



Designation: E 2179 – 03^{ε1}

Standard Test Method for Laboratory Measurement of the Effectiveness of Floor Coverings in Reducing Impact Sound Transmission Through Concrete Floors¹

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^{ε1} NOTE—Sections 4.2 and 4.3 were editorially revised and section 12.1.3 was editorially added in September 2003.

INTRODUCTION

This test method is part of a set for evaluating the sound-insulating properties of building elements. It is designed to measure the reduction in transmission of impact sound due to a floor covering in a laboratory. Others in the set include the measurement of sound isolation in buildings (Test Method E 336), the laboratory methods of measuring airborne sound transmission loss of building partitions such as walls, floor-ceiling assemblies, doors, and other space-dividing elements (Test Method E 90); the laboratory measurement of impact sound transmission through floors (Test Method E 492), the measurement of impact sound transmission in buildings (Test Method E 1007), the measurement of sound transmission through building facades and facade elements (Guide E 966), and the measurement of sound transmission through a common plenum between two rooms (Method E 1414).

1. Scope

1.1 This test method describes a method for the laboratory measurement of the effectiveness of floor coverings in reducing impact noise from a standard tapping machine through concrete floors. The test results are not necessarily directly related to the subjective evaluations of the floor coverings.

1.2 This test method applies to all floor coverings, whether single or multi-layered, as installed on a standard concrete floor. Multi-layered coverings may be factory-assembled or assembled at the test laboratory.

1.3 The test method applies only to laboratory measurements. It does not apply to the measurement of the effectiveness of a floor covering in a field situation.

1.4 *Laboratory Accreditation*—A procedure for accrediting a laboratory for performing this test method is given in Method E 492.

1.5 *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:*

¹ This test method is under the jurisdiction of ASTM Committee E33 on Environmental Acoustics and is the direct responsibility of Subcommittee E33.023 on Open Plan Spaces—Sound Transmission.

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