

## ICC-ES Evaluation Report

ESR-2201

Reissued July 1, 2011

This report is subject to renewal in one year.

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DIVISION: 07 00 00—THERMAL AND MOISTURE  
PROTECTION

Section: 07 18 13—Pedestrian Traffic Coatings

## REPORT HOLDER:

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## EVALUATION SUBJECT:

WESTCOAT ALX SYSTEM

## 1.0 EVALUATION SCOPE

## Compliance with the following codes:

- 2009 and 2006 *International Building Code*® (IBC)
- 2009 and 2006 *International Residential Code*® (IRC)
- 1997 *Uniform Building Code*™ (UBC)

## Properties evaluated:

- Durability
- Wind resistance
- Fire classification

## 2.0 USES

WestCoat ALX is a walking deck and roof covering system for use directly over plywood roof decks. The system, as described in Section 4.7 of this report, provides a Class A roof covering fire classification.

## 3.0 DESCRIPTION

## 3.1 General:

WestCoat ALX is a polymer modified, cementitious walking deck and roof covering system consisting of plywood substrate covered with expanded metal lath; a polymer modified cementitious base coat and a slurry coat; and a top coat.

## 3.2 Materials:

**3.2.1 Plywood:** Plywood substrates must be exterior grade,  $\frac{5}{8}$ -inch-thick (15.9 mm) plywood complying with U.S. DOC PS-1 or PS-2 (UBC Standard 23-2 or 23-3).

**3.2.2 Metal Lath:** The metal lath must be 2.5 lb/yd<sup>2</sup> (1.36 kg/m<sup>2</sup>), hot-dipped galvanized, expanded metal lath, complying with ASTM C 847.

**3.2.3 Staples:** Staples must be corrosion-resistant, minimum No. 16 gage staples with 1-inch-wide (25 mm) crowns and  $\frac{5}{8}$ -inch-long (15.9 mm) legs, complying with ASTM F 1667.

**3.2.4 TC-1 Cement:** TC-1 cement is a proprietary dry-blend mixture including portland cement and silica sand. The product is packaged in 50-pound (22.5 kg) bags. Shelf life is one year when stored in dry conditions.

**3.2.5 WP-81 Acrylic:** WP-81 Acrylic is a liquid admixture that is used with TC-1 cement. Shelf life is one year when stored at temperatures between 40°F and 100°F (4.4 and 37.8°C) and in a dry place.

**3.2.6 SC-10 Top Coat:** SC-10 Top Coat is a proprietary, water-based liquid sealant used as the topcoat of the WestCoat ALX system. This product is packaged in 1- or 5-gallon pails (3.78 or 18.9 L). Shelf life is one year when stored at temperatures between 40°F and 100°F (4.4 and 37.8°C) and in a dry place.

## 4.0 INSTALLATION

## 4.1 General:

Installation of the WestCoat ALX system must be in accordance with the manufacturer's published installation instructions, the applicable code and this report. The manufacturer's installation instructions must be available on the jobsite during application. The system must be installed only when the ambient temperature is above 55°F (13°C). Materials must not be applied if precipitation is occurring or expected.

## 4.2 Preparation of Plywood Base Material:

Plywood must be clean, dry, and free from dirt or foreign materials that may prevent adhesion of the base coat, and must be installed to framing in accordance with the requirements of the applicable code at a maximum framing spacing of 16 inches (406 mm) on center. All plywood edges must be blocked with nominally 2-by-4 wood members, or panel edges must be tongued and grooved. All through-penetrations and terminations of the sheathing must be protected with metal flashing in accordance with the applicable code. Adequate drainage must be provided in accordance with the applicable code.

## 4.3 Metal Lath:

The metal lath, as described in Section 3.2.2, must be installed with lath edges parallel to plywood substrate joints and offset from the substrate joints by a minimum of 2 inches (51 mm). The lath must be held back  $\frac{1}{2}$  inch (12.7 mm) from all deck edges and stapled to the plywood

substrate with no less than 16 staples per square foot (174 staples per square meter). Lath must be lapped 1 to 2 inches (25 to 51 mm) at seams.

