INCH-POUND

MIL-PRF-3420G
11 September 1998
SUPERSEDING
MIL-P-3420F
12 November 1987

PERFORMANCE SPECIFICATION

PACKAGING MATERIALS, VOLATILE CORROSION INHIBITOR TREATED, OPAQUE

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

1. SCOPE

1.1 Scope. This specification covers packaging materials (carriers) which have been treated either by coating or impregnating with a corrosion inhibitor.

1.2 Classification. Treated carriers are furnished in the following classes, styles, and forms. Unless a specific style of treated carrier is indicated in the contract or order, style A or B, Class 1 will be furnished (see 6.2).

Classes

1 - Heavy duty
2 - Medium duty
3 - Light duty

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Air Warfare Center Aircraft Division, Code 414100B120-3, Highway 547, Lakehurst, NJ 08733-5100, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC 8135

Styles

A - Kraft, flat: Single ply or laminated
B - Kraft, creped or embossed: Single ply or laminated
C - Greaseproof, waterproof, moldable: Laminated to carriers conforming to QQ-A-1876
G - Greaseproof, waterproof: non-corrosive, and flexible
H - Kraft, flat, cohesive coated: Single ply or laminated
J - Paperboard, wrapping and cushioning, cohesive coated: Carriers conforming to PPP-P-291, style 1, type III, with cohesive coating on one side
K - Paperboard, wrapping and cushioning: Carriers conforming to PPP-P-291, style 1, type III

Forms

a - Carrier coated with corrosion inhibitor
b - Carrier impregnated with corrosion inhibitor

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

FEDERAL

A-A-2904 - Thinner, Paint, Mineral Spirits, Regular and Odorless

DEPARTMENT OF DEFENSE

MIL-PRF-131	-	Barrier Material; Watervaporproof, Greaseproof, Flexible, Heat-Sealable

STANDARDS

FEDERAL

FED-STD-101	-	Test Procedures for Packaging Materials

(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN SOCIETY FOR QUALITY CONTROL (ASQC)

ASQC-Z1.4	-	Procedures, Sampling and Tables for Inspection by Attributes. (DoD adopted)

(Application for copies should be addressed to the American Society for Quality Control, P.O. Box 3005, 611 East Wisconsin Avenue, Milwaukee, WI 53201-4606.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM-D130	-	Copper Corrosion from Petroleum Products by the Copper Strip Tarnish Test Detection of. (DoD adopted)
ASTM-B152	-	Copper Sheet, Strip, Plate, and Rolled Bar. (DoD adopted)
ASTM-D689	-	Paper Internal Tearing Resistance of. (DoD adopted)
ASTM-D5486	-	Standard Specification for Pressure-Sensitive Tape for Packaging, Box Closure, and Sealing. (DoD adopted)

(Application for copies should be addressed to the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Qualification. The treated carriers furnished under this specification shall be products that are authorized by the qualifying activity for listing on the applicable qualified products list before contract award (see 4.2 and 6.3).

3.2 Materials. Treated carriers shall be made from such materials and by such processes as to ensure compliance with the performance requirements of this specification.

3.3 Construction. Material covered by this specification shall consist of a carrier treated with a volatile corrosion inhibitor (VCI) in the form of a coating or an impregnation.

3.3.1 Carrier. The carrier shall have a pH value between 6 and 8.

3.3.2 Moisture content. The moisture content of treated carriers shall prevent water vapor condensation when sealed in a polyethylene bag.

3.4 Form of material. The treated carrier shall be furnished in rolls or flat cut sheets as specified in the contract or delivery order (see 6.2).

3.4.1 Rolls. Unless otherwise specified (see 6.2), rolls shall be 36 inches wide with a tolerance of plus 1/4 inch and minus 1/8 inch. The length of roll material shall be not less than 200 yards (see 4.3.2.3). Material shall be wound evenly on roll and shall be restrained to prevent unwinding of the roll (see 4.3.2.2).

