



Standard Guide for Evaluating Fabric Softeners¹

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1. Scope

1.1 This guide evaluates the performance characteristics of fabric softener products. It provides guidance for evaluating the on fabric efficacy of treatment chemicals dosed into the wash, rinse, or dryer cycle in a home laundry washer or dryer. This guide can be used for screening of fabric softener products, or to evaluate the products through multiple accumulative cycles.

1.2 The relative ranking of products assessed by these procedures may be affected by such factors as machine type and settings, fabric load composition, as well as by the washing and drying procedures used.

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.4 *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

E313 Practice for Calculating Yellowness and Whiteness Indices from Instrumentally Measured Color Coordinates
E1958 Guide for Sensory Claim Substantiation
E2164 Test Method for Directional Difference Blue

2.2 AATCC Standard:³

AATCC Test Method 110-1994 Whiteness of Textiles

¹ This guide is under the jurisdiction of ASTM Committee D12 on Soaps and Other Detergents and is the direct responsibility of Subcommittee D12.25 on Consumer Standards.

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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 Available from American Association of Textile Chemists and Colorists, P.O. Box 12215, Research Triangle Park, NC 27709.

3. Terminology

3.1 Definitions:

3.1.1 *fabric softener, n*—laundry auxiliary product or laundry detergent ingredient that gives fabrics a soft feel, smooth surface, provides fragrance, or reduces static electricity, or a combination thereof.

3.1.2 *front-loading high-efficiency (HE) washing machine/washer, n*—horizontally or nearly horizontally oriented machine used for laundry that uses varying amounts of water to launder fabrics.

3.1.2.1 *Discussion*—These washers (1) may not exhibit any visible free water or may show significant quantities of visible free water, (2) may lift and tumble the clothes load, (3) may employ both spinning and tumbling in both the washer or rinse processes, (4) may use jet sprays of wash solution or rinse solution, or (5) may use thermal or chemical inputs, or both, to offer sanitation or allergen claims. HE washers use considerably less water and energy than traditional deep-fill washers in the laundering process. HE washers are labeled by the appliance industry and may be recognized by the U.S. Department of Energy (DOE) and U.S. Environmental Protection Agency (EPA) as Energy Star rated machines.

3.1.3 *home laundering, n*—cleaning or conditioning, or both, of textile materials using the washing and drying equipment commonly found in the home.

3.1.4 *top-loading high-efficiency (HE) washing machine/washer, n*—vertically oriented agitation machine that is used for home laundry, with the fundamental difference from a traditional top-loading washer being that this washer uses reduced water resources during the process.

3.1.4.1 *Discussion*—This washer may (1) deep fill once (during the wash or rinse), (2) partially fill one or more times, (3) may have a full agitator, (4) may have an impeller in place of an agitator, (5) may use thermal or chemical inputs, or both, to offer sanitation or allergen claims, or (6) may use spray washing or spray rinsing technologies, or combination thereof. HE washers use considerably less water and energy than traditional deep-fill washers in the laundering process. HE washers are labeled by the appliance industry and may be recognized by the U.S. DOE and U.S. EPA as Energy Star rated machines.