



AEROSPACE MATERIAL SPECIFICATION

AMS1448**REV. B**

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Superseding AMS1448A

Sand, Airport Snow and Ice Control

RATIONALE

The G-15 Committee and Committee G-12 found that no federal aviation regulatory agency references this document, including the United Nation's ICAO (International Civil Aviation Organization). Because air carriers and airport operators comply with their country's regulatory agencies, both committees have not found any air carriers worldwide or airport operators using this specification.

STABILIZED NOTICE

This document has been declared "Stabilized" by the SAE G-15 Airport Snow and Ice Control Equipment Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

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1. SCOPE:

1.1 Form:

This specification covers natural sand in granular form.

1.2 Application:

This sand has been used typically to improve the frictional properties of runway, taxiway, and ramp surfaces for aircraft braking purposes, but usage is not limited to such applications.

1.3 Precautions:

Sand use may be detrimental to aircraft turbine engines if ingested. Therefore, sand should be applied onto pavements sparingly and as a last recourse to control snow and ice. When applied, it should be carefully monitored and any excess removed when practical. Once the slippery condition no longer exists, remaining sand should be swept off.

2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The applicable issue of referenced publications shall be the issue in effect on the date of the purchase order.

2.1 ASTM Publications:

Available from ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.

ASTM C 136	Sieve Analysis of Fine and Coarse Aggregates
ASTM D 512	Chloride Ion in Water
ASTM D 1193	Reagent Water
ASTM E 11	Wire-Cloth Sieves for Testing Purposes

2.2 U.S. Government Publications:

Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MIL-STD-2073-1 DOD Materiel, Procedures for Development and Application of Packaging Requirements

3. TECHNICAL REQUIREMENTS:

3.1 Material:

Shall be a washed sand, free from stones, debris, clay, salts, organic matter, and other corrosive agents and shall be delivered in a box-dry condition.

- 3.1.1 Gradation: Shall be as shown in Table 1, determined in accordance with ASTM C 136 by passing a sample of dry sand through sieves conforming to ASTM E 11.

TABLE 1 - Sand Gradation

U.S. Standard Sieve Number	Metric	Percent Passing
6	3.35 mm	100
8	2.36 mm	60 to 100
25	710 µm	0 to 20
40	425 µm	0 to 5

3.2 Properties:

Sand shall conform to the following requirements:

- 3.2.1 Chlorides: Shall not exceed 120 mg/kg (0.004 oz/lb) expressed as NaCl, determined in accordance with 3.2.1.1.

- 3.2.1.1 Shake 500 grams of sand thoroughly with 1000 mL of ASTM D 1193, Type IV, water at room temperature. Allow the mixture to separate, then pour off the water layer. If the water is not clear, filter it through a filter. Use the filtrate or the clear separated water as sample solution determine the chloride ion content in accordance with ASTM D 512 and report the value. As a chloride ion check on the filter paper prior to its use, 75 mL of ASTM D 1193, Type IV, water passed through the filter paper should give a negative test for chloride ion.

4. QUALITY ASSURANCE PROVISIONS:

4.1 Responsibility for Inspection:

The vendor of sand shall supply all samples for vendor's tests and shall be responsible for performing all required tests. Purchaser reserves the right to sample and to perform any confirmatory testing deemed necessary to ensure that the sand conforms to the requirements of this specification.

4.2 Classification of Tests:

4.2.1 Acceptance Tests: Tests for composition (3.1), sand gradation (3.1.1), and chlorides (3.2.1) are acceptance tests and shall be performed on each lot.

4.2.2 Periodic Tests: Tests for delivery equipment (5.1) are periodic tests and shall be performed at a frequency selected by the vendor unless frequency of testing is specified by purchaser.

4.2.3 Preproduction Tests: Tests for all technical requirements are preproduction tests and shall be performed prior to or on the initial shipment of sand to a purchaser, when a change in ingredients and/or manufacturing procedures requires reapproval as in 4.4.2, and when purchaser deems confirmatory testing to be required.

4.2.3.1 For direct U.S. Military procurement, substantiating test data and, when requested, preproduction sand shall be submitted to the cognizant agency as directed by the procuring activity, contracting officer, or request for procurement.

4.3 Sampling and Testing:

Shall be as follows:

4.3.1 For Acceptance Tests: Sufficient sand shall be taken at random from each lot to perform all required tests in duplicate; a lot shall be all sand processed in a single production run from the same batches of raw materials under the same fixed conditions and presented for vendor's inspection at one time.

4.3.2 For Periodic Tests and Preproduction Tests: As agreed upon by purchaser and vendor.

4.4 Approval:

4.4.1 Sample sand shall be approved by purchaser before sand for airport use is supplied, unless such approval be waived by purchaser. Results of tests on production sand for airport use shall be essentially equivalent to those on the approved sample.