



Designation: D 2475 – 88 (Reapproved 2000)

Standard Specification for Wool Felt¹

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1. Scope

1.1 This specification covers all standard types of wool and part-wool felt in the form of rolls and sheets that are suitable for mechanical use. Certain special-purpose felts are also covered.

1.2 This specification is not applicable to felt-like products that utilize weaving, knitting, stitching, or bonding such as papermaker's felt.

1.3 Trade practice in the felt industry deals in pounds, yards, and inches, therefore the values stated in inch-pound units are to be regarded as standard. The values in SI units are provided as information only.

1.3.1 The specification referenced in 2.2 uses only inch-pound units.

2. Referenced Documents

2.1 ASTM Standards:

D 123 Terminology Relating to Textiles²

D 461 Test Methods for Felt²

2.2 Federal Standard:

C-F-206, Felt Sheet: Cloth Felt, Wool, Pressed³

2.3 Felt Manufacturers Council:

FS14-68/71 Wool Felt Standard Specifications⁴

2.4 SAE Standard:

J314b Felts-Wool and Part Wool⁵

3. Terminology

3.1 Definitions:

3.1.1 *black felt, n*—those classifications of felt manufactured to various shades of the color black.

3.1.2 *felt, n*—a textile structure characterized by interlocking and consolidation of its constituent fibers achieved by the interaction of a suitable combination of mechanical energy, chemical action, moisture, and heat but without the use of weaving, knitting, stitching, thermal bonding, or adhesives.

3.1.2.1 *Discussion*—In practice, light needling or tacking may be used to supplement the ability of the fibers to interlock and consolidate.

3.1.3 *gray felt, n*—a blend of white fibers with naturally colored or dyed fibers or both and that has an overall gray appearance.

3.1.4 *needled felt, n*—a textile structure composed entirely of fibers physically interlocked and reoriented through the action of felting needles.

3.1.5 *orthopedic and surgical felt, n*—a white, soft, low density, highly resilient felt.

3.1.5.1 *Discussion*—Such felts are commonly used in splint pads, abdominal supports, orthopedic devices, and fracture cast linings as well as other medical applications.

3.1.6 *papermaker's felt, n*—a fabric, made from wool or man-made fibers or mixtures of both, fabricated as an endless belt for use on a paper making machine. (See also *felt* and *needled felt*.)

3.1.6.1 *Discussion*—Papermaker's felt received its name because it replaced the sheets of felt used in squeezing the water from newly formed, manually made sheets of paper. Some finished papermaker's felts have matted surfaces similar to wool felts.

3.1.7 *part wool felt, n*—a felt composed of any one of or a combination of new and recycled wool fibers mixed with one or more man-made fibers, vegetable fibers, or animal fibers other than wool.

3.1.8 *recycled wool, n*— as defined in the *Wool Products Labeling Act of 1939 as amended in 1980*,⁶ "the resulting fiber when wool has been woven or felted into a wool product which, without ever having been utilized in any way by the ultimate consumer, subsequently has been made into a fibrous state, or the resulting fiber when wool or reprocessed wool has been spun, woven, knitted or felted into a wool product which, after having been used in any way by the ultimate consumer, subsequently has been made into a fibrous state."

3.1.8.1 *Discussion*—In the amended Act of 1980, the term "recycled wool" replaced the terms "reprocessed wool" and "reused wool."

3.1.9 *specialty felt, n*—one of a number of special purpose felt structures available for, but not limited to, a specific end-use application.

¹ This specification is under the jurisdiction of ASTM Committee D-13 on Textiles and is the direct responsibility of Subcommittee D13.13 on Wool and Wool Felt.

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² *Annual Book of ASTM Standards*, Vol 07.01.

³ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

⁴ Available from the Northern Textile Association, 230 Congress Street, Boston, MA 02110.

⁵ Available from the Society of Automotive Engineers, 2 Pennsylvania Plaza, New York, NY 10001.

⁶ Act of Congress, "Wool Products Labeling Act of 1939," 76th Congress, Third Session, approved October 14, 1939, the amended Act of 1980.