Designation: F 153 – 95 (Reapproved 2008)

Standard Test Method for Determining the Yield of Wide Inked Computer Ribbons[1]

This standard is issued under the fixed designation F 153; 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 test method covers the determination of the yield of a wide (7 to 17 in. in width) inked computer ribbon.

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]

D 3460 Specification for White Watermarked and Unwatermarked Bond, Reprographic, and Laser Printer Cut-Sized Office Papers[3]

F 221 Terminology Relating to Carbon Paper and Inked Ribbon Products and Images Made Therefrom

F 909 Terminology Relating to Printers

F 1174 Practice for Using a Personal Computer Printer as a Test Instrument

F 1232 Practice for Generating a Test Pattern for Single-Pass Film Ribbons

2.2 *ANSI Standards:*

PH 2.17 Density Measurements—Geometric Conditions for Reflection Density[4]

PH 2.18 Density Measurements—Spectral Conditions[4]

3. Terminology

3.1 *Definitions:*

3.1.1 *end-of-life point*, *n*—the point at which the image quality produced from an inked computer ribbon is determined to be incomprehensible, expressed in terms of optical density. Prior to testing, the concerned parties mutually determine an end-of-life-point.

3.1.2 *yield*, *n*—the end-of-life point of an inked computer ribbon, expressed as the number of printed lines.

4. Summary of Test Method

4.1 This test method consists of testing a computer ribbon under actual use conditions by employing a high-speed printer to use the ribbon to an end-of-life point. All tests are to be made consecutively on the same printer, using the same type font, program, impact, alignment, forms, forms-thickness setting, and manufacturer's lot, grade, and basis weight of paper.

5. Significance and Use

5.1 This test method is used to determine the yield (expressed in the number of printed lines) obtainable under actual use conditions on a given computer ribbon of a definite length.

5.2 This test method is suitable for service evaluation and research and development.

6. Interferences

6.1 Many printers are subject to imaging system variations due to fluctuation of line voltage. Voltage stabilizing devices may be used. If a stabilizing device is not used, tests should be run where the line load is low or stabilized.

6.2 The densitometer reading may also vary with voltage fluctuations. Use the same instructions as in 6.1.

6.3 Fluctuations in temperature and humidity can affect the paper used for image reception. Tests run on different days could show variation in results. All tests should be dated, with temperature and relative humidity recorded.

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[1] This test method is under the jurisdiction of ASTM Committee F05 on Business Imaging Products and is the direct responsibility of Subcommittee F05.02 on Inked Transfer Imaging Products.

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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] Withdrawn.

[4] Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, http://www.ansi.org.