



Designation: E702 – 85 (Reapproved 2015)

Standard Specification for Municipal Ferrous Scrap¹

This standard is issued under the fixed designation E702; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers the chemical and physical requirements of municipal ferrous scrap that are intended for use by such industries listed as follows:

- 1.1.1 Copper industry (precipitation process),
- 1.1.2 Iron and steel foundries,
- 1.1.3 Iron and steel production,
- 1.1.4 Detinning industry, and
- 1.1.5 Ferroalloy industry.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.3 Questions concerning material rejection, downgrading, and retesting based on failure to meet the requirements of this specification shall be dealt with through contractual arrangements between the purchaser and the supplier.

2. Referenced Documents

2.1 *ASTM Standards*:²

E701 Test Methods for Municipal Ferrous Scrap

3. Terminology

3.1 *Definitions*:

¹ This specification is under the jurisdiction of ASTM Committee D34 on Waste Management and is the direct responsibility of Subcommittee D34.03 on Treatment, Recovery and Reuse.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

3.1.1 *metallic yield*—the weight percent of the municipal ferrous scrap that is generally recoverable as metal or alloy.

3.1.2 *municipal ferrous scrap*—ferrous waste that is collected from industrial, commercial, or household sources and destined for disposal facilities. Typically, municipal ferrous scrap consists of a metal or alloy fraction, a combustible fraction, and an inorganic noncombustible fraction that includes metal oxides.

3.1.3 *total combustibles*—materials that include paints, lacquers, coatings, plastics, etc., associated with the original ferrous product, as well as combustible materials (paper, plastic, textiles, etc.) which become associated with the ferrous product after it is manufactured.

4. Chemical Composition

4.1 Municipal ferrous scrap shall conform to the requirements as to chemical composition for the respective end uses prescribed in Table 1.

4.2 The chemical requirements listed in Table 1 are based on melt analyses except where noted.

5. Physical Properties

5.1 Municipal ferrous scrap shall conform to the physical properties for the respective end uses prescribed in Table 2.

6. Test Methods

6.1 Determine the physical and chemical requirements of municipal ferrous scrap in accordance with Test Methods E701.

7. Keywords

7.1 chemical requirements; copper industry; detinning industry; ferroalloy production; iron and steel foundries; iron and steel production; municipal ferrous scrap; physical requirements