

## ACCEPTANCE CRITERIA FOR WATERPROOF MEMBRANES FOR FLOORING AND SHOWER LINING

### AC115

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Previously approved July 1996

Evaluation reports issued by ICC Evaluation Service, LLC (ICC-ES), are based upon performance features of the International family of codes. (Some reports may also reference older code families such as the BOCA National Codes, the Standard Codes, and the Uniform Codes.) Section 104.11 of the *International Building Code*® reads as follows:

The provisions of this code are not intended to prevent the installation of any materials or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of 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 quality, strength, effectiveness, fire resistance, durability and safety.

This acceptance criteria has been issued to provide interested parties with guidelines for demonstrating compliance with performance features of the codes referenced in the criteria. The criteria was developed through a transparent process involving public hearings of the ICC-ES Evaluation Committee, and/or on-line postings where public comment was solicited.

New acceptance criteria will only have an “approved” date, which is the date the document was approved by the Evaluation Committee. When existing acceptance criteria are revised, the Evaluation Committee will decide whether the revised document should carry only an “approved” date, or an “approved” date combined with a “compliance” date. The compliance date is the date by which relevant evaluation reports must comply with the requirements of the criteria. See the ICC-ES web site for more information on compliance dates.

If this criteria is a revised edition, a solid vertical line (|) in the margin within the criteria indicates a technical change from the previous edition. A deletion indicator (→) is provided in the margin where wording has been deleted if the deletion involved a technical change.

ICC-ES may consider alternate criteria for report approval, provided the report applicant submits data demonstrating that the alternate criteria are at least equivalent to the criteria set forth in this document, and otherwise demonstrate compliance with the performance features of the codes. ICC-ES retains the right to refuse to issue or renew any evaluation report, if the applicable product, material, or method of construction is such that either unusual care with its installation or use must be exercised for satisfactory performance, or if malfunctioning is apt to cause injury or unreasonable damage.

NOTE: The Preface for ICC-ES acceptance criteria was revised in July 2011 to reflect changes in policy.

*Acceptance criteria are developed for use solely by ICC-ES for purpose of issuing ICC-ES evaluation reports.*

# ACCEPTANCE CRITERIA FOR WATERPROOF MEMBRANES FOR FLOORING AND SHOWER LINING (AC115)

## 1.0 INTRODUCTION

**1.1 Purpose:** The purpose of this acceptance criteria is to establish requirements for waterproof membranes for flooring and for shower lining to be recognized in an ICC Evaluation Service, LLC (ICC-ES), evaluation reports under the 2012, 2009 and 2006 *International Building Code*<sup>®</sup> (IBC), the 2012, 2009 and 2006 *International Residential Code*<sup>®</sup> (IRC), the 2012, 2009 and 2006 *International Plumbing Code*<sup>®</sup> (IPC), the 1997 *Uniform Building Code*<sup>™</sup> (UBC) and the 2009 and 2006 *Uniform Plumbing Code* (UPC). The bases of recognition are IBC Section 104.11, IRC Sections R104.11 and P2709.2, IPC Sections 105.2 and 417.5.2, UBC Section 104.2.8 and UPC Sections 301.2 and 411.8.

**1.2 Scope:** This criteria is limited to liquid-applied and sheet membranes used as barriers to positive liquid water migration in load-bearing, bonded, thin-set installations of ceramic tile and dimension stone on floors, and as shower sub-pan lining.

### 1.3 Codes and Reference Standards:

**1.3.1** 2012, 2009 and 2006 *International Building Code*<sup>®</sup> (IBC), International Code Council.

**1.3.2** 2012, 2009 and 2006 *International Residential Code*<sup>®</sup> (IRC), International Code Council.

**1.3.3** 2012, 2009 and 2006 *International Plumbing Code*<sup>®</sup> (IPC), International Code Council.

**1.3.4** 2009 and 2006 *Uniform Plumbing Code*<sup>™</sup> (UPC), International Association of Plumbing and Mechanical Officials.

