Ferrous Metallic Abrasive

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Section 1: Scope

1.1 This standard contains the requirements for ferrous metallic abrasive used for the removal of rust, mill scale, paint, or other surface coating systems by blast cleaning (see Note A1 in Appendix A [nonmandatory]).

1.2 This standard covers previously unused abrasive material. It does not address cleanliness of recycled abrasive processed through field or shop abrasive blast cleaning units. Requirements for recycled ferrous metallic abrasive are contained in SSPC-AB 2.

Section 2: Description and Use

2.1 Ferrous metallic abrasive can have two basic particle shapes: (1) spherical or round for shot; and (2) angular or irregular for grit, as defined in Sections 4.1.3.1 and 4.1.3.2.

2.2 The size designations and specifications for shot and grit are given in Tables 1 and 2 (see Note A2).

2.3 **Abrasive Class:** Ferrous metallic abrasive is divided into two classes.

2.3.1 **Class 1 – Steel Abrasive:** Steel abrasive is characterized by low carbon content. Steel abrasive is not as hard as iron abrasive, and hence is more durable.

2.3.2 **Class 2 – Iron Abrasive:** Iron abrasive is characterized by high carbon content and hardness typically over 55 HRC. The particle shape requirements for iron grit are less stringent than those for steel grit.

2.4 **Units of Measure:** This standard makes use of both the IEEE/ASTM SI 10 International System Units (SI) and U.S. Customary units. The measurements may not be exact equivalents; therefore, each system shall be used independently of the other.

Section 3: Referenced Standards and Other Consensus Documents

The latest edition, revision, or amendment of the referenced documents in effect shall govern unless otherwise dated.

AMPP/NACE/SSPC, www.ampp.org:

SSPC-AB 2	Cleanliness of Recycled Ferrous Metallic Abrasive

ASTM International, www.astm.org:

ASTM A751	Standard Test Methods, Practices, and Terminology for Chemical Analysis of Steel Products
ASTM C128	Standard Test Method for Relative Density (Specific Gravity) and Absorption of Fine Aggregate
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM D4940	Standard Test Method for Conductimetric Analysis of Water-Soluble Ionic Contamination of Blast Cleaning Abrasives
ASTM D7393	Standard Practice for Indicating Oil in Abrasives
ASTM E11	Standard Specification for Woven Wire-Test Sieve Cloth and Test Sieves
ASTM E350	Standard Test Methods for Chemical Analysis of Carbon Steel, Low-Alloy Steel, Silicon Electrical Steel, Ingot Iron, and Wrought Iron
ASTM E384	Standard Test Method for Microindentation Hardness of Materials
ASTM E1019	Standard Test Methods for Determination of Carbon, Sulfur, Nitrogen, and Oxygen in Steel and in Iron, Nickel, and Cobalt Alloys by Various Combustion and Fusion Techniques

IEEE, www.ieee.org:

IEEE/ASTM SI 10	American National Standard for Metric Practice

SAE International, www.sae.org:

SAE J444	Cast Shot and Grit Size Specifications for Peening and Cleaning