

ICC-ES Evaluation Report

ESR-2918


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<p>DIVISION: 31 00 00— EARTHWORK</p> <p>Section: 31 31 16— Termite Control</p>	<p>REPORT HOLDER:</p> <p>LANXESS CORPORATION</p>	<p>EVALUATION SUBJECT:</p> <p>PREVENTOL® TM-EPS</p>	
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1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2024, 2021, 2018, 2015, 2012 and 2009 [International Building Code® \(IBC\)](#)
- 2024, 2021, 2018, 2015, 2012 and 2009 [International Residential Code® \(IRC\)](#)

Property evaluated:

- Termite resistance

Attributes verified:

- See Section 3.1

2.0 USES

PREVENTOL® TM-EPS is used to treat expanded polystyrene foam (EPS) to provide protection against termites in accordance with 2024, 2021, 2018, 2015 IBC Section 2603.8 [2012 IBC Section 2603.9 (2009 IBC Section 2603.8)] and 2024 IRC Sections R303.7 and R305.4 (2021, 2018, 2015, 2012 and 2009 IRC Sections R316.7 and R318.4).

3.0 DESCRIPTION

3.1 General:

PREVENTOL® TM-EPS is a treatment process for EPS boards. The EPS boards treated with PREVENTOL® TM-EPS are labeled for use as a termite-resistant foam product. The labeling under this evaluation report refers to termite resistance only. The foam boards must be evaluated under a separate ICC-ES evaluation report for code compliance properties other than termite resistance.

The attributes of the PREVENTOL® TM-EPS treatment process have been verified as conforming to the provisions of (i) ICC 700-2020, ICC 700-2015 and ICC 700-2012 Sections 602.1.6 and 11.602.1.6; and (ii) ICC 700-2008 Section 602.8. Note that decisions on compliance for those areas rest with the user of this report. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions, and the verification of those conditions is outside the scope of this report. These standards often provide supplemental information as guidance. See Section 5.7 for limitations on termite-resistance use.

3.2 Material:

The PREVENTOL® TM-EPS active ingredient is imidacloprid insecticide, which is provided as a concentrate to EPS manufacturing facilities. The concentrate is added prior to or during the polystyrene bead expansion process. The amount of concentrate added to the EPS is based on the final volume of molded EPS, and is

referred to as a dosage rate expressed as ppm (parts per million). The final dosage rate is based on batch size, final EPS density and recommended dosage rate in ppm for use categories as referenced in [Table 1](#).

4.0 DESIGN AND INSTALLATION

PREVENTOL® TM-EPS treated EPS is permitted to be installed in contact with the ground or below grade in areas where the probability of termite infestation is “very heavy” as described in 2024, 2021, 2018, 2015 IBC Section 2603.8 [2012 IBC Section 2603.9 (2009 IBC Section 2603.8)] or 2024 IRC Sections R303.7 and R305.4 (2021, 2018, 2015, 2012 and 2009 IRC Sections R316.7 and R318.4). EPS products that are manufactured with PREVENTOL® TM-EPS are recognized for ground-contact use on the exterior face of foundation walls, under interior or exterior foundation walls or slab foundations below grade, or where located within 6 inches (152 mm) of exposed earth.

5.0 CONDITIONS OF USE:

The PREVENTOL® TM-EPS 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 PREVENTOL® TM-EPS provides EPS protection against termites in accordance with 2024, 2021, 2018, 2015 IBC Section 2603.8 [2012 IBC Section 2603.9 (2009 IBC Section 2603.8)] and 2024 IRC Sections R303.7 and R305.4 (2021, 2018, 2015, 2012 and 2009 IRC Sections R316.7 and R318.4).
- 5.2 For properties other than termite resistance, EPS products treated with PREVENTOL® TM-EPS must be covered under a current ICC-ES evaluation report.
- 5.3 Documentation must be submitted to the code official for approval for each EPS foam board treated with PREVENTOL® TM-EPS demonstrating compliance with IBC Section 2603 and 2024 IRC Section R303 (2021, 2018, 2015, 2012 and 2009 IRC Section R316).
- 5.4 ICC-ES evaluation reports using PREVENTOL® TM-EPS must include [Table 1](#) and [Figure 1](#) of this evaluation report.
- 5.5 Treatment of EPS boards with PREVENTOL® TM-EPS is at the facilities of the EPS board manufacturers with current ICC-ES Evaluation Reports, under a quality-control program with inspections by ICC-ES. Quality-control procedures for use of the PREVENTOL® TM-EPS treatment of EPS foam shall be in accordance with Lanxess Corporation.

6.0 EVIDENCE SUBMITTED

Documentation in accordance with the [ICC-ES Acceptance Criteria for Termite-resistant Foam Plastics \(AC239\)](#), dated October 2008 (editorially Revised February 2024).

7.0 IDENTIFICATION

- 7.1 EPS boards treated with LANXESS Corporation’s PREVENTOL® TM-EPS must be labeled with the name of the inspection agency; the product name (PREVENTOL® TM-EPS) or logo (see [Figure 1](#)); the name of the EPS foam board manufacturer and plant location; the intended end use; and the evaluation report number (ESR-2918). Sample labels are shown in [Figure 1](#).

The EPS foam boards must also be labeled in accordance with the EPS foam company’s current ICC-ES evaluation report (ESR) that documents compliance with the applicable codes, for EPS properties other than termite resistance.