**1.3.5** ANSI A 118.10-1999, Load Bearing, Bonded, Waterproof Membranes for Thin-set Ceramic Tile and Dimension Stone Installations, American National Standards Institute. For copies of this standard, please contact American National Standards Institute (ANSI), 11 West 42nd Street, New York, New York 11036.

### 1.4 Definitions:

**1.4.1 Hydrostatic Pressure:** Pressure exerted by water at rest.

**1.4.2 Shelf Life:** The maximum time packaged material can be stored under specified conditions and still meet specified performance requirements.

**Substrate:** Material onto which films, treatments, adhesive, sealants, membranes and coatings are applied.

**1.4.3 Waterproofing:** Treatment of a surface or structure to resist the passage of water in liquid form, under hydrostatic pressure.

## 2.0 BASIC INFORMATION

**2.1 Product Description:** Basic information to be submitted with an application for an evaluation report shall be as follows:

**2.1.1** A complete description of the waterproofing material, including base material, i.e., bitumen (asphalt),

urethane, coal-tar pitch, clay or sheet. The description shall also include the thinning agent, i.e., hydrocarbon solvent or water-based emulsion, if applicable.

**2.1.2** Percent solids content of the waterproofing material and/or adhesive used to adhere materials.

**2.1.3** Type and amount of priming material applied to the substrate prior to application of the membrane.

**2.1.4** For a multi component system, the mix ratio, mixing procedure, and working time for the material.

**2.1.5** Amount of liquid material per shipping container.

**2.1.6** Shelf life, including identification provisions.

**2.1.7** Type and amount of sealer material applied as a top coat to the waterproofing material.

**2.1.8** Statements on limitations pertinent to product use, including ultraviolet exposure.

**2.1.9** Description of protective barriers as applicable.

**2.2 Installation Instructions:** Printed installation instructions shall be submitted and shall include the following information:

**2.2.1** Application rate shall be provided for liquid material applied to substrate, measured in gallons per square foot (L/m<sup>2</sup>) and dry film thickness. Application procedure shall be specific as to substrates for which recognition is sought, such as portland cement plaster, treated wood, masonry and concrete. Conditions necessary for proper application shall be included, such as ambient temperature, age of substrate, substrate temperature, site condition (wet, muddy, etc.) and the material temperature.

**2.2.2** Substrate preparation shall address the following:

**2.2.2.1** Removal of deleterious materials that may affect bond and performance.

**2.2.2.2** Treatments of voids, cracks, tie-rod holes, joints, honeycombed areas, brick ledges and other excessively rough areas.

**2.2.2.3** Compatibility of primers and other substrate conditioning materials with the waterproofing material.

**2.2.2.4** Cure time, drying period and other time-related requirements.

**2.2.3** Preparation of material prior to application, including components, proportions, temperature and humidity conditions, method of mixing and pot life of mixture.

**2.2.4** Maximum spacing, method of installation and other information on expansion and control joints.

**2.2.5** Details and instructions for termination/flushing of waterproofing system.

**2.2.6** Type, location and installation procedures for all flashing, counterflashing, caulking and other special treatments.

**2.2.7** Conditions necessary for proper application of protective barriers when used. Complete information

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concerning material specifications, thickness, size and the manufacturing process.

**2.3 Packaging and Identification:** A description of the method of packaging and field identification of the membranes shall be provided. Identification information shall include the manufacturer's name and the evaluation report number.

**2.4 Testing Laboratories:** Testing laboratories shall comply with Section 2.0 of the ICC-ES Acceptance Criteria for Test Reports (AC85) and Section 4.2 of the ICC-ES Rules of Procedure for Evaluation Reports.

**2.5 Test Reports:** Test reports shall comply with AC85.

**2.6 Product Sampling:** Sampling for tests under this acceptance criteria shall be in accordance with Section 3.2 of AC85.

### **3.0 TEST AND PERFORMANCE REQUIREMENTS**

Testing shall be performed to all applicable sections of ANSI A118.10-1999.

### **4.0 QUALITY CONTROL**

**3.1** Quality documentation complying with the ICC-ES Acceptance Criteria for Quality Documentation (AC10) shall be submitted.

**3.2** Third-party follow-up inspections are not required under this acceptance criteria.