



Standard Guide for Specifying and Evaluating Performance of Single Family Attached and Detached Dwellings—Durability¹

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INTRODUCTION

This guide is part of a set which together presents a complete performance standard guide for specifying and evaluating single family attached and detached dwellings. The complete set in the series, when finished, is to include the attributes given in Fig. 1.

The series provides a framework for specifying and evaluating qualities of building products and systems to meet user needs without limiting ways and means. The format for this guide includes performance statements that consist of four components, Objectives-Criteria-Evaluation-Commentary (O-C-E-C), which together provide a systematic performance based approach for the intended purpose. These performance statements are presented in Section 8 against a Hierarchy of Building Elements as tabulated in Fig. 2.

The purpose of these standard guides is to provide a standardized methodology for describing performance parameters of single-family attached or detached dwellings. This methodology standardizes the descriptions of performance of a single-family dwelling, attached or detached, that can be expressed as performance statements (O-C-E-C) for a particular attribute, degradation factor, and user need.

These standard guides are intended for use by those who need to prescribe required levels of performance and those who need to rate a product which forms a single-family dwelling or part thereof. The standard guides include examples of performance statements that may be used for the specification and evaluation of design, materials, products, components, subsystems, and systems.

1. Scope

1.1 This guide gives examples of performance statements for durable in-place materials, products, components, subsystems, and systems for single family attached and detached dwellings, considering the effects of normal degradation factors to which they are anticipated to be subjected over their service lives. Table 1 provides a listing of the sections of this Guide that address durability including the performance statements.

1.2 Damage from extreme acts of nature, vandalism, or intentional destructive acts by dwelling inhabitants are not considered as normal degradation factors affecting durability in this guide.

NOTE 1—Performance statements regarding the performance of single family attached and detached dwellings under extreme acts of nature are addressed in the Guide on Structural Safety and Serviceability.

1.3 This guide also addresses site planning in so far as it affects the durability of single family attached and detached dwellings.

1.4 This guide is not intended to be used as a prescriptive regulatory document.

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

2. Referenced Documents

2.1 *ASTM Standards*:²
B117 Practice for Operating Salt Spray (Fog) Apparatus

¹ This guide is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.25 on Whole Buildings and Facilities.

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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.