type and class required (see 1.2).
- (c) Thickness of cloth and tape (see 3.4.1).
- (d) Width of tape (see 3.4.2.2).
- (e) Length of cloth and tape (see 3.4.3).
- (f) Overall diameter of the roll and mandrel size of cylindrical core when tape is specified for machine taping (see 3.4.3.2).
- (g) Whether for domestic shipment, immediate use; domestic shipment and storage; or overseas shipment (see 5.1 and 5.2).

Patent notice.—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

Custodians:

Army—Signal Corps
Navy—Bureau of Ships
Air Force

Other interest:

Army—EQQT
Navy—Or.

SPECIFICATION ANALYSIS SHEET		Form Approved Budget Bureau No. 119-R004
INSTRUCTIONS		
This sheet is to be filled out by personnel either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity (as indicated on reverse hereof).		
SPECIFICATION		
ORGANIZATION (of submitter)		CITY AND STATE
CONTRACT NO.	QUANTITY OF ITEMS PROCURED	DOLLAR AMOUNT \$
MATERIAL PROCURED UNDER A		
<input type="checkbox"/> DIRECT GOVERNMENT CONTRACT <input type="checkbox"/> SUBCONTRACT		
1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE? A. GIVE PARAGRAPH NUMBER AND WORDING.		
B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES.		
2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID		
3. IS THE SPECIFICATION RESTRICTIVE? <input type="checkbox"/> YES <input type="checkbox"/> NO IF "YES", IN WHAT WAY?		
4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)		
SUBMITTED BY (Printed or typed name and activity)		DATE

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