



ICC Evaluation Service, Inc.
www.icc-es.org

Business/Regional Office ■ 5360 Workman Mill Road, Whittier, California 90601 ■ (562) 699-0543
Regional Office ■ 900 Montclair Road, Suite A, Birmingham, Alabama 35213 ■ (205) 599-9800
Regional Office ■ 4051 West Flossmoor Road, Country Club Hills, Illinois 60478 ■ (708) 799-2305

Legacy report on the 2000 International Building Code®, the 2000 International Residential Code®, the BOCA® National Building Code/1999, the 1999 Standard Building Code®, the 1997 Uniform Building Code™, 1998 International One- and Two-Family Dwelling Code® and the 1998 and 2000 International Energy Conservation Code® and the 2002 Accumulative Supplement to the International Codes™

DIVISION: 07—THERMAL AND MOISTURE PROTECTION

Section: 07270—Air Barriers

Section: 07280—Water-Resistive Barriers

E.I. DU PONT DE NEMOURS AND COMPANY, INC.

FIBERS DEPARTMENT

CHESTNUT RUN PLAZA

P.O. BOX 80728

WILMINGTON, DE 19880-0728

tyvekinf@usa.dupont.com

www.tyvek.com

1.0 SUBJECT

- 1.1 Tyvek® HomeWrap®
1.2 Tyvek® StuccoWrap® - Style 1062X
1.3 Tyvek® CommercialWrap® - Style 1162B
1.4 Tyvek® HeaderWrap®

2.0 PROPERTY FOR WHICH EVALUATION IS SOUGHT

- 2.1 Water-resistive/Moisture protection barrier
2.2 Air infiltration barrier
2.3 Surface-burning characteristics

3.0 DESCRIPTION

Tyvek® HomeWrap®, Tyvek® StuccoWrap® and Tyvek® CommercialWrap®¹ consist of 100 percent flash spunbonded olefin and are manufactured from polyethylene fibers which have been bonded by heat and pressure, without binders or fillers, into a sheet.

Tyvek® HomeWrap®, Tyvek® StuccoWrap® and Tyvek® CommercialWrap® are intended to be installed on the exterior side of exterior walls behind an approved weather covering. The Tyvek® wraps have been evaluated as an alternative to the water-resistive barrier (moisture protection barrier, weather-resistive barrier or weather-resistant sheathing) prescribed in the following codes:

- International Building Code®, Sections 1404.2 and 1403.2
• International Residential Code®, Sections R703.2, Tables R703.4 and R703.9.1
• BOCA® National Building Code, Sections 1404.2 and 1406.3.6
• Standard Building Code®, Section 2303.3
• Uniform Building Code™, Section 1402.1
• International One- and Two-Family Dwelling Code®, Sections 703.2 and 703.4

Tyvek® HomeWrap®, Tyvek® StuccoWrap® and Tyvek® CommercialWrap® also function as an air infiltration barrier. Although not mandatory, further enhancements in performance of the air infiltration barrier are achieved with the use of Tyvek® HeaderWrap®, which is identical to Tyvek® HomeWrap®, except that it is cut into rolls with a width of 18 in. (457 mm). The Tyvek® HeaderWrap® is intended to be installed at the band joist and top plate areas of an exterior wall. Sealing the edges and joints in the Tyvek® HeaderWrap® with Tyvek® Contractor Tape significantly increases the air infiltration resistance of an exterior wall.

Tyvek HomeWrap®, Tyvek® StuccoWrap® and Tyvek® CommercialWrap® film have a flame spread index (FSI) of less than 25 and a smoke-developed index (SDI) of less than 450 when tested in accordance with ASTM E 84.

4.0 INSTALLATION

The manufacturer's published installation instructions and this report shall be complied with and a copy of these instructions shall be available on the job site during installation. The instructions within this report govern if there are any conflicts between the manufacturer's instructions and this report.

5.0 IDENTIFICATION

All packages containing Tyvek® HomeWrap®, Tyvek® StuccoWrap® and Tyvek® CommercialWrap® described in this report shall be identified by a label bearing the manufacturer's name and address, and this evaluation report number for field identification.

¹ Tyvek® is a Du Pont registered trademark for its brand of spunbonded olefin. HomeWrap®, StuccoWrap®, Commercial-Wrap®, and HeaderWrap® are Du Pont trademarks for its brand of weatherization system.



