

SS-S-449

August 8, 1966

SUPERSEDING

Fed. Spec. SS-C-743

October 14, 1942

FEDERAL SPECIFICATION**SLAG AND STONE, CRUSHED; GRAVEL, CRUSHED
AND UNCRUSHED (FOR RAILROAD BALLAST)**

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers aggregates for ballast and subballast, in the construction of railroads.

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

Type I—Slag, crushed, for open hearth or blast furnace.

Type II—Stone, crushed.

Type III—Gravel.
Class 1—Crushed
Class 2—Pit-run
Grade A.
Grade B.

Type IV—Subballast, mixture.

1.3 Sizes. The material shall be of the following sizes, unless otherwise specified (see 6.2):

Inches:

No. 24—2-1/2 to 3/4.
No. 3—2 to 1.
No. 4—1-1/2 to 3/4.
No. 56—1 to 3/8.
No. 57—1 to No. 4.
No. G-1—1-1/2 to No. 50.
No. G-2—1-1/2 to No. 8.
No. G-3—1-1/2 to No. 4.

2. APPLICABLE DOCUMENTS

2.1 Specifications and standards. The following specifications and standards, of the issues in effect on date of invitation for bids, form a part of this specification to the extent specified herein.

Military Standard:

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

(Copies of Military Specifications and Standards required by contractors 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 shall apply.

American Society For Testing And Materials (ASTM) Publication:

D 75—Sampling Stone, Slag, Gravel, Sand, and Stone Block for Use as Highway Materials.

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

American Railway Engineering Association (AREA) Publication:

Part 2, Ballast.

(Application for copies should be addressed to the American Railway Engineering Association, 59 E. Van Buren Street, Chicago, Ill., 60605.)

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

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3. REQUIREMENTS

3.1 **Types I, II, and III.** Aggregate for ballast shall be in accordance with AREA, Part 2 (see 4.4.2).

4. QUALITY ASSURANCE PROVISIONS

4.1 **Responsibility for inspection.** Unless otherwise specified in the contract or 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 that supplies and services conform to prescribed requirements.

4.2 Sampling.

4.2.1 **Lot.** Unless otherwise specified (see 6.2), a lot shall consist of 250 tons of each type or class offered for delivery at the same time.

4.2.2 **Visual examination and tests.** Samples for examination and tests shall be in accordance with ASTM D 75.

4.3 **Visual examination.** Examination of the end item shall be in accordance with table I.

TABLE I. *Classification of defects, end item*

End item	Major	Minor
Type and class not as specified. . .	X	
Size not as specified	X	
Soft and friable pieces in excess of 5 percent present	X	
Material finer than No. 200 sieve in excess of 1 percent present . . .	X	
Clay lumps in excess of 0.5 percent present	X	
Weight of slag less than 70 pounds per cubic foot	X	
Crushed particles present		X

4.4 Tests.

4.4.1 **Acceptance.** The acceptable quality level (AQL) shall be 6.5 percent defective in accordance with MIL-STD-105.

4.4.2 **Procedure.** Tests shall be conducted in accordance with AREA, Part 2 (see 3.1).

5. PREPARATION FOR DELIVERY

5.1 The product shall be prepared for shipment and loaded on rail, truck, or other approved means of transport, to insure safe delivery to destination in accordance with the rules and regulations applicable to the mode of transportation.

6. NOTES

6.1 Intended use.

6.1.1 Types I, II, and III, classes 1 and 2 aggregates are intended for use as ballast in the construction of railroad trackage.

6.1.2 Type IV aggregate mixture is intended for use as a subballast in the construction of railroad trackage. Ordinarily, subballast does not include superior grades of side-barrow material.

6.2 **Ordering data.** Purchasers should select the desired options permitted herein and include the following information in procurement documents:

- (a) Title, number, and date of this specification.
- (b) Type, classes, and grades (see 1.2).
- (c) Size of ballast (see 1.3).
- (d) Size of lot, if different from 4.2.1.

6.3 Size numbers and graduations in size adopted from National Bureau of Standards, R163 (see 1.3).

6.4 Ballast should be cleaned when foul enough to prevent proper drainage. Under normal conditions no ballast except stone, air-cooled blast furnace slag, or open-hearth slag should be cleaned.

MILITARY CUSTODIANS:

Navy—YD

Army—MO

Air Force—69

Review activities:

Navy—YD

Army—MO

Air Force—69

User activities:

MC

Review/user information is current as of the date of this document. For future coordination of changes to this document, draft circulation should be based on the information in the current Federal Supply Classification Listing of DOD Standardization Documents.

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