



Standard Specification for Toilet Tissue for Industrial and Institutional Use¹

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1. Scope

1.1 This specification covers various types and styles of toilet tissue for purchasers such as government agencies, school boards, and industry. (Additional information is given in Appendix X1.)

1.2 This specification covers virgin, recycled, and recycled content paper products (see X1.2):

1.3 The values stated in inch-pound units are to be regarded as the standard. The SI units given in parentheses are for information only.

1.4 The following safety hazards caveat pertains only to the test method portion, Section 9, of this specification: *This standard does not purport to address all of the safety problems, 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 646 Test Method for Grammage of Paper and Paperboard (Weight Per Unit Area)²

D 685 Practice for Conditioning Paper and Paper Products for Testing²

D 824 Test Method for Rate of Absorption of Water by Bibulous Papers²

D 828 Test Method for Tensile Breaking Strength of Paper and Paperboard Using Constant-Rate-of-Elongation Apparatus²

D 1968 Terminology Relating to Paper and Paper Products²

2.2 TAPPI Standards:

T 402 Standard conditioning and testing atmospheres for paper, board, pulp handsheets, and related products³

T 404 Tensile breaking strength and elongation of paper and paperboard (Using pendulum-type tester)³

T 410 Weight per unit area (Grammage or substance) of paper and paperboard³

T 432 Water absorbency of bibulous papers³

T 452 Brightness of pulp, paper and paperboard (Directional reflectance at 457 nm)³

T 494 Tensile breaking properties of paper and paperboard (Using constant rate of elongation apparatus)³

T 525 Brightness of pulp (Diffuse illumination and 0° observation)³

3. Terminology

3.1 *Definitions*—Definitions shall be in accordance with Terminology D 1968 and the *Dictionary of Paper*⁴

4. Classification

4.1 The toilet tissue shall be classified as follows:

4.1.1 *Type*—See Table 1.

4.1.2 *Style*—Style I, Roll; Style II, Folded.

5. Ordering Information

5.1 Orders for tissue based on this specification shall specify the type, style, and type of wrapping (if any).

6. Chemical Composition

6.1 Toilet tissue shall be unglazed, and the fiber content or recycled fiber content, or both, shall be agreed upon between the buyer and seller.

7. Physical Properties

7.1 The average value of each characteristic shall meet the requirements specified in Table 1.

7.2 The number of sheets per roll or package, the sheet width and length, the roll diameter, and the core diameter shall be agreed upon between the buyer and seller.

7.3 *Workmanship*—The toilet tissue shall be made as agreed upon in 8.1 with respect to holes, tears, wrinkles, cleanliness, and foreign materials or dirt. Edges shall be cleanly cut and not ragged.

7.4 *Brightness*—When required, the brightness level shall be agreed upon between the buyer and the seller (see TAPPI T452).

8. Other Requirements

8.1 Precise defect levels and acceptable quality levels shall be agreed upon between the buyer and seller.

¹ This specification is under the jurisdiction of ASTM Committee D-6 on Paper and Paper Products and is the direct responsibility of Subcommittee D06.10 on Consumer Paper Products.

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² *Annual Book of ASTM Standards*, Vol 15.09.

³ Available from the Technical Association of the Pulp and Paper Industry, One Dunwoody Park, Atlanta, GA 30341.

⁴ Available from American Paper Institute, 260 Madison Avenue, New York, NY 10016.