3.4.2 Utility rolls. Unless otherwise specified (see 6.2), utility rolls shall be 18 inches wide with a tolerance of plus 1/4 inch and minus 1/8 inch. The length of roll material shall be 10 yards long with a tolerance of plus 6 inches (see 4.3.2.3).

3.4.3 Sheets. Unless otherwise specified (see 6.2), flat cut sheets shall be 24 inches wide and 36 inches long. The tolerance for the length and width shall be plus 1/4 inch and minus 1/8 inch (see 4.3.2.3). Sheets shall be evenly stacked (see 4.3.2.2).

3.5 Sealing conditions (styles H and J). A sheet containing the manufacturer's recommended sealing conditions (see 4.5) for use with cold seal packaging machinery shall be provided with each roll or bundle of sheets of styles H and J material.

3.6 Identification of material. The notation DO NOT USE WITH FOODSTUFFS, specification number, specification part number, manufacturer's name, manufacturer's designation, month and year of manufacture, and the notation OTHER SIDE TREATED (used when only one side has been treated) shall be clearly and legibly marked using water-resistant ink on the untreated side only. If both sides are treated, printing on either side is permissible. For material on rolls, the lines of print shall be perpendicular to the longer sides of the material as shown on figure 1. When marking is not possible due to surface conditions, tags that show the marking information as described above, except for the notation OTHER SIDE TREATED shall be used. In the case of flat units, a sheet shall be inserted in the package. Tags or sheets shall be visible upon opening the roll or package (see 4.3.2.1). The markings shall be not less that 1/8 of an inch high. The group of markings shall be repeated laterally on 10-inch centers. The distance between the bottom line of one group of markings and the top line of the next group of markings shall be not greater than 2 inches (see 4.3.2.3).

