

MIL-D-11568C

9 May 1966

SUPERSEDING

MIL-D-11568B

27 May 1959

## MILITARY SPECIFICATION

## DAM COMPOUND, BARBITT POURING

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

## 1. SCOPE

1.1 This specification covers one type of dam compound used as a mold when babbitt bearings are poured.

## 2. APPLICABLE DOCUMENTS

2.1 The following documents of the issue in effect on date of invitation for bids or request for proposal form a part of this specification to the extent specified herein:

## STANDARDS

Military

- |             |  |
|-------------|--|
| MIL-STD-105 | - Sampling Procedures and Tables for Inspection by Attributes. |
| MIL-STD-129 | - Marking for Shipment and Storage.                            |

(Copies of standards required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

## OFFICIAL CLASSIFICATION COMMITTEE

## Uniform Freight Classification Rules

(Application for copies should be addressed to the Official Classification Committee, 1 Park Avenue at 33rd Street, New York, N. Y. 10016.)

FSC 9350

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## AMERICAN TRUCKING ASSOCIATION

### National Motor Freight Classification Rules

(Application for copies should be addressed to the American Trucking Association, 1616 P Street NW, Washington, D.C. 20036.)

#### 3. REQUIREMENTS

3.1 Description. The dam compound shall be composed essentially of asbestos and a pliable binder which will not lose volatile components or deteriorate in use.

3.2 Material. Material shall be as specified herein.

3.3 Storage temperature. The compound shall not be damaged by storage under the following conditions:

Compound temperature:

High - 155° F.; time period, 4 hours daily for 3 days.

Low - minus 65° F.; time period, 4 hours daily during same 3 days.

3.4 Safety. The compound shall be explosionproof, shall be safe for workmen to handle, and shall not spatter or react violently when brought into contact with molten-bearing metal. The compound shall be of such texture that moisture from the atmosphere will not contribute to spattering or steaming while bearings are being poured.

3.5 Performance. The compound shall be capable of retarding the flow of and providing a dam for all commercial grades of bearing babbitt and of being worked and formed in any ambient temperature from plus 40° F. to plus 125° F. The compound shall leave a smooth surface on metal when cooled and shall not cause other irregularities on bearing flanges or affect the surface quality of the babbitt. The compound shall be suitable for reuse.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to 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.

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4.2 Classification of inspection. Inspection shall be classified as follows:

- (a) Quality conformance inspection (see 4.3).
- (b) Inspection of preparation for delivery (see 4.4).

4.3 Quality conformance inspection.

4.3.1 Sampling.

4.3.1.1 For tests. Sampling shall be in accordance with MIL-STD-105.

4.3.2 Tests. Samples selected in accordance with 4.3.1.1 and in original containers shall be conditioned by storage as specified in 3.3 and then subjected to the following tests. Lot acceptance or rejection shall be based on an AQL of 10 percent defective. Samples failing to pass any test shall be considered defective.

4.3.2.1 Explosionproofness and spattering. Sticks approximately 1/4 inch in cross section by 6 inches in length shall be prepared by cutting with a die or knife from a firmly pressed layer of the compound on a flat surface. A stick shall be immersed for 5 minutes part way below the surface of a quantity of molten babbitt metal heated to 900° F. plus or minus 25° F. and then withdrawn. Any noticeable deformity or other deterioration of the stick material or any steaming, spattering, or explosion during the immersion shall constitute failure of this test.

4.3.2.2 Temperature performance. Suitable molds approximately 1/2 inch in height by 2 square inches in area with walls approximately 1/4 inch in thickness (approximately 1-cubic inch babbitt capacity) shall be formed. One mold shall be subjected to the high and one to the low temperature as specified in 3.5 for a period of 6 hours. While the temperatures are maintained, molten babbitt metal at 900° F. plus or minus 25° F. shall be poured into the molds and left to cool. When the metal ingots are removed from the mold, their surfaces shall be examined. Nonconformance to 3.5 shall constitute failure of this test.

4.4 Inspection of preparation for delivery.

4.4.1 Quality conformance inspection of pack.

4.4.1.1 Unit of product. For the purpose of inspection, a completed pack prepared for shipment shall be considered a unit of product.

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4.4.1.2 Sampling. Sampling for examination shall be in accordance with MIL-STD-105.

4.4.1.3 Examination. Samples selected in accordance with 4.4.1.2 shall be examined for the following defects. AQL shall be 2.5 percent defective.

- 101. Unit package quantity not as specified.
- 102. Marking illegible, incorrect, or incomplete.

## 5. PREPARATION FOR DELIVERY

5.1 Packaging and packing. The compound, packaged in accordance with the supplier's standard practice in quantities as specified (see 6.2), shall be packed to assure carrier acceptance at lowest rates in containers complying with Uniform Freight Classification Rules, National Motor Freight Classification Rules, or other carrier rules applicable to the mode of transportation.

5.2 Marking. Packages and shipping containers shall be marked in accordance with MIL-STD-129.

## 6. NOTES

6.1 Intended use. The babbitt pouring compound is intended to be used to provide a dam when babbitt bearings are poured.

6.2 Ordering data. Procurement documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Quantity per unit package (see 5.1).

6.3 Typical formulation. The following formula has been found acceptable; however, the Government assumes no responsibility for acceptance of a product formulated under this formula.

<u>Material</u>	<u>Percent by Weight</u>
Organic binder plus other volatiles	42
Asbestos and solid particles over 2 microns	34
Clay and solid particles under 2 microns	24

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6.4 Packaging. Commercial packaging is adequate because of the nature of the end item and its limited use.

6.5 Revision changes. Asterisks are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:

Army - MO(ERDL)

Navy - SH

Air Force - 69

Preparing activity:

Army - MO(ERDL)

Reviewer activities:

Army - MO, WC

Navy - None

Air Force - 69

Users activities:

Army - None

Navy - SH, YD

Air Force - None

Project No. 9350-0044



SPECIFICATION ANALYSIS SHEET		Form Approved Budget Bureau No. 119-R004
<b>INSTRUCTIONS</b>		
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 MIL-D-11568C - Dam Compound, Babbitt Pouring		
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

FOLD

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U. S. ARMY MOBILITY EQUIPMENT CENTER  
RESEARCH, DEVELOPMENT AND ENGINEERING DIRECTORATE  
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