

ICC-ES Evaluation Report

ESR-1404

Reissued November 1, 2010

This report is subject to re-examination in two years.

www.icc-es.org | (800) 423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

DIVISION: 07—THERMAL AND MOISTURE PROTECTION
Section: 07 25 00—Water-Resistive Barriers/Weather Barriers
Section: 07 27 00—Air Barriers
REPORT HOLDER:
FIBERWEB

 70 OLD HICKORY BOULEVARD
 OLD HICKORY, TENNESSEE 37138

(615) 847-7574

www.typar.com
ADDITIONAL LISTEE:
CERTAINTED CORPORATION

 803 BELDEN ROAD
 JACKSON, MICHIGAN 49203
 (888)919-2378

EVALUATION SUBJECT:
TYPAR® HOUSEWRAP, TYPAR® METROWRAP™ AND CERTAWRAP™ WEATHER RESISTANT BARRIERS (PRIVATE LABEL I)
1.0 EVALUATION SCOPE
Compliance with the following codes:

- 2009 *International Building Code*® (2009 IBC)
- 2009 *International Residential Code*® (2009 IRC)
- 2009 *International Energy Conservation Code*® (2009 IECC)
- 2006 *International Building Code*® (2006 IBC)
- 2006 *International Residential Code*® (2006 IRC)
- 2006 *International Energy Conservation Code*® (2006 IECC)
- BOCA® *National Building Code/1999* (BNBC)
- 1999 *Standard Building Code*® (SBC)
- 1997 *Uniform Building Code*™ (UBC)

Properties evaluated:

- Surface-burning characteristics
- Water-resistance
- Air leakage

2.0 USES

Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ Weather Resistant Barriers are used as water-resistive barriers on the exterior side of exterior walls of buildings of Type V (IBC and UBC), Type 5 (BNBC) or Type VI (SBC) construction. The term “water-resistive barrier” in this report includes water-resistive barriers under Section 1404.2 of the IBC, Section 1404.3 of the BNBC and Section R703.6.3 of the IRC, and a moisture protection barrier under Section 2303.3 of the SBC. Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ are also equivalent to Grade D building paper as described in IBC Section 2510.6, IRC Section R703.6.3, and UBC Standard 14-1 (under Section 1402.1 of the UBC). All products may be used as air barrier materials under IRC Section N1102.1 and IECC Sections 402.4 and 502.4.

3.0 DESCRIPTION

Typar® HouseWrap and CertaWrap are nonwoven, nonperforated, polypropylene materials with a nominal thickness of 11 mils [0.011 inch (0.279 mm)] and a basis weight of 2.8 ounces per square yard (95 g/m²). Typar® MetroWrap™ is a nonwoven, nonperforated, polypropylene material with a nominal thickness of 13.7 mils [0.0137 inch (348 mm)] and a basis weight of 3.5 ounces per square yard (119 g/m²). Sheets are available in rolls of varying size. Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ have a flame-spread index of less than 25 and a smoke-developed index of less than 450 when tested in accordance with ASTM E 84 (UBC Standard 8-1).

The sheet materials have an air leakage rate not exceeding 0.02 L/S-M² [0.004 cfm/ft² at 0.3 w.g. (1.57 psf)] when used as an air barrier material under IRC Section N1102.4.1 and IECC Sections 402.4 and 502.4.

4.0 INSTALLATION

Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ are installed after wall framing is completed and before windows and doors are installed. The roll is placed approximately 6 inches (152 mm) from the starting corner and fastened with 1-inch-crown (25.4 mm) staples, large-headed nails, or 1-inch-diameter (25.4 mm) plastic washer head nails spaced at a maximum of 16 inches (406 mm) on center; and is then unrolled around the building and fastened with nails or staples spaced at a maximum of 16 inches (406 mm) on center. The printed side must be installed facing the outside. A minimum of 6 inches (152 mm) of overlap shall be provided for vertical seams and 2 inches (51 mm) for horizontal seams, except where the manufacturer’s installation instructions specify a

greater overlap dimension. When use is over wood-based sheathing in exterior plaster applications, two layers of product must be applied over sheathing in accordance with Section 2510.6 of the IBC, Section R703.6.3 of the IRC, or Section 2506.4 of the UBC, as applicable. For cementitious coatings or exterior insulation and finish systems, application must be in accordance with the evaluation report on the exterior coating.

The manufacturer's published installation instructions and this report must be strictly adhered to. If requested by the code official, a copy of this report must be available at the jobsite during installation.

5.0 CONDITIONS OF USE

The Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ Weather Resistant Barrier products described in this report comply with, or are suitable alternates to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with this report and the manufacturer's published installation instructions. In the event of conflict between the manufacturer's instructions and this report, this report governs.