- 7.2 The report holder’s contact information is the following:

LANXESS CORPORATION
111 RIDC PARK WEST DRIVE
PITTSBURGH, PENNSYLVANIA 15275
(412) 809-4774
www.us.lanxess.com

TABLE 1—MINIMUM DOSAGE LEVELS OF PREVENTOL® TM-EPS BY END USE

END USE	MINIMUM ¹
EPS Foam Used Above Ground Contact ² Low Hazard “None to Moderate” Termite Zones Per 2024 IRC Figure R305.4 {2021 Figure R318.4 [2018 IRC Figure R301.2 (7) (2015, 2012 and 2009 IRC Figure R301.2(6))]}, IBC Figure 2603.8 (2012 IBC Figure 2603.9)	100 ppm
EPS Foam Used in Above Ground Contact ² Medium Hazard “Heavy to Very Heavy” Termite Zones Per 2024 IRC Figure R305.4 {2021 Figure R318.4 [2018 IRC Figure R301.2 (7) (2015, 2012 and 2009 IRC Figure R301.2(6))]}, IBC Figure 2603.8 (2012 IBC Figure 2603.9) and Formosan Termites	200 ppm
EPS Foam Used in Ground Contact/Below Ground Contact High Hazard “None to Very Heavy” Termite Zones Per 2024 IRC Figure R305.4 {2021 Figure R318.4 [2018 IRC Figure R301.2 (7) (2015, 2012 and 2009 IRC Figure R301.2(6))]}, IBC Figure 2603.8 (2012 IBC Figure 2603.9) and Formosan Termites	500 ppm

¹The minimum dosage rate is expressed as ppm (parts per million) and is based on the final volume of molded EPS.

²The “Above Ground Contact” End Use applies to foam plastic installed less than 6 inches (152 mm) above grade and exposed earth and not in contact with the ground.

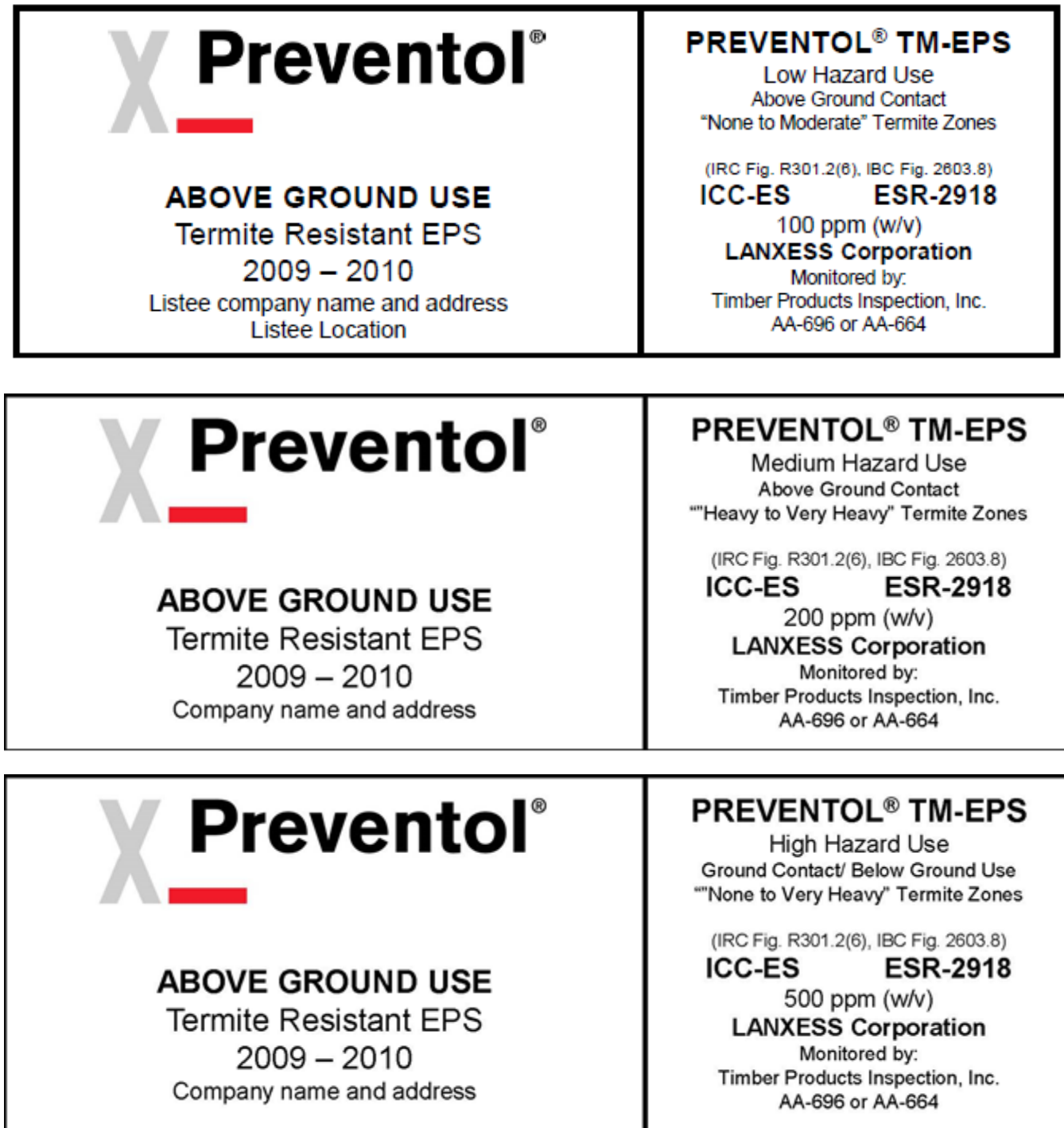


FIGURE 1—SAMPLE PRODUCT LABELS^{1,2}

¹Refer to [Table 1](#) for the definitions of End Use and the applicable Minimum Dosage Level

²The "Above Ground Contact" End Use applies to foam plastic installed less than 6 inches (152 mm) above grade and exposed earth and not in contact with the ground.