



Standard Test Method for Determining the Erasability of Inked Ribbons¹

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ε¹ NOTE—Keywords were added editorially in February 2000.

1. Scope

1.1 This test method covers the determination of the erasability of inked ribbons.

1.2 Results are expressed in visual ranking order or in comparison to a control.

1.3 *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:

- D 725 Method for Identification of Wire Sides of Paper²
- F 221 Terminology Relating to Carbon Paper and Inked Ribbon Products and Images Made Therefrom³
- F 497 Practice for Use of the Electric and Electronic Typewriter as a Test Instrument³

2.2 TAPPI Standard:

- T 476 Abrasion Loss of Paper and Paperboard⁴

3. Terminology

3.1 Definitions:

3.1.1 For definitions of terms applicable to this test method, refer to Terminology F 221.

4. Summary of Test Method

4.1 This test method subjects a printed pattern to a controlled abrasive action similar to erasing and provides a comparative measure of image removal.

5. Significance and Use

5.1 This test method is used to compare the relative erasability of similar ribbons having approximately the same

amount (degree) of ink (inking) transfer capability. It is suitable for compiling rankings for comparative testing against a control ribbon for service evaluation and quality control (research).

6. Interferences

6.1 The degree of image removal can and will vary due to the differences and variations in paper, machines, inks, types of ink, and ribbon application.

6.2 The use of (the) control ribbons is recommended (since it is impossible to match all possible causes of variation).

7. Apparatus and Materials

7.1 *Typewriter*, or other device for preparing a uniform printed pattern. Special type for creating grid patterns is available from several typewriter manufacturers. Care must be exercised to assure the same typing conditions and paper are used for all samples. Refer to Practice F 497.

7.2 Ribbon of known quality used as a control.

7.3 *Abrasion Tester*—The Taber abraser Model 174, or its equivalent shall be used.

7.4 *Abrasive Wheels*—The grade of Calibrase wheels designated as CS-10F shall be used.

7.5 *Auxiliary Weighs*, 500-g.

7.6 *Specimen Holder*, grade E100-125.

7.7 *Specimen Mounting Cards*, grade S-36.

7.8 *Paper*—In normal use in facility where tests are conducted, the felt side of the paper shall be used for all tests, if the felt side can be identified (see Method D 725). If it can not be identified, use same side for all tests.

8. Test Specimen

8.1 The test specimen shall be a printed pattern created using the test ribbon and control ribbon. Care should be taken that an unused portion of the ribbon is tested.

9. Calibration and Standardization

9.1 Adjust the typewriter to produce a uniform pattern similar in print darkness to typical printing. Maintain this adjustment throughout the test series. See Practice F 497.

9.2 Adjust the abrasion tester according to the instructions found in TAPPI Method T 476.

¹ This test method is under the jurisdiction of ASTM Committee F-5 on Business Imaging Products and is the direct responsibility of Subcommittee F05.02 on Inked Ribbons and Carbon Paper.

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² Discontinued, replaced by TAPPI T455.

³ *Annual Book of ASTM Standards*, Vol 15.09.

⁴ Available from Technical Association of the Pulp and Paper Industry, Technology Park/Atlanta, PO Box 105113, Atlanta, GA 30348.