

# ICC-ES Evaluation Report

ESR-2252


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<b>DIVISION: 07 00 00— THERMAL AND MOISTURE PROTECTION</b>  <b>Section: 07 25 00— Water-Resistive Barriers/Weather Barriers</b>	<b>REPORT HOLDER:</b>  <b>QINGDAO G &amp; E BIO- POLYTEX COMPANY, LTD.</b>  <b>ADDITIONAL LISTEE:</b>  <b>TECH WRAP, LLC</b>	<b>EVALUATION SUBJECT:</b>  <b>G &amp; E WATER- RESISTIVE BARRIERS: G &amp; E HOUSEGUARD AND G &amp; E HOUSEGUARD-E</b>	
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## 1.0 EVALUATION SCOPE

### 1.1 Compliance with the following code:

- 2024, 2021, 2018, 2015, 2012, 2009 and 2006 [International Building Code® \(IBC\)](#)
- 2024, 2021, 2018, 2015, 2012, 2009 and 2006 [International Residential Code® \(IRC\)](#)

Main references of this report are for 2024 IBC, and IRC. See [Table 2](#) for applicable sections of the code for previous, IBC, and IRC editions.

- 2013 *Abu Dhabi International Building Code (ADIBC)*<sup>†</sup>

<sup>†</sup>The ADIBC is based on the 2009 IBC. 2009 IBC code sections referenced in this report are the same sections in the ADIBC.

### Properties evaluated:

- Water resistance
- Surface-burning characteristics

### 1.2 Evaluation to the following green code(s) and/or standards:

- 2022 [California Green Building Standards Code \(CALGreen\)](#), Title 24, Part 11
- 2020, 2015, 2012 and 2008 ICC 700 [National Green Building Standard™ Standard™](#) (ICC 700-2020, ICC 700-2015, ICC 700-2012 and ICC 700-2008)

### Attributes verified:

- See Section 3.0

## 2.0 USES

G & E Houseguard and G & E Houseguard-E are used as water-resistive barriers on the exterior side of exterior walls of buildings of all construction types under the IBC and the IRC. The membranes are alternatives to the water-resistive barriers required in IBC Section 1403.2 and IRC Section R703.2. The products are also considered equivalent to a Grade D paper in accordance with IBC Section 2510.6, and IRC Section R703.7.3.

## 3.0 DESCRIPTION

The G & E Houseguard membrane is made of high-density polyolefin woven fabric that is coated on both sides with a low-density polyolefin coating.

The G & E Houseguard-E membrane is made of high-density polyolefin woven fabric that is coated on one side with a low-density polyolefin coating.

The membranes are available in rolls of varying sizes. The G & E Houseguard membrane has a flame-spread index of 25 or less and a maximum smoke-developed index not exceeding 450, when tested in accordance with ASTM E84 (UL 723).

The attributes of the water-resistive barriers have been verified as conforming to the provisions of (i) CALGreen Section 5.407.1 and (ii) ICC 700-2020 Section 602.1.8, 11.602.1.8, 1202.6 and 13.104.1.4; (iii) ICC 700-2015 Section 602.1.8, 11.602.1.8 and 12.6.602.1.8; (iv) ICC 700-2012 Section 602.1.8, 11.602.1.8 and 12.5.602.1.8; and (v) ICC 700-2008 Section 602.9 for water-resistive barriers. 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 codes or standards often provide supplemental information as guidance.

## 4.0 INSTALLATION

The membranes must be installed after wall framing and sheathing are installed in accordance with the applicable code, and before windows and doors are installed. The roll must be placed a minimum of 3 inches (76 mm) from the starting corner and fastened to wood framing with corrosion-resistant nails having 1-inch-diameter (25.4 mm) plastic head caps; or to steel framing with corrosion-resistant, minimum No. 7, Type S screws with 1-inch-diameter (25.4 mm) plastic washers. The membrane is unrolled around the building and fastened into each vertical stud line with fasteners spaced between 12 and 18 inches (305 to 457 mm), and into top and bottom sill plates with fasteners spaced 8 inches (203 mm) on center. The printed side must be installed facing the outside. A minimum overlap of 8 inches (203 mm) must be provided for vertical and 6 inches (152 mm) for horizontal seams. Inside and outside corners must be wrapped a minimum of 8 inches (203 mm) to create a double layer at all corners.

When used over wood-based sheathing in exterior plaster applications, two layers of the product must be applied over sheathing or installation must be in accordance with the exception to IBC Section 2510.6, or the exception to IRC Section R703.7.3, as applicable.

