

Standard Test Methods for Evaluating Design and Performance Characteristics of Motorized Treadmills¹

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INTRODUCTION

The goal of these test methods is to provide reliable and repeatable methods for the evaluation of motorized treadmills. Users of the equipment must recognize that conformance to a standard will not necessarily prevent injuries. Like other physical activities, exercise involving a treadmill involves a risk of injury, particularly if the equipment is not maintained or used properly.

1. Scope

1.1 These test methods specify procedures and equipment used for testing and evaluating a motorized treadmill for compliance to Specification **F2115**. Both design and operational parameters will be evaluated. Where possible and applicable, accepted test methods from other recognized bodies will be used and referenced. In case of a conflict between this document and Specification **F2115**, Specification **F2115** takes precedence.

1.2 This test method is to be used in conjunction with Specification **F2276**, Test Methods **F2571**, and Specification **F2115**.

1.3 This standard takes precedence over Specification **F2276** and Test Methods **F2571** in areas that are specific to motorized treadmills.

1.4 *Requirements*—A motorized treadmill is to be tested for all of the following parameters:

- 1.4.1 Stability,
- 1.4.2 Exterior design,
- 1.4.3 Endurance,
- 1.4.4 Static loading,
- 1.4.5 Overheating,
- 1.4.6 Adjustable incline system function,
- 1.4.7 User interface parameters,
- 1.4.8 Motorized drive system operation,
- 1.4.9 Warning label compliance, and
- 1.4.10 Documentation.

¹ This test method is under the jurisdiction of ASTM Committee **F08** on Sports Equipment and Facilities and is the direct responsibility of Subcommittee **F08.30** on Fitness Products.

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2. Referenced Documents

2.1 *ASTM Standards*:²

F1749 Specification for Fitness Equipment and Fitness Facility Safety Signage and Labels

F2115 Specification for Motorized Treadmills

F2276 Specification for Fitness Equipment

F2571 Test Methods for Evaluating Design and Performance Characteristics of Fitness Equipment

2.2 *UL Standards*:³

UL 1647 Motor Operated Massage and Exercise Machines

2.3 *European Standard*:⁴

EN 957-1 Stationary Training Equipment—Part 1: General Safety Requirements and Test Methods

3. Terminology

3.1 *Definitions*—For definitions applicable to this standard see Specification **F2115**.

4. Significance and Use

4.1 The purpose of these test methods is to provide reliable and repeatable test methods for the evaluation of motorized treadmills assembled and maintained according to the manufacturer's specifications. Use of these test methods in conjunction with Specification **F2115**, Specification **F2276**, and Test Methods **F2571** is intended to insure appropriate performance and reliability of a motorized treadmill and reduce the risk of serious injury from design deficiencies.

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 Underwriters Laboratories (UL), Corporate Progress, 333 Pfingsten Rd., Northbrook, IL 60062.

⁴ Available from CEN Management Centre, 36 rue de Strasse, B-1050, Brussels, Belgium.