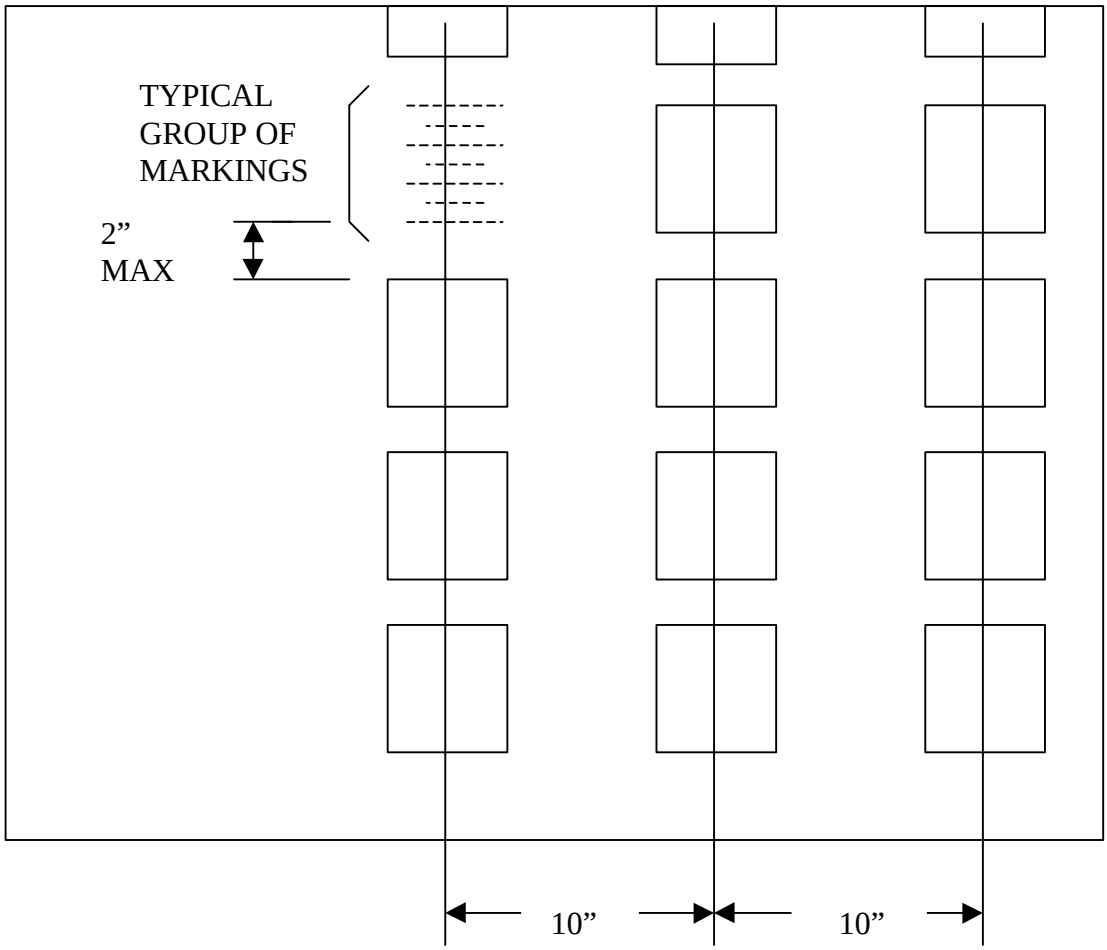

FIGURE 1. Marking of rolled packaging materials.

3.7 Performance requirements. The performance of the treated carrier shall conform to the requirements specified in table I, when tested in accordance with 4.6.

TABLE I. Performance requirements.

Characteristics	Requirements	Test Paragraph Reference
Compatibility with copper	No pitting, etching or discoloration of vapor exposed copper surface. Discount attacks within 1/16 inch of specimen. 1/	4.6.4
Vapor inhibitor ability (VIA)	No corrosion, etching or pitting of polished surface of steel panel. 1/	4.6.1
Vapor inhibitor ability after exhaustion	Comply with requirements of VIA test. 1/	4.6.1
Contact corrosivity	No corrosion, etching or pitting of contact area of panel.	4.6.1
Blocking resistance	No delamination, tearing or flaking when the sheets are separated.	4.6.1
Water resistance of markings	Markings shall be clear and legible.	4.6.1
Strength:	Class 1 / Class 2 / Class 3	
Bursting (psi min) 2/	60 / 40 / 20	4.6.1
Tearing, machine and cross directions (gms min)	110 / 40 / 12	4.6.1
Compatibility with MIL-PRF-131 barrier material	No delamination, swelling, embrittlement, dissolution, effect on the sealability or deterioration of barrier material.	4.6.5
Long term protection	No corrosion of steel panels.	4.6.3
Seam strength:		4.6.2
As received	Separation shall not exceed 50 percent	
Sealed after aging	Separation shall not exceed 50 percent	

1/ Discount crystalline haze or stain removed with methanol saturated gauze.
2/ On crepe material, bursting strength value shall be obtained with specimen stretched. Crepe requirement shall be 50 percent of flat.

3.8 Workmanship. The appearance of finished packaging materials that are coated or impregnated shall not contain any voids in the coating or substrates (see 4.3.2.2). The material shall be clean and free from holes, tears, cuts, sharp creases, wrinkles, or other imperfections. The treated carrier shall be cut and trimmed of any selvage (see 4.3.2.1).

4. VERIFICATION

4.1 Classification of inspections. The inspection requirements specified herein are classified as follows:

a. Qualification inspection (see 4.2).

b. Conformance inspection (see 4.3).

4.2 Qualification inspection. The qualification inspection shall consist of all tests and examinations of this specification.

4.3 Conformance inspection. Conformance inspections consist of the required tests listed in table II and the examinations listed in tables III through V

TABLE II. Conformance tests.

