

[NON-MEASUREMENT SENSITIVE]

A-A-2667

April 20, 1990

COMMERCIAL ITEM DESCRIPTION

SAND, SANDBLAST

The General Services Administration has authorized the use of this commercial item description in lieu of Military Specification MIL-S-17726C

1. SCOPE AND CLASSIFICATION

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

1.2 Classification. The sand shall be of the following grades and classes, as specified (see 6.1).

Grade A (95 percent silicon dioxide, SiO_2).

- Class 1
- Class 2
- Class 3
- Class 4
- Class 5

Grade B (80 percent silicon dioxide, SiO_2).

- Class 1
- Class 2
- Class 3
- Class 4
- Class 5

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data which may improve this document should be sent to: General Services Administration, Industrial Engineering Group (7FXEI), 819 Taylor St., Fort Worth, TX 76102
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DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

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2. APPLICABLE DOCUMENTS

2.1 The documents referenced in this commercial item description shall be the issues in effect on the date of the invitation for bids or request for proposal unless otherwise specified. These documents form a part of this commercial item description to the extent specified. In the event that there is a conflict between this commercial item description and a document referenced herein, this commercial item description shall take precedence.

Federal Standard:

FED-STD-313 - Material Safety Data Sheets, Preparation and Submission of.

Military Standard:

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

Copies of military specifications and standards may be obtained from the Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120.

ASTM standards:

- C 136 - Standard Method For Sieve Analysis Of Fine And Coarse Aggregates.
- C 146 - Standard Methods For Chemical Analysis Of Glass Sand.
- C 169 - Standard Methods For Chemical Analysis Of Soda-Lime and Borosilicate Glass.
- C 575 - Standard Methods For Chemical Analysis Of Silica Refractories.
- D 1214 - Method Of Sieve analysis of Glass Spheres.

Application for copies of ASTM standards should be addressed to ASTM, 1916 Race Street, Philadelphia, PA 19103.

3. SALIENT CHARACTERISTICS

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 0.03 percent. The sand shall be tested as specified in 4.6.1 thru 4.6.4.

3.1.1 Grade A. Grade A sand shall contain a minimum of 95 percent silicon dioxide (SiO_2). Unless otherwise specified (see 6.1), 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 silicon dioxide (SiO_2). Unless otherwise specified (see 6.1), 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	-	-	-

3.4 Material safety data sheet (MSDS). The contracting activity shall be provided a MSDS at the time of contract award. The MSDS is form OSHA-20, found as part of FED-STD-313. The MSDS shall be included with each shipment of the material covered by this document.

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

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4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, 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 that supplies and services conform to prescribed requirements.

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

4.3 Lot formation. Inspection Lot for Quality Conformance Test. For purposes of inspection, a lot shall consist of all sand of the same grade and class manufactured during the same production run. Any product manufactured after the production line is stopped at the end of a production period or for maintenance of equipment, shall be considered a new inspection lot. In any event, an inspection lot may not exceed the product produced in a 24 hour period.

4.5 Sampling for tests. Sampling shall be performed in accordance with Military Standard MIL-STD-105, Special Inspection Level S-3, AQL 15.0 defined in terms of percent defective. The sample unit shall be one unit container fully prepared for delivery. The material from each unit container shall be quartered or riffled by the method described in ASTM D 1214, paragraph 5, except that 500 grams of sand shall be obtained. Each of the samples thus obtained shall be subjected to all of the prescribed tests. Failure of the number of samples during tests equaling the reject number obtained under the above sampling plan shall be cause for rejection of the entire inspection lot.

4.6 Frequency of testing.

4.6.1 Silica content (see 4.7.2) and ignition loss (see 4.7.4) tests shall be performed at the beginning of the contract period or once per year as applicable and again any time the source of the sand (mineral deposit) changes.

4.6.2 Sieve analysis (see 4.7.1) and moisture content (see 4.7.3) tests shall be performed on each product lot (see 4.3).

4.7 Testing.

4.7.1 Sieve analysis. A sieve analysis test shall be conducted on the samples obtained in accordance with 4.5 following the procedures of ASTM C 136. The percentages retained shall be in accordance with Table I for the particular class analyzed.

4.7.2 Silica percentage. A portion of each sample obtained in accordance with 4.5 shall be tested by the Single Dehydration Method of ASTM C 146 and ASTM C 169 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.

4.7.3 Moisture content. A portion of each sample obtained in accordance with 4.5 shall be tested in accordance with ASTM C 575 to determine moisture content. The moisture content shall not exceed the limit specified in 3.1.1 and 3.1.2.

4.7.4 Ignition loss. A portion of each sample obtained in accordance with 4.5 shall be tested in accordance with ASTM C 146 for ignition loss to determine compliance with 3.1.1 and 3.1.2.

4.8 Examination for preparation for delivery. A random sample of unit, intermediate and shipping containers (as applicable) shall be selected from each lot and examined for conformance with the preservation, packaging, packing, labeling and marking required in the contract or order. Samples shall be selected in accordance with MIL-STD-105, Inspection level S-2, AQL 6.5 expressed in terms of defects per hundred unit.

5. PREPARATION FOR DELIVERY

5.1 Preparation for delivery. Unless otherwise specified (see 6.1), 100 pounds net weight of sand shall be packed in multiwall heavy paper bags and sealed in a manner to prevent accidental opening and spillage.

5.1.2 Palletization. When palletization is specified in the contract or purchase order, the palletized load shall be shrinkwrapped or stretch wrapped with heavy plastic film to prevent shifting and moisture damage.

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5.1.3 Marking. In addition to any marking or labeling required by the contract or purchase order, each container shall be conspicuously marked with following:

WARNING
CONTAINS ~~FREE~~ SILICA
DO NOT BREATH DUST
MAY CAUSE DELAYED LUNG INJURY (SILICOSIS)
APPLICABLE OSHA REGULATIONS ARE TO BE FOLLOWED

6. NOTES

6.1 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents (if applicable).

- a. Title, number and date of this commercial item description.
- b. Grade and class.
- c. Quantity and unit of issue.
- d. Preparation for delivery if different than 5.1.
- e. Marking and labeling required.
- f. Palletization if required.

6.2 Part Numbering. Sand conforming with this commercial item description shall be identified by a part number configuration consisting of identification of a portion of the specification number, grade and class. An example of the part number configuration is shown below. This part numbering system is intended for identification and cross-indexing of the item within the Federal cataloging system. Part numbers are not required to be placed on product containers.

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		Class 1, 2, 3, 4, or 5.
		Grade A or B.
	General specification number.	

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MILITARY INTERESTS:

Custodian:

Air Force - -99

Review Activity:

Air Force - 84

User Activity:

Navy - AS, SH

PREPARING ACTIVITY:

GSA - FSS