



Standard Guide for Source Reduction Reuse, Recycling, or Disposal of Steel Cans¹

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1. Scope

1.1 This guide provides general information to public officials and business and industry managers regarding the source reduction, reuse, recycling, or disposal of steel cans under 5-gal (wet) or 40-lb (dry) capacity. It presents a comprehensive overview of the steel can life cycle. Fivegallon pails and larger containers, up to 55-gal drums, will be in a separate guide due to their inherently different use and management when empty.

1.2 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

A623 Specification for Tin Mill Products, General Requirements

D5488 Terminology of Environmental Labeling of Packaging Materials and Packages (Withdrawn 2002)³

E701 Test Methods for Municipal Ferrous Scrap

E702 Specification for Municipal Ferrous Scrap

E1134 Specification for Source-Separated Steel Cans (Withdrawn 2001)³

3. Summary of Guide

3.1 Steel can container applications are described, including food, beverage, and general purpose. The processes for steelmaking, steel sheet production, and steel can manufacturing are discussed. The methods of source reduction, reuse, recycling, or disposal of steel cans are explained.

4. Significance and Use

4.1 This guide will familiarize public officials and business and industry managers with source reduction, reuse, recycling, or disposal of steel cans.

5. Typical Steel Can Container Applications

5.1 **Food Cans**—More than 90 % of metal food containers, also known as sanitary cans, are made of steel **(1)**.⁴ While they have been commonly called “tin” cans, the tin coating on steel sheet has become extremely thin as technology advanced. It has been supplemented or replaced by other alternative coatings and treatments so that about one third of all steel cans are now made with tin-free steel **(2)**. Steel food cans contain many types of food products, such as meat, fruit, vegetables, soup, infant formula, and pet food. (See **Fig. 1**.)

5.1.1 **Single-Serving or Home-Use Container**—Steel food cans vary in size and style, in accordance with product and consumer requirements. Can size may range from a few ounces to the typical one-pound net weight container used in the home. They are normally opened with an ordinary manual or electric can opener, but some have aluminum or steel easy-open lids for greater convenience to the consumer.

5.1.2 **Multi-Serving or Commercial/Institutional Container**—Steel food cans are widely used in business and institutional food service facilities and food manufacturing plants. This includes 1-gal (#10) cans and oblong cans, such as for olive oil.

5.2 **Beverage Cans**—Steel cans are widely used for juices and other non-carbonated beverage applications. They may also be used for beer or soft drinks. (See **Fig. 1**.)

5.2.1 **Single-Serving Container**—Steel beverage cans vary in size and style. The 6-oz juice can, commonly used for school lunches, has a foil peel-off closure on the lid, although some now have an all-steel stay-on tab.

5.2.2 **Multi-Serving or Commercial/Institutional Container**—Larger beverage containers, from 46 oz (#5) to 1 gal (#10), are used for home, business, institutions, and food manufacturing.

¹ This guide is under the jurisdiction of ASTM Committee **D10** on Packaging and is the direct responsibility of Subcommittee **D10.19** on Sustainability & Recycling.

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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 The last approved version of this historical standard is referenced on www.astm.org.

⁴ The boldface numbers in parentheses refer to the list of references at the end of this guide.