Characteristics	Paragraph Reference
Seam strength (Style H and J)	--
As received	4.6.2.2
Sealed after aging	4.6.2.3
Tearing strength	4.6.1
Vapor Inhibitor Ability	4.6.1
Vapor Inhibitor Ability after Exhaustion	4.6.1
Contact Corrosivity	4.6.1
Bursting Strength	4.6.1

4.3.1 Sampling for conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with the provisions set forth in ASQC-Z1.4.

4.3.2 Examination of the end item. For the purpose of determining the sample size in accordance with ASQC-Z1.4, the lot size shall be expressed in units of rolls or packages of sheets, as applicable, for examinations under 4.3.2.1 through 4.3.2.3.

4.3.2.1 Examination of the end item for defects in appearance, construction, and workmanship. For examination of defects within rolls, the sample unit of product shall be two yards, the full width of the roll. For examination of sheets, the sample unit shall be two sheets randomly selected from a package. No more than five sample units, randomly selected, shall be drawn from any one roll or package of sheets, as applicable. Both sides of the material shall be examined, as specified in table III.

TABLE III. Examination of end item for defects in appearance, construction, and workmanship.

EXAMINATION (Check both sides of treated carrier.)	DEFECT
Form of material	Not rolled or flat cut, as specified.
Appearance	Surfaces not clean; presence of any foreign matter, dirt, sand, grit or oil spots. (NOTE: Defects do not apply to outer convolution of roll.)
Workmanship	Delamination. Embrittlement. Any hole (excluding optical pinholes), tear, cut, chafed spot or scuff mark. (Note: Defects do not apply to outer convolution of roll.) Edges not clean cut; ragged, crushed or uneven.
Construction	Not uniform. Any layer or section missing.
Identification of material (marking)	Markings not made using water resistant ink. Missing, incorrect, or illegible. Not on backing surface where required. Complete marking not repeated as specified in 3.6. For roll material the lines of print not perpendicular to the longer sides of material. Tags or sheets, when applicable, not properly located.

4.3.2.2 Examination of the end item for defects in general construction. The sample unit for this examination shall be one roll or one package of sheets, as applicable.

TABLE IV. Examination of end item for defects in general construction.

EXAMINATION	DEFECT
Roll or package sheets	Loss of coating or impregnation causing bald spots. Coating or impregnation completely missing. Granular sandpaper surface.
Assembly of sheets	Not evenly and uniformly stacked; sheet containing manufacturer's sealing conditions not visible upon opening. Adjacent sheets stick together to the extent that separation causes tearing or injury to any surface.
Assembly of roll	Not restrained to prevent unwinding. Material not wound uniformly on roll causing soft or uneven edges, or telescoping of roll.
Unwinding of roll (check both sides)	When unwound, material sticks together to the extent that unrolling causes tearing or injury to any surface. Material wound unevenly causing wrinkles, sharp creases, or folds within roll.

4.3.2.3 Examination of the end item for dimensional defects. The sample unit for this examination shall be one roll or one package of sheets, as applicable.

TABLE V. Examination of the end item for dimensional defects.

EXAMINATION	DEFECT
Sheets Length and Width	Varies by more than plus 1/4 or minus 1/8 inch from dimensions specified.
Rolls: Width	Varies by more than plus 1/4 inch or minus 1/8 inch from the dimensions specified.
Length	Less than 200 yards.
Utility rolls: Width	Varies by more than plus 1/4 inch or minus 1/8 inch from the dimensions specified.
Length	Less than 10 yards, or greater than 10 1/6 yards.
Identification markings	Lettering is less than 1/8 inch high. More than 2 inches between groups of markings. Less than one group of markings in each 10 inches of width.

4.4 Test conditions and preparation.

4.4.1 Test conditions. Unless otherwise specified in the detailed test methods herein, the physical tests contained in this specification shall be made with an atmosphere having a relative humidity of 50 ± 5 percent and a temperature ranging from 70 to 80 °F. Material shall be considered in equilibrium after exposure to the above conditions for a minimum of 24 hours.

