MIL-A-3316B
AMENDMENT 7
21 September 1983
SUPERSEDING
AMENDMENT 6
22 October 1979

MILITARY SPECIFICATION

ADHESIVES, FIRE-RESISTANT, THERMAL INSULATION

This amendment forms a part of Military Specification MIL-A-3316B, dated 29 April 1966, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 1

1.2, line 2: After "classes" insert "and grades".

Under "Class 1", add:

"Grade A - Pigmented white.
"Grade B - Pigmented red (sealer coating to identify asbestos-free system)."

Under "Class 1", Delete: "For bonding cotton brattice cloth to faced and unfaced fibrous glass insulation board."

Under "Class 2 and Class 3", add:

"Grade A - Pigmented white."

PAGE 2

* 2.1, under "SPECIFICATIONS, MILITARY": Delete "MIL-C-768".

Title of MIL-I-22023: Delete "Inspection Felt" and substitute "Insulation Felt".

Under "STANDARDS, FEDERAL": add:

"FED-STD-313 - Material Safety Data Sheets, Preparation and the Submission of.
"FED-STD-595 - Colors".

Under "STANDARDS, MILITARY": add:

"MIL-STD-1188 - Commercial Packaging of Supplies and Equipment."

FSC 8040

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2.2: Delete:

"AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS
Threshold Limit Values (For Atmospheric Contaminants)

(Application for copies should be addressed to the American Conference of Governmental Industrial Hygienists, 1014 Broadway, Cincinnati 2, OH.)"

2.2 Delete "OFFICIAL CLASSIFICATION COMMITTEE" and substitute the following:

"UNIFORM CLASSIFICATION COMMITTEE, AGENT
Uniform Freight Classification Ratings, Rules and Regulations

(Application for copies should be addressed to the Uniform Classification Committee Agent, Tariff Publication Officer, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

"NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC., AGENT
National Motor Freight Classification

(Application for copies should be addressed to the National Motor Freight Traffic Association, Inc., ATA TRAFFIC DEPT., 1616 "P" Street, NW, Washington, DC 20036.)

"DEPARTMENT OF TRANSPORTATION
Code of Federal Regulations, Title 49.

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

* 2.2, under "AMERICAN SOCIETY FOR TESTING AND MATERIALS": Add:

"ASTM D 562 - Consistency of Paints Using the Stormer Viscomer, Test for. (DoD adopted)

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

PAGE 3

3.2: Delete and substitute:

"3.2 Material. The adhesives shall be effective for the purpose intended without heating or the addition of other ingredients. They shall be free of all ingredients which may adversely affect the serviceability, have a deleterious effect on thermal insulation and fibrous glass cloth, or cause corrosion of bare steel in the adhesion tests or primed steel in service. Adhesives shall not contain mercury or mercury compounds and shall be asbestos free. A certificate of compliance shall be submitted, when required (see 6.1)."

3.4, second sentence: Delete.

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3.6.1 and 3.6.2: Delete and substitute:

"3.6.1 Class 1 adhesive. The consistency of the adhesive at 80°F, after it has been stirred moderately by hand, shall be suitable for brush application to the surface of faced and unfaced fibrous glass insulation board conforming to MIL-I-742 and to the surface of fibrous glass cloth conforming to type I, class 2 of MIL-C-20079 (see 4.4.5.1).

"3.6.2 Class 2 adhesive. The consistency of the adhesive shall be not less than 90 nor more than 130 Krebs units, when tested as specified in 4.4.5.1.1."

Add as 3.6.3:

"3.6.3 Class 3 adhesive. The consistency of the adhesive shall be such as to allow a cone penetration average of not less than 25 nor more than 35 mm, when tested as specified in 4.4.5.2."

3.8.1, lines 4 and 5: Delete "cotton brattice cloth" and substitute "fibrous glass cloth".

PAGE 4

3.9: Delete and substitute:

"3.9 Color.

"3.9.1 Class 1, grade A adhesive. The adhesive, when examined as specified in 4.4.8, shall be white in color."

"3.9.2 Class 1, grade B adhesive. The adhesive, when examined as specified in 4.4.8, shall match red no. 31158 of FED-STD-595."

Add as paragraph 3.17:

"3.17 Material safety data sheet. The contracting activity shall be provided a material safety data sheet (MSDS) at the time of contract award. The MSDS is Form OSHA 20 and is found in FED-STD-313. The MSDS shall be included with each shipment of the material covered by this specification."

PAGE 5

4.2, line 3: Delete "Bureau of Ships" and substitute "Naval Sea Systems Command".

PAGE 6

Table I, line 3: Under "Inspection procedure (paragraph), Adhesive class 2": delete "4.4.5.1" and substitute "4.4.5.1.1".

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PAGE 8

4.4.5.1: Delete and substitute:

"4.4.5.1 Class 1 adhesive. The adhesive, after it has been stirred moderately by hand, shall be applied with a brush to faced and unfaced fibrous glass insulation board conforming to MIL-I-742 and to the surface of fibrous glass cloth conforming to type I, class 2 of MIL-C-20079.