## 6.0 EVIDENCE SUBMITTED

- 6.1** Reports of tests conducted by United States Testing Co., Inc.:
- 6.1.1** Report No. 096899, dated February 16, 1990, containing results of moisture vapor transmission, breaking strength, basis weight, caliper, hydrostatic resistance, and porosity.
- 6.1.2** Report No. 005973, dated February 9, 1990, containing results of hydrostatic resistance and pliability testing of weathered samples.
- 6.1.3** Report No. 099513-1, dated November 13, 1990, containing results of flammability testing of No. 15 asphalt-saturated building paper, in accordance with ASTM E 84.
- 6.1.4** Report No. 099513-2, dated November 21, 1990, containing results of breaking strength and thickness testing of No. 15 asphalt-saturated building paper.
- 6.1.5** Report No. 099513-3, dated November 29, 1990, containing results of physical property testing of No. 15 asphalt-saturated building paper.
- 6.1.6** Report No. 099513-4, dated November 15, 1990, containing results of hydrostatic resistance and trapezoidal tear of No. 15 asphalt-saturated building paper, in accordance with ASTM E 84.
- 6.2** Reports of tests conducted by SGS U.S. Testing Co., Inc.:
- 6.2.1** Report No. 119053, dated August 26, 1996, containing results of physical property testing of the Tyvek® wrap materials.
- 6.2.2** Report No. 102439-1, dated January 9, 1998, containing results of physical property testing of the Tyvek® wrap materials.
- 6.2.3** Report No. 106340-A1, dated April 16, 1998, containing results of physical property testing of the Tyvek® wrap materials.
- 6.2.4** Report No. 106331, dated May 18, 1998, containing results of physical property testing of the Tyvek® wrap materials.
- 6.2.5** Report No. 120066, dated December 13, 1996, containing results of physical property testing of Tyvek® wrap materials.
- 6.2.6** Report No. 119053-1, August 13, 1996, containing results of testing performed in accordance with ASTM E 84.
- 6.2.7** Report No. 102439-1, dated December 15, 1997, containing results of testing performed in accordance with ASTM E 84.
- 6.2.8** Report No. 106340-1, dated April 1, 1998, containing results of testing performed in accordance with ASTM E 84.
- 6.3** Architectural Testing Inc., Report No. ATI-8507/8508, dated July 29, 1991, revised March 10, 1992 containing results of air infiltration and exfiltration testing of various wall assemblies performed in accordance with ASTM E 283.
- 6.4** Air-Ins, Inc., Report No. AI-01025-A, dated August 15, 1996, containing results of air permeance testing. The test method used evaluated the intrinsic air permeance

or resistance of building materials. The data indicates that the Tyvek® wrap material exhibited a lower air flow rate than No. 15 asphalt-saturated building paper.

- 6.5** Walker Engineering, Inc., Report titled *Evaluation of DuPont Tyvek as Moisture Protection for Exterior Walls*, dated April 28, 1992, containing an engineering evaluation of Tyvek as moisture protection for exterior walls.
- 6.6** DSET Laboratories, Inc, Report No. DSET 36599, dated January 29, 1990, containing results of UV exposure testing.
- 6.7** Southwest Research Institute, Report No. 01-7283-405, dated May 3, 1983, containing results of thermal transmittance testing.
- 6.8** Ramtech Laboratories, Inc. Report Nos. 6775-83 and 6775-A-83, dated September 29, 1983, containing results of comparative hydrostatic testing.

## 7.0 CONDITIONS OF USE

The ICC-ES Subcommittee for the National Evaluation Service finds that the Tyvek® HomeWrap®, Tyvek® StuccoWrap® - Style 1062X, Tyvek® CommercialWrap® - Style 1162B and Tyvek® HeaderWrap® described in this report complies with or is a suitable alternative to that specified in the 2000 *International Building Code*®, the 2000 *International Residential Code*®, the BOCA® *National Building Code/1999*, the 1999 *Standard Building Code*®, the 1997 *Uniform Building Code*™, 1998 *International One- and Two-Family Dwelling Code*® and the 1998 and 2000 *International Energy Conservation Code* and the 2002 *Accumulative Supplement to the International Codes*™, subject to the following conditions:

- 7.1** The Tyvek® wraps listed in this report shall be installed in accordance with the manufacturer's instructions, subject to the conditions of this report.
- 7.2** The Tyvek® HomeWrap®, Tyvek® StuccoWrap®, and Tyvek® HeaderWrap® wrap shall be covered with an approved weather-resistive covering complying with the applicable code within 120 days after application. Tyvek® CommercialWrap® shall be covered with an approved weather-resistive covering complying with the applicable code within 270 days after application.
- 7.3** In jurisdictions adopting the *Standard Building Code* the use of the Tyvek wraps listed in this report shall be limited to use on buildings of Type VI (Combustible) construction.
- 7.4** The Tyvek® wraps listed in this report shall not be used in roofing applications.
- 7.5** This report is subject to periodic re-examination. For information on the current status of this report, contact the ICC-ES.