4.4.2 Test preparation.

a. The utensils and cloths used in the preparation of panels and test specimens shall be clean and free of contamination. Solvents shall be clean and renewed frequently. In all stages of treatment the handling of panels with bare hands shall be avoided. Panels shall not be permitted to contact contaminated surfaces during the cleaning procedure.

b. After hand polishing metals panels and test specimens as specified for each procedure, they shall be cleaned with surgical gauze and then scrubbed in a beaker of hot mineral spirits conforming to A-A-2904 with a surgical gauze swab. This shall be followed by successive immersions in hot mineral spirits, boiling 95 percent methanol, and boiling absolute methanol, and then allowed to dry and stored in a desiccator until ready for use. If storage of more than

24 hours occurs, the surface preparation shall be repeated starting with the hand polishing.

c. Apparatus used in the VIA test and exhaustion procedure shall be cleaned in a solution of hot water and soap, followed by a double rinse in hot tap water and a final rinse in distilled water.

d. As a precaution after all tests, the apparatus shall be thoroughly cleaned as described. Care shall be taken to segregate test samples by use of wrapping materials and to avoid contamination. Hands shall be washed after handling treated papers and between periods of handling different materials.

4.5 Sealing instructions for qualification and conformance testing. Cold seals for test purposes shall be not less than 1/2 inch wide and shall be effected on sealer having two sets of rubber coated pullwheels and opposing jaws, using 40 pounds per square inch for the sealing conditions.

4.6 Verification of performance requirements.

4.6.1 Test methods. Unless otherwise specified, the tests in table VI shall be conducted in accordance with the identified methods of FED-STD-101.

TABLE VI. Test methods.

Tests	FED-STD-101 Test Method No.	ASTM Test Method No.
Vapor inhibitor ability	4031 procedure B	---
Vapor inhibitor ability (after exhaustion)	4031 procedure B	---
Puncture resistance	2065	---
Blocking resistance (Styles C, H, and J materials shall be tested in a face-to-back configuration only)	3003 procedure A	---
Contact corrosivity	3005	---
Bursting strength	2007	---
Water resistance of marking	3027	---
Tearing strength	--	D689

4.6.2 Seam strength (style H and J).

4.6.2.1 Seam strength samples. Samples measuring 6 by 12 inches shall be selected from the test material.

4.6.2.2 Seam strength "as received".

4.6.2.2.1 Preparation of test specimen. A six by twelve inch specimen for this test shall be folded in half with the crease parallel to the long axis. The open or unfolded length shall be sealed. The sealed areas shall be indicated by a line drawn on the back of the specimen along the sealer jaw, while the specimen is in the sealer. The folded length shall be cut off 1/2 inch from the end. From this, three adjacent 1-inch-wide specimens shall be cut perpendicular to the seam.

4.6.2.2.2 Test at room temperature. The three 1-inch-wide specimens selected for this test (see 4.6.2.2.1) shall be opened and one end of each specimen shall be clamped so that the other end of the specimen hangs freely. A 1/2 pound weight shall then be carefully attached to the free end of the specimen so as not to impact load the seal. The weight shall be allowed to act for 5 minutes whereupon the weight shall be removed and the specimen examined for separation of the sealed faces. Any evidence of delamination of one ply away from the other in the sealed area shall be cause for rejection. The evaluation shall be limited to the sealed area specified in 4.6.2.2.1.

4.6.2.3 Seam strength (sealed after aging).

4.6.2.3.1 Test specimens. The treated carrier for this test, in the flat unsealed condition as taken from the sample roll, shall be aged in a circulating air oven maintained at 150 ± 2 °F for 12 consecutive days (288 hours). After removal from the oven, the unsealed sections shall be allowed to come to room temperature. Test specimens shall then be obtained as specified in 4.6.2.2.1.

4.6.2.3.2 Test at room temperature. The three 1-inch-wide specimens selected for this test (see 4.6.2.3.1) shall be tested as specified in paragraph 4.6.2.2.2.