- 5.2 Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ are limited to use on buildings of Type V (IBC and UBC), Type 5 (BNBC) or Type VI (SBC) construction and construction permitted by the IRC.

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for Water-resistive Barriers (AC38), dated October 2009.
- 6.2 Report of testing in accordance with ASTM E 84 (UBC Standard 8-1).
- 6.3 Reports of testing in accordance with ASTM E 2178.

7.0 IDENTIFICATION

The Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ products are identified by a label, on the container of each roll of membrane, bearing the company name (Fiberweb, or CertainTeed Corporation), the product name, the manufacturing location (Old Hickory, TN), and the evaluation report number (ESR-1404).

ICC-ES SAVE: Verification of Attributes Report™**VAR-1019**

Issued July 1, 2011

This report is subject to renewal in one year.www.icc-es.org/save | 800-423-6587 | (562) 699-0543

A Subsidiary of the International Code Council®

**DIVISION: 07 00 00—THERMAL AND MOISTURE
PROTECTION****Section: 07 25 00—Water-resistive Barriers/Weather
Barriers****Section: 07 27 00—Air Barriers****REPORT HOLDER:****FIBERWEB, INC.
70 OLD HICKORY BOULEVARD
OLD HICKORY, TENNESSEE 37138
(615) 847-7124**www.fiberweb.com
bmansouri@fiberweb.com**EVALUATION SUBJECT:****SURROUND™ HOUSEWRAP B, W AND G WEATHER
RESISTANT BARRIERS; TYPAR® STORMWRAP™
WEATHER RESISTANT BARRIERS; TYPAR®
HOUSEWRAP WEATHER RESISTANT BARRIERS;
TYPAR® METROWRAP™ WEATHER RESISTANT
BARRIERS; AND CERTAWRAP™ WEATHER
RESISTANT BARRIERS (PRIVATE LABEL I)****1.0 EVALUATION SCOPE****Compliance eligibility with the applicable sections of
the following green building rating systems, standards
and codes:**

- International Green Construction Code – Public Version 2.0 (IGCC PV2.0) (see Table 2 for details)
- ANSI/ASHRAE/USGBC/IES Standard 189.1-2009 – Standard for the Design of High-Performance Green Buildings, Except Low-Rise Residential Buildings (see Table 3 for details)
- National Green Building Standard (ICC 700-2008) (See Table 4 for details)
- LEED for Homes 2008 (see Table 5 for details)
- ANSI/GBI 01-2010 – Green Building Assessment Protocol for Commercial Buildings (see Table 6 for details)

2.0 USES

Surround™ Housewrap B, W and G, Typar® StormWrap™, Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ Weather Resistant Barriers (Private Label I) are used as water-resistive barriers on the exterior side of exterior walls of buildings. Additionally, Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ have been evaluated for use as air barrier materials.

3.0 DESCRIPTION

Surround™ Housewrap B, Surround™ Housewrap W and Surround™ Housewrap G are nonwoven, micro-perforated, polyolefin materials, with a basis weight of 0.22 ounce per square foot (72 g/m²), and are produced in rolls of varying size. The only difference between the products is color. Surround™ Housewrap B is black, Surround™ Housewrap W is white and Surround™ Housewrap G is gray.

Typar® StormWrap™ housewrap is a composite, nonwoven sheet material consisting of a nonwoven polypropylene sheet coated with a microporous polypropylene film, with a basis weight of 0.85 ounce per square foot (260 g/m²). The housewrap is produced in rolls of varying size.

Typar® HouseWrap™ and CertaWrap™ are nonwoven, nonperforated, polypropylene materials with a nominal thickness of 12.9 mils [0.0129 inch (0.328 mm)] and a basis weight of 3.1 ounces per square yard (105 g/m²). The wraps are produced in rolls of varying size. Typar® MetroWrap™ is a nonwoven, nonperforated, polypropylene material with a nominal thickness of 13.7 mils [0.0137 inch (0.348 mm)] and a basis weight of 3.5 ounces per square yard (119 g/m²). MetroWrap™ is produced in rolls of varying size.

4.0 CONDITIONS**4.1 Code Compliance:**

See the ICC-ES reports listed in Table 1 for compliance with applicable code requirements.

4.2 Green Rating Systems, Standards and Code Eligibility:

The information presented in Tables 2 through 6 of this report provides a matrix of areas of evaluation and corresponding limitations and/or additional project-specific requirements, and offers benefit to individuals who are assessing eligibility for credits or points.

