



Standard Guide for Specifying and Evaluating Performance of Single Family Attached and Detached Dwellings—Indoor Air Quality¹

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INTRODUCTION

This standard 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 Table 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 standard guide includes performance statements that consist of four components (Objectives-Criteria-Evaluation-Commentary) 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 Table 2.

The purpose of these standard guides is to provide a standardized system for describing performance parameters of single-family attached or detached dwellings. This system 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, agent, 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.

TABLE 1 Attributes Addressed in the Series of Performance Standards for Single Family Attached and Detached Dwellings

A	Structural Safety and Serviceability
B	Fire Safety
C	Accident Safety
D	Health and Hygiene
E	Indoor Air Quality
F	Light
G	Acoustics
H	Durability
I	Accessibility
J	Security
K	Economics
L	Functionality
M	Aesthetics
N	Adaptability
O	Maintainability
P	Sustainability

1. Scope

1.1 This guide contains suggested performance statements for single family residential buildings (attached and detached)

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that address indoor air quality performance including indoor air pollution and thermal comfort. These performance statements are not presented as proposed requirements, but are written in permissive language as suggestions that can be used in developing specifications to satisfy user needs.

1.2 This standard guide does not address other aspects of the indoor environment such as lighting and acoustics.

1.3 Performance statements addressing building ventilation and ventilation rates are also included in the standard, since it is premature to base performance only on indoor air pollution, that is, airborne contaminant concentrations. When health authorities have established contaminant concentration limits for residential environments, it may be possible to define indoor air quality performance in terms of contaminant concentrations rather than ventilation.

1.4 This standard guide is one in a series of guides containing performance statements for residential buildings that are intended for use in the procurement, specification and evaluation of one- and two-family dwellings. These companion standard guides include those noted in the Introduction above.