4.6.3 Long term protection test.

4.6.3.1 Preparation of panel. Four 2 by 4 by 1/8 inch, cold rolled 1020 steel panels, shall be finished with 240 grit aluminum oxide to a surface roughness of 6-12 microinches and cleaned as specified for the contact corrosivity test (see 4.6.1). Edges of the panel shall be rounded, and two 1/8 inch diameter holes drilled at opposite corners of the 4 inch side.

4.6.3.2 Assembly and exposure. An unused weather-resistance fiberboard box of 1 cubic foot capacity with the length, width and height equal shall be completely lined on the inside of all faces, except the top, with a single layer of treated carrier, which shall be held in place with staples. The carrier shall have a treated side(s) facing toward the center of the box. One of the four panels shall be placed up and centered on a 6 by 6 inch sheet of the treated carrier. The sheet shall be tightly wrapped around the panel and fastened with a double fold at the middle of the panel face; a single fold of the sheet shall be made at the ends of the panel. The wrapped panel

shall be secured in the prepared box with the folds of the sheet against the bottom of the box. The three remaining panels shall be suspended by stainless wire from two opposite top edges of the box. One panel shall be suspended in such a position that its center is at the center of the box cavity; the other two panels shall be suspended at the same level facing the center panel at least one inch from the center panel and the sides of the box. The seams of the box shall be fastened together with 3-inch-wide tape conforming to ASTM-D5486. Three strips of the tape shall be applied to both top and bottom of the box so that all seams are covered their full length. The tape applied over the center lengthwise seams shall extend at least 3 inches onto each of the end panels. The manufacturer's joint shall be taped to establish a completely sealed container. The sealed box shall be exposed outdoors for 12 months in a louvered shed. Upon completion of the exposure period, the panels shall be examined visually for conformance to the requirements in table I.

4.6.4 Compatibility with copper.

4.6.4.1 Preparation of test assembly panel. Three panels of cold rolled, hard temper copper conforming to ASTM-B152 and measuring 1/16 by 1/2 by 3 inches shall be polished to remove pits and irregularities from all surfaces. The panels shall be polished with 240 grit aluminum oxide. The use of “wet or dry” paper is prohibited. Iron oxide abrasives shall not be used. The final abrasion shall be in a direction parallel to the length of the panel. Each panel shall be bent into a “U” shape having a radius of 1/4 inch and a distance of 1/2 inch between side walls at the ends. A sample of treated carrier material measuring 3/4 by 3 1/2 inches shall be tightly wrapped around each “U” shaped panel with the treated or effective side to match, so that the material is perpendicular to the longitudinal axis and at the base of the open section of the “U”. The treated carrier shall be secured with white nylon thread.

4.6.4.2 Procedure. The test shall be conducted in a glass jar of one pint capacity, measuring 2 1/2 inches in diameter and 5 1/2 inches in height. Fifty ml of a solution of synthetic glycerine and distilled water having a specific gravity of 1.103 at 75 ± 3 °F, shall be poured into the test jar to provide a relative humidity of 85 ± 3 percent at 150 ± 2 °F. A glass vessel for use as a stage shall be inverted and placed inside the test jar. The three wrapped panels shall be placed around the perimeter of the stage with both legs of the inverted “U” resting on the stage in the test jar avoiding contact with glycerine solution. The test jar shall be sealed with a screw cap using an aluminum foil gasket and placed in a circulating air oven maintained at 150 ± 2 °F for 7 days. The test jar shall then be removed from the oven, allowed to cool, and the copper panels removed and unwrapped. The “U” shaped specimen shall be examined on the inside surface of the “U” for evidence of corrosive effects from the vapor in accordance with ASTM-D130.

4.6.5 Compatibility with MIL-PRF-131. For VCI-treated sheet materials. The test shall be performed as follows in triplicate for each combination of materials along with a control incorporating neutral kraft paper in lieu of VCI-treated material.