* "4.4.5.1.1 Class 2 adhesive. The consistency of the adhesive shall be determined in accordance with ASTM D 562.

4.4.6, lines 7 and 8: Delete "cotton brattice cloth conforming to MIL-C-768" and substitute "fibrous glass cloth conforming to type I, class 2 of MIL-C-20079".

PAGES 8 and 9

4.4.7.1, lines 22 and 23: Delete "cotton brattice cloth conforming to MIL-C-768" and substitute "fibrous glass cloth conforming to type I, class 2 of MIL-C-20079".

lines 27, 28, 29, 32 and 33: Delete "cotton brattice cloth" and substitute "fibrous glass cloth".

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* 4.4.7.2.1, lines 15 and 16: Delete "cotton brattice cloth conforming to MIL-C-768" and substitute "fibrous glass cloth conforming to type I, class 2 of MIL-C-20079". Line 25: Add: "Visually inspect the adhesive for dryness. If adhesive is not dry, allow an additional 12 hours drying time."

line 29: Delete "cotton brattice cloth" and substitute "fibrous glass cloth".

PAGE 11

* 4.4.12.1, first sentence: Delete and substitute: "Three strips of fibrous glass tape, 6 inches long and 2 inches wide, conforming to type II class 1 of MIL-C-20079 shall be coated on both sides with the adhesive, then drawn through two polished metal bars (1/2 to 1 inch diameter). The bars shall be parallel so that the tape with coating on both sides when dried shall have an overall thickness of 0.013 inch."

After fourth sentence, add: "The temperature of the flame shall be measured using a type R or S thermocouple at a point 1-1/4 ± 1/32 inch above the center of the grid and shall be between 1300 - 1900°F. The flame shall be adjusted to provide a temperature within this range. Flame adjustment shall be performed in a darkened area and shall utilize a black object behind the flame in order to enhance observation of the flame height."

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PAGES 11 and 12

4.4.12.2.1, line 9 and 10: Delete "cotton brattice cloth conforming to MIL-C-768" and substitute "fibrous glass cloth conforming to type I, class 2 of MIL-C-20079."

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* Under "5. PREPARATION FOR DELIVERY" add:

"(The packaging requirements specified herein apply only for direct Government acquisitions and shipments of material or equipment from Government activities.)"

5.1.2, last sentence: Delete and substitute: "Packaging may conform to the contractor's normal retail procedure when such meets the requirements of this level."

5.2.3: Delete and substitute:

"5.2.3 Level C. Adhesives packaged as specified (see 6.1), shall be packed in containers acceptable to the common carrier which shall insure safe delivery at the destination in a satisfactory condition at the lowest applicable rate. Containers or method of shipment shall comply with Uniform Freight or National Motor Freight Classification rules or regulations or other carrier rules and regulations as applicable to the mode of transportation."

Add as paragraph 5.2.4:

* "5.2.4 Commercial. Commercial packing shall be in accordance with MIL-STD-1188."

5.3, first sentence: Delete and substitute: "In addition to any marking required by the contract or order, interior and exterior containers and palletized or containerized loads shall be marked in accordance with MIL-STD-129 and the requirements of the Department of Transportation when applicable."

Add as paragraph 5.3.1:

* "5.3.1 Special marking. All classes and grades containers shall include the following marking:

DOES NOT CONTAIN MERCURY OR MERCURY COMPOUNDS
ASBESTOS FREE
DO NOT ADD WATER OR ANY THINNING AGENTS".

In addition, class 1, grade B containers shall also include the following:

'FOR USE WITH ASBESTOS FREE THERMAL INSULATION ONLY'."

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6.1, item (b): Delete and substitute:

"(b) Class and grade of adhesive required (see 1.2)."

add as items (e) and (f):

"(e) When palletized or containerized loads are required (see 5.2.4).
"(f) When a certificate of compliance is required (see 3.2), submit to contracting activity."

6.3 and 6.4: Delete and substitute:

"6.3 With respect to products requiring qualification, awards will be made only for products which are at the time set for opening of bids, qualified for inclusion in applicable Qualified Products List QPL-3316 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 orders for the products covered by this specification. The activity responsible for the Qualified Products List is the Naval Sea Systems Command, SEA 55Z3, Department of the Navy, Washington, DC 20362, and information pertaining to qualification or products may be obtained from that activity. Application for qualification tests shall be made in accordance with "Provisions Governing Qualification SD-6" (see 6.4).

"6.4 Copies of "Provisions Governing Qualification SD-6" may be obtained upon application to Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120."

LAST PAGE

DD 1426, Specification Document Improvement Proposal: Delete address and substitute:

"COMMANDER
NAVAL SEA SYSTEMS COMMAND (SEA 55Z3)
DEPARTMENT OF THE NAVY
WASHINGTON, DC 20362"

NOTE: The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment 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 amendment.

Custodians:
Army - MR
Navy - SH

User activities:
Navy - AS, OS, YD, CG

Preparing activity:
Navy - SH
(Project 8040-0416)

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