When used over wood based sheathing in exterior plaster application in accordance with IBC Section 2510.6 and IRC Section R703.7.3 installations must be as follows:

For dry climate zones (B) in accordance with IBC Section 2510.6.1 or IRC Section R703.7.3.1, for the product must be applied in accordance with IBC Section 2510.6.1 Item 1 or 2 and IRC Section R703.7.3.1 Item 1 or 2, as applicable.

For moist climate zones (A) or marine climate zones (C) in accordance with IBC Section 2510.6.2 or IRC Section R703.7.3.2, the product must be applied in accordance the dry climate zone (B) provisions noted above and with the additional requirements noted in IBC Section 2510.6.2 Item 1 or IRC Section R703.7.3.2 Item 1, as applicable. For cementitious coatings or exterior insulation and finish systems, application must be in accordance with the ICC-ES evaluation report on the exterior coating.

## 5.0 CONDITIONS OF USE:

The G & E Houseguard and G & E Houseguard-E water-resistive barriers described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** The membranes must be covered in accordance with the company's installation instructions with an approved exterior wall covering complying with the applicable code.
- 5.2** Under the 2024, 2021, 2018, 2015 and 2012 IBC, the G & E Houseguard membrane may be used on buildings of Types I, II, III, or IV construction that are not greater than 40 feet (12.2 m) in height above grade plane in accordance with 2024 IBC Section 1402.6 [2021 and 2018 IBC Section 1402.5 (2015 and 2012 IBC Section 1403.5)], except as permitted under Exceptions 1 of IBC Section 1402.6 [2021 and 2018 IBC Section 1402.5 (2015 and 2012 IBC Section 1403.5)]. Under the 2009 and 2006 IBC, the G & E Houseguard membrane may be used on exterior walls of buildings of Types I, II, III, and IV Construction in all building heights.
- 5.3** The G & E Houseguard-E membrane is limited to use on buildings of Type V Construction under the IBC and any construction permitted under the IRC.
- 5.4** The products must not be installed where ASTM E2556 Type I or II building paper is required
- 5.5** The G & E membranes are manufactured under a quality control program with inspections by ICC-ES.

# 6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the [ICC-ES Acceptance Criteria for Water-resistive Barriers \(AC38\)](#), Approved August 2016 (Editorially revised June 2024).
- 6.2 Report of testing in accordance with ASTM E84 (UL 723).

# 7.0 IDENTIFICATION

- 7.1 The G & E membranes are identified by a label or stamp, at regular intervals, bearing the manufacturer's name (Qingdao G & E Bio-Polytex Co., Ltd.), the product name, the manufacturing location (Laixi City, Qingdao, China or Samut Sakorn, Thailand), and the evaluation report number (ESR-2252).

Alternatively, the products described in this report are marked by a label bearing the additional listee's brand name (Tech-Wrap House-wrap Water-resistive Barrier), the product name (See [Table 1](#) of this report), the manufacturing location (Laixi City, Qingdao, China or Samut Sakorn, Thailand), and the evaluation report number (ESR-2252).

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

**QINGDAO G & E BIO-POLYTEX COMPANY, LTD.**  
**GONG YE YUAN QU, JIANG SHAN TOWN**  
**LAIXI CITY, QINGDAO 2660603**  
**CHINA**  
**+(86) 532-5565-1993**  
[www.qdgne.com](http://www.qdgne.com)

- 7.3 The additional listee' contact information is the following:

**TECH WRAP, LLC**  
**215 ANTIOCH CUT OFF ROAD**  
**DALTON, GEORGIA 30721**  
**(706) 275-0512**

TABLE 1—COMPANY NAME, BRAND NAME AND PRODUCT NAME CORRELATION

COMPANY	Qingdao G & E Bio-Polytex Company, Ltd.	Tech Wrap, LLC
BRAND NAME	G & E Water-resistive Barriers	Tech-Wrap House-wrap Water-resistive Barrier
PRODUCT NAME	G & E Houseguard	-
	G & E Houseguard-E	Tech-Wrap™ House-wrap

TABLE 2—APPLICABLE SECTIONS OF THE IBC AND IRC UNDER EDITIONS OF THE CODES

2024	2021	2018	2015	2012	2009	2006
IBC						
1403.2			1404.2			
1402.6	1402.5		1403.5	1403.5	N/A	
2510.6						
IRC						
2024	2021	2018	2015	2012	2009	2006
R703.2						
R703.7.3				703.6.3		

N/A-not applicable.