4.6.5.1 Assembly of specimens. The specimen of barrier material shall be formed into a pouch by folding the specimen in half and leaving a 36-pound flat surfaced weight on the crease for 30 seconds (6 pounds per inch of crease). The short edges shall be sealed to form a side-opening pouch 5 inches long. A clean dry steel panel 1/8 by 2 by 4 inches shall be wrapped in a specimen of VCI-treated material with the treated surface toward the panel. The wrapping shall be closed with a double fold along the lengthwise centerline of the panel, and single folds at the ends of the panel. This shall then be inserted into the pouch, the excess air shall be pressed out by hand, and the pouch shall be closed with an airtight seal.

4.5.6.2 Procedure. Unless otherwise specified, the assembly shall be retained in an oven maintained at 150 ± 2 °F for 7 days. When the pouch has cooled to room temperature, the sealed edge shall be cut away and the wrapped panel shall be removed. The barrier material shall be examined for deterioration and if none is obvious, the material shall be tested by bending it with the heat-seal face out around a 1/4-inch-diameter mandrel as prescribed in FED-STD-101, Method 2003.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature which may be helpful, but is not mandatory.)

6.1 Intended use. The treated carriers covered by this specification are intended for use in specialized military methods of preservation. The combination of all performance characteristics of MIL-PRF-3420; vapor inhibitor ability; vapor inhibitor ability after exhaustion; long term protection; contact corrosivity; blocking resistance; seam strength; water resistance of markings provide the necessary requirements for protection from exposure to the extremes of the navy/naval aviation environment. Navy/naval aviation items are exposed to high moisture, high salt concentration, transfer at sea, rough handling, and minimal storage conditions. There are no commercial equivalents that meet the physical, mechanical, and corrosion requirements necessary to protect materiel that are exposed to the operational naval aviation environment. MIL-STD-2073-1C uses MIL-PRF-3420 as the premier source of packaging materials coated or impregnated with a volatile corrosion inhibitor that provides

protection for applicable items encountering the above conditions. MIL-PRF-3420 provides the building blocks for applying specialized military preservation techniques approved under MIL-STD-2073-1C.

6.1.1 Required compatibility testing. Materials may not be used to package assemblies containing plastic, painted, or rubber components, unless the specific inhibitor has passed the compatibility test specified in FED-STD-101, Method 3004, procedure B. Additionally, VCI materials should not be used in applications where they might come in contact with high explosives or propellants associated with ammunition. Procedures covering the use of VCI materials are specified in MIL-I-8574.

6.1.2 Sealing styles H and J. Styles H and J materials may be sealed either manually or by cold seal packaging machinery.

6.2 Acquisition requirements. Acquisition documents must specify the following:

a. Title, number, and date of the specification.

b. Issue of DoDISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.1).

c. Class, style and form of treated carrier (see 3.4).

d. Form (rolls or flat cut) and size required (see 3.4).

e. Utility rolls (specify quantity).

6.3 Qualification. With respect to products requiring qualification, awards will be made only for products which are, at the time of award of contract, qualified for inclusion in Qualified Products List QPL-3420, whether or not such products have actually been so listed by that date. The attention of the contractors is called to these requirements, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification in order that they may be eligible to be awarded contracts or purchase orders for the products covered by this specification. Information pertaining to qualification of products may be obtained from the Commander, Naval Air Warfare Center Aircraft Division, Code 4.3.4.1, 48066 Shaw Road, Unit 5 Bldg. 2188, Patuxent River, MD 20670-1908.

Treated carrier material supplied under contract should be identical in every respect to the samples tested and found to meet the requirements of this specification. Any unapproved changes from the qualification sample should constitute cause for rejection for material submitted and for removal from the list of qualified products. However, acceptability under this specification is based on the performance characteristics of the treated carrier material, and since there is no color

requirement, it is not mandatory that the color of the visible surfaces of the material supplied under contract be the same as the samples tested and accepted by the qualifying activity.

