

MIL-S-17726C  
 12 December 1980  
 SUPERSEDING  
 MIL-S-17726B(YD)  
 20 November 1969

## MILITARY SPECIFICATION

### SAND SANDBLAST

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

#### 1. SCOPE

1.1 Scope. This specification covers sand for the removal of scale, paint, sand which adheres to castings, and corrosion from metal surface. For use in a sand blaster machine.

1.2 Classification. The sand shall be of the following grades and classes, as specified (see 6.2):

Grade A (95 percent Silicon,  $SiO_2$ )

Class 1  
 Class 2  
 Class 3  
 Class 4  
 Class 5

Grade B (80 percent Silicon,  $SiO_2$ )

Class 1  
 Class 2  
 Class 3  
 Class 4  
 Class 5

1.3 Part number. The specification part number for items described in this specification will be identified as shown in 6.2.2. This number is a definitive part number which corresponds to the grade and class of sand covered by this specification and defines the options presented herein. The specification number, and the grade and class code identifier are combined to form the definitive specification part number as follows:

M17726 - XX

Specification Number \_\_\_\_\_  
 Grade and Class Identifier (see 6.2.2) \_\_\_\_\_

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commanding Officer (Code 156), Naval Construction Battalion Center, Port Hueneme, CA 93043, by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

## 2. APPLICABLE DOCUMENTS

2.1 Issues of documents. 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.

## SPECIFICATION

## FEDERAL

UU-S-48 - Sacks, Shipping, Paper.

## STANDARDS

## MILITARY

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

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

MIL-STD-147 - Palletized Unit Loads.

(Copies of specifications, standards, drawings, and publications required by contractors in connection with specific acquisition 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.

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

C136-76 - Sieve or Screen Analysis of Fine and Coarse Aggregates, Test for.

C146-72 - Chemical Analysis of Glass Sand.

C169-75 - Chemical Analysis of Soda-Lime and Borosilicate Glass.

C575-70 (1976) - Chemical Analysis of Silica Refractories.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19102.)

## NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION, INC., AGENT

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Associations, Inc., Traffic Department, 1616 P Street, N.W., Washington, DC 20036.)

## UNIFORM CLASSIFICATION COMMITTEE, AGENT

## Uniform Freight Classification.

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

Technical society and technical association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.

## 3. REQUIREMENTS

3.1 Material. The sand shall consist of siliceous grains free of dirt, clay, caustic and corrosive substances, and water soluble materials, except calcium chloride or sodium chloride content shall not exceed .03 percent. The sand shall be tested as specified in 4.4.1 thru 4.4.4.

3.1.1 Grade A. Grade A sand shall contain a minimum of 95 percent silicon dioxide ( $\text{SiO}_2$ ). Unless otherwise specified (see 6.2), the loss upon ignition shall not exceed 1.0 percent, and the moisture content shall not exceed 0.5 percent at the point of shipment.

3.1.2 Grade B. Grade B sand shall contain a minimum of 80 percent  $\text{SiO}_2$ . Unless otherwise specified (see 6.2), the loss upon ignition shall not exceed 1.0 percent, and the moisture content shall not exceed 0.5 percent at the point of shipment.

3.2 Grain shape. Grains shall be angular to rounded in shape.

3.3 Sieve analysis. The sieve analysis of the sands shall be in accordance with Table I.

TABLE I. Sieve analysis (Grade A and B).

U.S. Sieve number standard	Percent retained				
	Class 1	Class 2	Class 3	Class 4	Class 5
4	-	-	-	-	0
6	-	-	-	0	0-5
8	-	-	-	0-5	20-50
10	-	-	0	0-20	30-75
12	-	-	0-5	10-30	75-95
16	-	0	0-20	60-90	95-100
20	0	0-5	10-50	80-100	Trace
30	0-10	5-65	30-90	95-100	-
40	15-60	30-95	80-100	Trace	-
50	75-100	70-95	95-100	-	-
70	90-100	95-100	Trace	-	-
100	95-100	Trace	-	-	-
Pan	Trace	Trace	-	-	-

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3.4 Workmanship. The quality of workmanship shall meet the standards prevalent among manufacturers who normally produce sand of the class specified herein.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, 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 Certificate of compliance. Unless otherwise specified (see 6.2), the contractor shall furnish a certificate with each shipment or lot stating that the material is in compliance with the requirements specified. The Government reserves the right to test the items of the shipment or lot to determine the validity of the certification.

4.1.2 Exemption. When specified in the contract and approved by the contracting officer, a certificate of compliance will be accepted as evidence that the sand meets the requirements of this specification. The certificate must be applicable to sand comparable to that offered to fill the contract. The certificate shall be from a recognized independent laboratory and shall not be dated more than 4 years prior to delivery of the sand (see 6.2).

4.2 Sampling. The sample size for levels of inspection and the acceptable quality levels shall be in accordance with MIL-STD-105.

4.2.1 Lot. A lot shall consist of all containers of sand of the same grade and class submitted for inspection at the same time.

