



Designation: E 2235 – 03⁴

Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods¹

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INTRODUCTION

This test method is part of a set of methods used to evaluate the sound-insulating properties of building elements. It is intended for use in conjunction with methods for measuring the transmission of sound through a partition or partition element in a laboratory or in a building. These methods include the laboratory measurement of airborne sound transmission loss of building partitions and elements (Test Method E 90), the measurement of sound isolation in buildings (Test Method E 336), 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 (Test Method E 1414).

1. Scope

1.1 This test method covers the measurement of sound decay rate in rooms and the calculation of the sound absorption of the room and its contents. The sound absorption so calculated may be used in calculations in sound insulation test methods.

1.2 The method shall be used only in conjunction with other test methods where the logarithm of the sound absorption is used in formulas. It is not sufficiently precise for use in situations where room sound absorption is to be used without taking logarithms.

1.3 For laboratory measurements of the sound absorption of materials and objects, Test Method C 423 should be used.

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.*

¹ This test method is under the jurisdiction of ASTM Committee E33 on Environmental Acoustics and is the direct responsibility of Subcommittee E33.01 on Sound Absorption.

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