



ICBO Evaluation Service, Inc.

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ACCEPTANCE CRITERIA FOR ROOFING SYSTEMS WITH ASPHALT SHINGLES MADE WITH GLASS FELT

AC127

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PREFACE

Evaluation reports issued by the ICBO Evaluation Service, Inc. (ICBO ES), are based upon performance features of the *Uniform Building Code*[™], *ICBO Uniform Mechanical Code*[™] and related codes. Section 104.2.8 of the *Uniform Building Code* is the primary charging section upon which evaluation reports are issued. Section 104.2.8 reads as follows:

The provisions of this code are not intended to prevent the use of any material, alternate design or method of construction not specifically prescribed by this code, provided any alternate has been approved and its use authorized by the building official.

The building official may approve any such alternate, provided the building official finds that the proposed design is satisfactory and complies with the provisions of this code and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in suitability, strength, effectiveness, fire resistance, durability, safety and sanitation.

The building official shall require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding its use. The details of any action granting approval of an alternate shall be recorded and entered in the files of the code enforcement agency.

The attached acceptance criteria for the general code sections noted has been issued to provide all interested parties with guidelines on implementing performance features of the codes. The attached acceptance criteria was developed and adopted following public hearings conducted by the Evaluation Committee and is effective on the date shown above. All reports issued or reissued on or after this date must comply with this criteria. If the criteria is an updated version from a previous edition, solid vertical lines (■) in the outer margin within the criteria indicate a technical change or addition from the previous edition. Deletion indicators (◆) are provided in the outer margins where a paragraph or item has been deleted if the deletion resulted from a technical change. This criteria may be revised from time to time as the need dictates.

ICBO ES may consider alternate criteria, provided the proponent submits valid data demonstrating that the alternate criteria are at least equivalent to the attached criteria and otherwise meet the applicable performance requirements of the codes. Notwithstanding that a material, type or method of construction, or equipment, meets the attached acceptance criteria, or that it can be demonstrated that valid alternate criteria are equivalent and otherwise meet the applicable performance requirements of the codes, if the material, product, system or equipment is such that either unusual care in its installation or use must be exercised for satisfactory performance, or malfunctioning is apt to cause unreasonable property damage or personal injury or sickness relative to the benefits to be achieved by the use thereof, ICBO ES retains the right to refuse to issue or renew an evaluation report.

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1.0 INTRODUCTION

Scope: The purpose of this acceptance criteria is to establish requirements for recognition in ICBO Evaluation Service, Inc. (ICBO ES), evaluation reports of asphalt shingle roof covering systems installed in accordance with Table 15-B-1 of the 1997 *Uniform Building Code*™ (UBC). These criteria apply only to asphalt shingles composed of one or more layers of glass felt impregnated and coated on both sides with asphalt, and surfaced on the weather side with mineral granules.

2.0 BASIC INFORMATION AND REPORTS OF TESTS

2.1 The information discussed in Sections 2.1.1 through 2.1.4 must be submitted.

2.1.1 Product Description: Complete information, as applicable, concerning formulation, density, protective coatings and manufacturing process.

2.1.2 Installation Instructions: Dimensioned scale drawings and installation details, noting installation limitations and size and location of fasteners. Installation shall comply with Table 15-B-1 of the code.

2.1.3 Packaging and Identification: Method of packaging and identification of components. Identification shall include the evaluation report number, name or logo of the quality control agency and notice of any product installation limitations. A copy of the installation instructions that are packaged with the product shall be submitted.

2.1.4 Field Preparation: Method of field cutting, trimming or forming, and treatment of cut edges.

2.2 Testing Laboratories: Testing laboratories shall comply with the ICBO ES Acceptance Criteria for Laboratory Accreditation (AC89).

2.3 Test Reports and Product Sampling: Test reports and product sampling shall comply with the ICBO ES Acceptance Criteria for Test Reports and Product Sampling (AC85). The test report must be in sufficient detail to identify specimen properties that might affect performance as a roof covering. A qualified representative of the testing agency must witness production methods, fabrication and installation of test specimens. The testing agency must verify and report dimensions, weight, density, chemical formulation, treatment, moisture content and other relevant physical properties of the major components. The testing agency must also verify and report

the manner of installation, and provide a description of fastening elements.

3.0 REQUIRED DATA

3.1 Reports of tests must demonstrate that the products comply with all requirements of ASTM D 3462-97.

3.2 Roof Classification Tests:

Fire classification tests under Sections 5.3 and 8.1.3 of ASTM D 3462 shall be conducted in accordance with UBC Standard 15-2.

Conditions of Acceptance: A minimum Class A classification is required.

3.3 Wind Uplift:

Recognition may be granted for use in areas subject to maximum basic wind speeds of 80 mph (129 km/h) on structures a maximum of 40 feet (12 192 mm) in height in Exposure B areas, provided the proponent can verify, in writing, that an investigation has determined that the product will perform satisfactorily when installed under these conditions. Recognition beyond these limits requires full-scale dynamic wind-uplift tests, static-uplift tests, structural calculations, or a combination thereof, as an acceptable alternative.

3.4 Reroofing:

3.4.1 General: Reroofing shall be in accordance with UBC Appendix Chapter 15.

3.4.2 Roof Classification: Systems to be installed over existing roof coverings shall be shown to satisfy minimum Class C classification requirements in accordance with UBC Standard 15-2 by testing of the roof covering system installed over the selected existing roof covering.

Exceptions: 1. Reroofing limited to nonrated roof coverings.

2. Asphalt shingles complying with this acceptance criteria and installed over existing Class A or Class C asphalt shingles are recognized as Class A roofing assemblies and no additional tests are required.

4.0 QUALITY CONTROL

The asphalt shingles shall be produced under a quality control program administered by an inspection agency currently accredited by ICBO ES or recognized by the National Evaluation Service, Inc. A quality control manual developed in consultation with the approved agency, and complying with the ICBO ES Acceptance Criteria for Quality Control Manuals (AC10), must be submitted.