6.3.1 Submission of qualification samples and additional information. Prior to submitting samples for qualification testing, vendors will request authorization from the qualifying activity. Upon receipt of authorization, samples will be forwarded as directed. The qualifying activity will require the manufacturer to submit for review and approval, two copies of the manufacturer's test report, including the sample's material safety data sheet (MSDS) (see 6.5), the location and identity of the plant which produced the sample, and the item composition report. The samples should be plainly and durably with the following information:

Sample for Qualification Inspection

PACKAGING MATERIALS, VOLATILE CORROSION INHIBITOR TREATED, OPAQUE
Manufacturer's Name
Manufacturer's Code No.
Class
Style
Form
Date of manufacture (month and year)
Submitted by (name) (date) for qualification inspection in accordance with requirements of MIL-PRF-3420G under authorization (reference authorizing letter)

6.3.2 Submitted samples. The qualification inspection sample should be considered representative of the manufacturer's entire line of treated carriers; however, where the following modifications have been made, additional qualification samples as specified in 6.3.1 should be submitted.

a. Change in quantity or type of corrosion inhibitor.

b. Change in method of treatment, such as impregnation to coating or vice versa.

c. Change in binder.

d. Change to a different basic carrier other than kraft paper, such as direct application to foil, plastic, or other carrier material.

6.4 Conformance inspection lot. For purposes of sampling, an inspection lot for examinations and tests should consist of all material of the same class made by the same process from the same components by one manufacturer and submitted for delivery at one time.

6.5 Material Safety Data Sheets (MSDSs). Contracting officers will identify those activities requiring copies of completed Material Safety Data Sheets prepared in accordance with FED-STD-313. The pertinent Government mailing addresses for submission of data are listed in FED-STD-313; and 29 CFR 1910.1200 requires that the Material Safety Data Sheet for each hazardous chemical used in an operation must be readily available to personnel using the material. Contracting officers will identify the activities requiring copies of the Material Safety Data Sheet.

6.6 Subject term (key word) listing.

Greaseproof
Preservation
Treated carriers
Volatile corrosion-vapor inhibitor

6.7 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

CONCLUDING MATERIAL

Custodians:
Army - SM
Navy - AS
Air Force - 69

Review activities:
Army - AT, AV, EA, GL
Navy - MC, OS, SA, SH, YD1
DLA - DH

Preparing activity:
Navy - AS
(Project 8135-0721)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.

2. The submitter of this form must complete blocks 4, 5, 6, and 7.

3. The preparing activity must provide a reply within 30 days from receipt of the form.
NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of 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.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER MIL-PRF-3420G	2. DOCUMENT DATE (*YYMMDD*) 980911

3. DOCUMENT TITLE
PACKAGING MATERIALS, VOLATILE CORROSION INHIBITOR TREATED, OPAQUE

4. NATURE OF CHANGE (*Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.*)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (*Last, First, Middle Initial*)	b. ORGANIZATION	
c. ADDRESS (*Include Zip Code*)	d. TELEPHONE (*Include Area Code*) (1) Commercial: (2) DSN: (*If Applicable*)	7. DATE SUBMITTED (*YYMMDD*)

8. PREPARING ACTIVITY

a. NAME COMMANDER NAVAL AIR WARFARE CENTER AIRCRAFT DIVISION	b. TELEPHONE NUMBER (*Include Area Code*) (1) Commercial (732) 323-2947 (2) DSN 624-2947
c. ADDRESS (*Include Zip Code*) CODE 414100B120-3 HIGHWAY 547 LAKEHURST, NJ 08733-5100	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Logistics Agency (DLSC-LM), Attn: Carla Jenkins/John Tascher 8725 John J. Kingman Road, Ste 2533 Fort Belvoir, VA 22060-6221 Telephone (703) 767-6874