#### 4.4 Base Coat:

The base coat mixture consists of one 50-pound (22.5 kg) bag of TC-1 Cement combined with 1<sup>1</sup>/<sub>4</sub> gallons (4.73 L) of WP-81 Acrylic and up to 1 quart of water (946.4 ml), then mixed until uniform consistency is achieved. The mixture results in a 4.5-gallon (17 L) batch. The base coat mixture must be poured onto the lath at a rate of 40 square feet (3.68 square meters) per 4.5-gallon (17 L) batch. The minimum dry thickness of the base coat must be 0.142 inch (3.6 mm). Prior to the application of the slurry coat, the base coat must be smoothed with a trowel and allowed to cure until firm.

#### 4.5 Slurry Coat:

The slurry coat mixture consists of one bag of TC-1 Cement, 1 gallon (3.78 L) of WP-81 Acrylic, and up to 1 quart (946.4 ml) of water, mixed until uniform consistency is achieved. The slurry coat mixture must be poured onto the cured base coat at a rate of 100 to 150 square feet (9.2 to 13.9 square meters) per 4.5-gallon (17 L) batch, to result in a minimum dry thickness of the slurry coat of 0.063 inch (1.6 mm). The slurry coat must be smoothed with a trowel and allowed to cure until firm.

#### 4.6 Top Coat:

The SC-10 Top Coat must be applied over the cured slurry coat with a roller in one or two applications, for a total coverage rate of 125 square feet per gallon (3.04 m<sup>2</sup>/L), to a minimum thickness of 6 mils (0.152 mm). The coating must be allowed to cure until dry.

#### 4.7 Class A Roof Covering over Plywood Deck:

When the WestCoat ALX system is applied over plywood substrate with all edges blocked and installed in accordance with Section 4.0 at a maximum roof slope of 1<sup>1</sup>/<sub>4</sub> inch per 1 foot (2% slope), the system provides a Class A roof classification.

#### 4.8 Wind Resistance:

Installation must be limited to buildings with a maximum height of 40 feet (12.2 m) above grade, in Exposure B areas with a maximum 3-second-gust basic wind speed of 100 miles per hour (161 km/h), under the IBC and IRC;

and a maximum fastest mile basic wind speed of 80 miles per hour (129 km/h), under the UBC. The plywood and its attachment to support framing must be adequate to resist the required wind load.

#### 4.9 Method of Repair:

The damaged area must be completely removed, including the base coat and lath. New metal lath must be stapled to the clean, dry substrate, and the system reapplied as described in Sections 4.1 through 4.6 of this report. If substrate damage occurs, the retention of the strength properties of the system must be investigated.

### 5.0 CONDITIONS OF USE

The WestCoat ALX System described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Materials must be manufactured and applied in accordance with this report, the applicable code, and the manufacturer's published installation instructions. In the event of conflict between this report and the manufacturer's installation instructions, this report governs.
- 5.2 The products are manufactured for WestCoat Corporation, in San Diego, California, under a quality control program with inspections by Ramtech Laboratories, Inc. (AA-655).
- 5.3 This evaluation report does not recognize use of the WestCoat ALX system in fire-resistance-rated construction.

### 6.0 EVIDENCE SUBMITTED

Data in accordance with the ICC-ES Acceptance Criteria for Walking Decks (AC39), dated May 2011.

### 7.0 IDENTIFICATION

The TC-1, WP-81, and SC-10 products must be labeled with the WestCoat name and the manufacturing address, the date of manufacture, the shelf life and the lot number or production number. In addition to the above, the TC-1, WP-81, and SC-10 products listed in this report are labeled with the ICC-ES report number (ESR-2201) and the name of the inspection agency (Ramtech Laboratories, Inc.)