

PMMI B155-TR2.1-2011

**ANSI Technical Report for packaging machinery
prepared by Packaging Machinery Manufacturers Institute**

TOLERANCES FOR REGULAR SLOTTED CONTAINERS (RSCs)

**Registered: July 17, 2011
by the American National Standards Institute, Inc.**

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Published by:
Packaging Machinery Manufacturers Institute
11911 Freedom Drive, Suite 600, Reston, VA 20190-5629, USA
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The Packaging Machinery Manufacturers Institute (PMMI) is a “standards developing organization” (SDO) accredited by the American National Standards Institute (ANSI). This Technical Report has been approved by the B155 TR2 accredited standards committee of PMMI.

This Technical Report was promulgated by the Packaging Machinery Manufacturers Institute (PMMI) in collaboration with the Fibre Box Association (FBA) as a Technical Report to establish guidelines for tolerances for regular slotted containers (RSCs).

The information in this Technical Report was published as a “voluntary standard” in 1998. That edition updated and combined two earlier documents previously issued by the Fibre Box Association and the Packaging Machinery Manufacturers Institute: Technical report: Tolerances for Top-Opening Regular Corrugated Fibreboard Slotted Containers (RSC), published in April 1967 and revised in May 1976; and Technical report: Tolerances for End-Loading 175 Lb.—200 Lb. B Flute and C Flute Regular Slotted Corrugated Fibreboard Containers (RSC), published in April 1968 and revised in December 1976 and May 1989.

Metric Policy - Dimensions and other units of measure will be given in English followed by metric (SI) units in parentheses (soft conversion from English to Metric units will be permitted (e.g.: 5 $\frac{3}{4}$ (14.6 cm). “Soft Metric” means the result of mathematical conversion of inch-pound measurements to metric equivalents in specifications. The physical dimensions are not changed.¹

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¹ U.S. General Services Administration Acquisition Manual Part 511.001 definitions

1 Scope

1.1 Purpose

This Technical Report was developed by the Fibre Box Association (FBA), the Packaging Machinery Manufacturers Institute (PMMI) and the users of corrugated containers with the intent to enhance understanding between the associations' member manufacturers and the users of the members' products. This Technical Report is voluntary and is not intended to prevent manufacturers from furnishing containers of any agreed-upon dimensions, styles or tolerances beyond those given in this Technical Report.

1.2 Scope

This Technical Report specifies the tolerances for:

- top-opening and end-opening regular slotted containers (RSCs)²,
- made from B- or C-flute singlewall corrugated fiberboard,
- certified to a burst strength of 150 to 275 psi (1034 to 1896 kPa) or an edge crush test (ECT) value of 26 to 44 pounds force per inch (lbf/in)[4.5 to 7.7 kiloNewtons per meter (kN/m)]
- for which no panel dimension is more than 25inches (63.5 cm) or less than 4inches (10.2 cm),
- that are to be erected, filled and closed on automatic packaging machinery.

Corrugated containers manufactured within these tolerances provide a reasonable expectation that:

- The corrugated container is usable and can fulfill its intended function.
- Knocked-down corrugated containers will run on the automatic set-up, filling, and closing equipment for which it was designed.
- Properly erected and filled corrugated containers should stack squarely during palletization.

2 Informative References

The following documents contain provisions or guidelines which constitute additional resources available to the user of this Technical Report. These documents contain requirements the user of this Technical Report should be aware of regarding the application of this Technical Report. All standards/documents are subject to revision, and parties to agreements based on this Technical Report are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

- Fibre Box Handbook (Corrugated industry reference)
- Fibre Box Association:
 - o Understanding the Performance Requirements of Your Customer's Packaging
 - o Edge Crush Test (ECT) – Application and Reference Guide for Combined Corrugated Board
 - o How To Get The Best Box
- TAPPI T 811 Edge Crush Test – Wax Method (Item 222/Rule 41)
- TAPPI T 839 Edge Crush Test – Clamp Method
- TAPPI T 810 Bursting Strength of Corrugated or Solid Fiberboard

3 Definitions

3.1

basis weight / grammage – weight of the paper board expressed in pounds per thousand square feet (lb/msf) or grams per square meter (g/m²)