The final interpretation of the specific requirements of the respective green building rating system, standard and/or code rests with the developer of that specific rating system or standard, or the Authority Having Jurisdiction, as applicable.

Decisions on compliance for those items noted as “Eligible for Points” in Tables 2 through 6 rests with the user of this report, and those items are subject to the conditions noted. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions; verification of those conditions is outside the scope of this report. Rating systems or standards often provide supplemental information as

guidance. Compliance for items noted as “Verified Attributes” is also subject to any conditions noted in the tables.

5.0 BASIS OF EVALUATION

The information in this report, including the “Verified Attributes,” is based upon the following supporting documentation:

- ICC-ES ESR-1404 (Evaluation applies to IGCC PV2.0 Section 606.1.2; ASHRAE 189.1 Sections 7.4.2.10; ICC 700 Section 703.2.1; LEED Homes EA Credit 3; and ANSI/GBI Section 10.8.1 [for Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ only])

- ICC-ES [ESR-2416](#), [ESR-2431](#) and [ESR-1404](#) (Evaluation applies to ICC 700 Section 602.9)

6.0 IDENTIFICATION

Surround™ Housewrap B, W and G, Typar® StormWrap™, Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ Weather Resistant Barriers (Private Label I) are identified by a label on the container of each roll of membrane and by printing on the product, bearing the report holder’s name (Fiberweb), the manufacturing location (Old Hickory, TN); the product name; and the VAR number (VAR-1019).

TABLE 1—EVALUATION REPORTS FOR FIBERWEB PRODUCTS

PRODUCT	REPORT NUMBER
Surround™ Housewrap B, W and G	ESR-2416
Typar® StormWrap™	ESR-2431
Typar® HouseWrap Typar® MetroWrap™ CertaWrap™ Weather Resistant Barriers (Private Label I)	ESR-1404

TABLES 2 THROUGH 6

Section Number	Section Intent	Possible Points	Conditions Of Use To Qualify For Points	Finding
TABLE 2—SUMMARY OF AREA OF ELEGIBILITY WITH INTERNATIONAL GREEN CONSTRUCTION CODE – PUBLIC VERSION 2.0 (IGCC PV2.0)				
606.1.2	Air leakage mitigation measures shall be provided in accordance with this section.	N/A	Verify that the air barrier material has been installed properly as set forth in IgCC Section 606.1.2	○ ¹
TABLE 3—SUMMARY OF AREA OF ELEGIBILITY WITH ANSI/ASHRAE/USGBC/IES STANDARD 189.1-2009 – STANDARD FOR THE DESIGN OF HIGH-PERFORMANCE GREEN BUILDINGS, EXCEPT LOW-RISE RESIDENTIAL BUILDINGS				
7.4.2.10	Continuous air barrier	Prescriptive	The building envelope shall be constructed with a continuous air barrier complying with Normative Appendix B. Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ meet the requirements of B2 for air barrier materials	● ¹
TABLE 4—SUMMARY OF AREA OF ELEGIBILITY WITH THE NATIONAL GREEN BUILDING STANDARD (ICC 700-2008)				
602.9	Water-resistive barrier	N/A	Install a water-resistive barrier and/or drainage plan system behind the exterior veneer and/or siding	●
703.2.1	Insulation and/or air sealing	3 15 max	Insulation and/or air sealing is installed in accordance with the following, as applicable: (1) third-party verification performed 15 pts, No third-party verification performed 3 pts	○ ¹
TABLE 5—SUMMARY OF AREA OF ELEGIBILITY WITH USGBC'S LEED FOR HOMES 2008				
EA 3	Air infiltration	3 max	To earn 2 or 3 points meet the leakage requirements shown in Table 17 of the rating system, as applicable, when tested and verified by a third-party	○ ¹
TABLE 6—SUMMARY OF AREA OF ELEGIBILITY WITH ANSI/GBI 01-2010 – GREEN BUILDING ASSESSMENT PROTOCOL FOR COMMERCIAL BUILDINGS				
10.8.1	Air barrier	3 6 max	Earn 3 points for Installation of a continuous air barrier as set forth in Section 10.8.1.1 of the standard Earn 3 points for use of an air barrier material tested in accordance with ASTM E2178 where the air permeability of individual materials did not exceed 0.02 L/s·m ² under a pressure differential of 75 Pa (0.004 cfm/ft ²) under a pressure differential of 0.3 in. water (1.57 lb/ft ²)	● ¹
○	= Eligible attribute			
●	= Verified attribute			

¹Applicable to Typar® HouseWrap, Typar® MetroWrap™ and CertaWrap™ only

N/A = Not applicable (i.e. this is a minimum or mandatory requirement and points/credits are not applicable)