ICC-ES Evaluation Report

ESR-1027

Reissued October 2023

Revised September 2024

Subject to renewal October 2025

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DIVISION: 07 00 00 - THERMAL AND MOISTURE PROTECTION **Section: 07 25 00—Water-Resistive Barriers/Weather** **Barriers 07 27 00—Air Barriers**	**REPORT HOLDER:** **HENRY A CARLISLE COMPANY**	**EVALUATION SUBJECT:** **JUMBO TEX®, SUPER JUMBO TEX 60 MINUTE®, WEATHERSMART® TWO-PLY HYDRO TEX®, AND TWO-PLY HYDRO TEX D® WATER-RESISTIVE BARRIERS**	

1.0 EVALUATION SCOPE

1.1 Compliance with the following codes:

- 2024, 2021, 2018 and 2015 *International Building Code®* (IBC)
- 2024, 2021, 2018 and 2015 *International Residential Code®* (IRC)
- 2024, 2021, 2018 and 2015 *International Energy Conservation Code®* (IECC)

Properties evaluated:

- Physical properties
- Air barrier
- Surface-burning characteristics
- Drainage efficiency (Two-Ply Hydro Tex and Two-Ply Hydro Tex D)
- Fire-resistance-rated walls (Jumbo Tex and Super Jumbo Tex 60 Minute)

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

- 2022 *California Green Building Standards Code* (CALGreen), Title 24, Part 11
- 2021, 2018 and 2015 *International Green Construction Code®* (IgCC)
- 2020, 2017 and 2014 ANSI/ASHRAE/USGBC/IES Standard 189.1–Standard for the Design of High-Performance Green Buildings, Except Low-Rise Residential Buildings
- 2020 and 2015 ICC 700 *National Green Building Standard™* (ICC 700-2020 and ICC 700-2015)

Attributes verified:

- See Section 2.0

2.0 USES

Jumbo Tex, Super Jumbo Tex 60 Minute, WeatherSmart, Two-Ply Hydro Tex, and Two-Ply Hydro Tex D are used as water-resistive barriers on the exterior side of exterior walls of buildings of Type V construction under the IBC and construction permitted under the IRC. The water-resistive barriers comply with ASTM E2556 Type II in accordance with IBC Section 2510.6 and 2024 and 2021 IRC Section R703.7.3 and are equivalent to Grade D paper with a 60-minute water resistance rating as described in the exception to 2018 and 2015 IRC Section R703.7.3.

WeatherSmart may be used as an air barrier material in accordance with 2024 IRC Section N1102.5.1 (2021, 2018 and 2015 IRC Section N1102.4.1), or 2024 IECC Sections C402.6 and R402.5 (2021, 2018 and 2015 IECC Sections C402.5 and R402.4).

The attributes of the water-resistive barriers have been verified as conforming to the provisions of (i) CALGreen Section 5.407.1 for water-resistive barriers; (ii) ICC 700-2020 Sections 602.1.8, 11.602.1.8, 1202.6 and 13.104.1.4; and (iii) ICC 700-2015 Section 602.1.8, 11.602.1.8 and 12.5.602.1.8 for water-resistive barriers.

The attributes of WeatherSmart have been verified as conforming to the provisions of (i) CALGreen Section A4.407.5 for air barriers; (ii) 2021 IgCC Section 701.3.1.2, 2018 IgCC Section 701.3.1.1 and 2015 IgCC Section 605.1.2.1 for air barriers; and (iii) 2020 ASHRAE 189.1 Section 7.3.1.2, 2017 and 2014 ASHRAE 189.1 Section 7.3.1.1 for air 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.

3.0 DESCRIPTION

3.1 Jumbo Tex:

Jumbo Tex is a Grade D asphalt-saturated kraft building paper. Jumbo Tex weighs 3.6 pounds per 100 square feet (0.18 kg/m^2) and is manufactured in rolls of varying sizes.

3.2 Super Jumbo Tex 60 Minute:

Super Jumbo Tex 60 Minute is a Grade D asphalt-saturated kraft building paper with a 60-minute water-resistance rating. Jumbo Tex weighs 6 pounds per 100 square feet (0.29 kg/m^2) and is manufactured in rolls of varying sizes.

3.3 WeatherSmart:

WeatherSmart is a Grade D, nonwoven, polypropylene fabric with a monolithic polymer coating on one side, and has a 60-minute water-resistance rating. WeatherSmart weighs 1.9 pounds per 100 square feet (0.09 kg/m^2) and is manufactured in rolls of varying sizes. When used as an air barrier material, the product has an air permeance not exceeding 0.02 L/(s m^2) @ 75 Pa [0.004 cfm.ft^2 at 0.3 w.g. (1.57 psf)].