4.2.2 Sampling for testing. Sampling for testing shall be in accordance with level S-2 of MIL-STD-105.

4.3 Testing of the end item. For each lot presented for inspection the end item shall be tested for the applicable characteristics indicated in 4.4.1 thru 4.4.4. The lot size shall be expressed in units of shipping containers. The sample unit shall be 5 pounds (lb) of sand with only one unit selected from a sample container. The sample units shall be composited for testing. All tests shall be performed on the composite sample at the site where the shipment originates. When specified (see 6.2), duplicate determinations shall be performed on the composite. Failure to meet the requirements of Section 3 and the tests of 4.4.1 thru 4.4.4 shall be cause for rejection.

#### 4.4 Test procedures.

4.4.1 Sieve analysis. A sieve analysis test shall be conducted on a portion the sample(s) following the procedures of ASTM C136. The percentages retained shall be in accordance with Table I for the particular class analyzed.

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4.4.2 Silica percentage. A portion of the sample(s) shall be tested by the Single Dehydration Method of ASTM C146 and ASTM C169 to determine the percentage of silica. The percentage shall meet the minimum requirements of 3.1.1 and 3.1.2 for the particular grade tested.

4.4.3 Moisture content. A portion of the sample(s) shall be tested in accordance with ASTM C575 to determine moisture content. The moisture content shall not exceed the limit specified in 3.1.1 and 3.1.2.

4.4.4 Ignition loss. A portion of the sample(s) shall be tested in accordance with ASTM C146 for ignition loss to determine compliance with 3.1.1 and 3.1.2.

4.5 Packaging inspection. The packing and marking of the sand shall be inspected to verify conformance to the requirements of Section 5.

## 5. PACKAGING

5.1 Packing. Packing shall be level A, B, or Commercial as specified (see 6.2).

5.1.1 Levels A and B. Unless otherwise specified (see 6.2), 100 lb of sand shall be packed in sacks as specified in UU-S-48 for dry sand.

5.1.2 Commercial. Unless otherwise specified (see 6.2), sand shall be packed in commercial waterproof containers, in a manner to assure protection against damage and contamination. The containers shall conform to Uniform Freight Classification rules or National Motor Freight Classification rules.

5.2 Palletization. When specified (see 6.2), the containers of sand shall be palletized in accordance with load type XV of MIL-STD-147.

5.3 Marking. In addition to any special marking required by the contract or order, shipping containers and palletized unit loads shall be marked in accordance with MIL-STD-129.

## 6. NOTES

6.1 Intended use. The sand covered by this specification is intended for use in the blast cleaning of castings and metal surfaces in the shop. It is not intended to preclude the procurement of locally available natural sand for field use that would be suitable for the specific application.

6.2 Ordering data. Acquisition documents should specify the following:

- (a) Number, title, and date of this specification.
- (b) Grade and class of sand required (see 1.2).
- (c) When loss on ignition and moisture content is to be other than specified (see 3.1.1 and 3.1.2).
- (d) When certificate of compliance requirements are different (see 4.1.1 and 4.1.2).
- (e) When duplicate determination shall be made (see 4.3).
- (f) Level of packing required (see 5.1).
- (g) If packing is other than specified (see 5.1.1 and 5.1.2).
- (h) When palletization is required (see 5.2).

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6.2.2 Definitive part number. The grade and class of sand (see 3.1.1, 3.1.2, and 3.3) is identified by a three character (1-alpha and 2-numeric) code identifier (see Table II).

TABLE II Grade and class part number.

Grade A	Code ID	Grade B	Code ID
Class 1	A01	Class 1	B06
Class 2	A02	Class 2	B07
Class 3	A03	Class 3	B08
Class 4	A04	Class 4	B09
Class 5	A05	Class 5	B10

Example: The part number for Grade B, Class 4 sand is; M17726-B09.

6.3 Contract data requirements. When this specification is used in a acquisition which incorporates a DD Form 1423 and invokes the provisions of paragraph 7-104.9(n) of the Defense Acquisition Regulations (DAR), the data requirements will be developed as specified by an approved Data Item Description (DD Form 1664) and delivered in accordance with the Contract Data Requirements List (DD Form 1423) incorporated into the contract. When the provisions of DAR 7-104.9(n) are not invoked, the data shall be delivered in accordance with the contract requirements.

6.4 Changes from previous issue. 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 - MR  
Navy - YD  
Air Force - 99

## Preparing activity:

Navy - YD  
Project No. 5350-N054

## Review activities:

Army - AR, MI

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL		OMB Approval No. 22-R255
<p><b>INSTRUCTIONS:</b> The purpose of this form is to solicit beneficial comments which will help achieve procurement of suitable products at reasonable cost and minimum delay, or will otherwise enhance use of the document. DoD contractors, government activities, or manufacturers/vendors who are prospective suppliers of the product are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. 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. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity.</p>		
DOCUMENT IDENTIFIER AND TITLE MIL-S-17726C - SAND, SANDBLAST		
NAME OF ORGANIZATION AND ADDRESS	CONTRACT NUMBER	
	MATERIAL PROCURED UNDER A <input type="checkbox"/> DIRECT GOVERNMENT CONTRACT <input type="checkbox"/> SUBCONTRACT	
<p>1. HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE? A. GIVE PARAGRAPH NUMBER AND WORDING.</p> <p>B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES</p>		
2. COMMENTS ON ANY DOCUMENT REQUIREMENT CONSIDERED TOO RIGID		
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DD FORM 1426  
1 JAN 72

REPLACES EDITION OF 1 JAN 66 WHICH MAY BE USED

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