3.4 Two-Ply Hydro Tex:

Two-Ply Hydro Tex is a two-layer water-resistive barrier comprised of one layer of Super Jumbo Tex 60 Minute, as described in Section 3.2, and one layer of WeatherSmart® Drainable (ESR-3791). Two-Ply Hydro Tex weighs 7.4 pounds per 100 square feet (0.36 kg/m^2) and is manufactured in rolls of varying sizes.

3.5 Two-Ply Hydro Tex D:

Two-Ply Hydro Tex D is a two-layer water-resistive barrier comprised of one layer of Super Jumbo Tex 60 Minute, as described in Section 3.2, and one layer of WeatherSmart® D Drainable (ESR-5320). Two-Ply Hydro Tex D weighs 7.4 pounds per 100 square feet (0.36 kg/m^2) and is manufactured in rolls of varying sizes.

3.6 Surface Burning Characteristics:

The water-resistive barriers have a flame spread index of less than 100 and a smoke-developed index of less than 450, when tested in accordance with ASTM E84.

3.7 Drainage Efficiency:

When installed in accordance with Section 4.4 Two-Ply Hydro Tex and Two-Ply Hydro Tex D have a drainage efficiency rating of 90 percent or more as determined in accordance with ASTM E2773.

4.0 INSTALLATION

4.1 General:

The water-resistive barriers must be installed in accordance with 2024, 2021 and 2018 IBC Section 1403.2 and (2015 IBC Section 1404.2) or IRC Section R703.2, as applicable, on the exterior side of exterior wall framing, sheathing or insulation, with the printed side installed facing outward.

The water-resistive barriers described in this report are installed after wall framing is completed and before or after windows and doors are installed. The roll is placed approximately 6 inches (152 mm) from the starting corner, except where the manufacturer's installation instructions specify a greater dimension, and is fastened with corrosion-resistant staples, corrosion-resistant nails, or corrosion nails or staples having plastic washer heads, The water-resistive barrier is then unrolled horizontally around the building and fastened in accordance with the manufacturer's published installation instructions. A minimum of 6 inches (152 mm) of overlap is to be provided for vertical seams and 2 inches (51 mm) for horizontal seams, except where the manufacturer's published installation instructions specify a greater overlap.

When the water-resistive barriers are installed over wood-based sheathing in exterior plaster applications, the water-resistive barriers must be applied in two layers over the sheathing, in accordance with 2018 and 2015 IBC Section 2510.6 and 2018 or 2015 IRC Section R703.7.3, as applicable. As an alternative, the water-resistive barriers may be installed in a single layer in accordance with the exception to 2018 and 2015 IBC Section 2510.6 and 2018 and 2015 IRC Section R703.7.3.

When Jumbo Tex, Super Jumbo Tex 60 Minute, or WeatherSmart are used over wood based sheathing in exterior plaster applications in accordance with 2024 and 2021 IBC Section 2510.6 and 2024 and 2021 IRC Section R703.7.3 installations must be as follows:

- For dry climate zones (B) in accordance with 2024 and 2021 IBC Section 2510.6.1 or 2024 and 2021 IRC Section R703.7.3.1, the products must be applied in accordance with 2024 and 2021 IBC Section 2510.6.1 Item 1 or 2 and 2021 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 2024 and 2021 IBC Section 2510.6.2 or 2024 and 2021 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 2024 and 2021 IBC Section 2510.6.2 Item 1 or 2024 and 2021 IRC Section R703.7.3.2 Item 1, as applicable.

When Two-Ply Hydro Tex or Two-Ply Hydro Tex D are used over wood based sheathing in exterior plaster applications in accordance with 2024 and 2021 IBC Section 2510.6 and 2024 and 2021 IRC Section R703.7.3 for installations must be as follows:

- For dry climate zones (B) in accordance with 2024 and 2021 IBC Section 2510.6.1 or 2024 and 2021 IRC Section R703.7.3.1, the products must be applied in accordance with 2024 and 2021 IBC Section 2510.6.1 Item 1 or 2 and 2024 and 2021 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 2024 and 2021 IBC Section 2510.6.2 or 2024 and 2021 IRC Section R703.7.3.2, the products must be applied in accordance the dry climate zone (B) provisions noted above and with the additional requirements noted in 2024 and 2021 IBC Section 2510.6.2 Item 1 or 2 or 2024 and 2021 IRC Section R703.7.3.2 Item 1 or 2, as applicable.

For cementitious coatings or exterior insulation and finish systems, application is to be in accordance with the ICC-ES evaluation report on the exterior coating system.

4.2 Fire-resistance-rated Construction Assemblies:

In Type V-A construction, the Jumbo Tex, and Super Jumbo Tex 60 Minute water-resistive barriers may be used in exterior fire-resistance-rated assemblies described in IBC Table 721.1(2), or described in a current ICC-ES evaluation report that specifies use of building paper, without changing the assigned hourly rating of the assembly.

4.3 Air Barrier:

WeatherSmart, when used as an air barrier material, must be installed in accordance with the manufacturer's published installation instructions and this report.

4.4 Wall Covering Assembly with Drainage

4.4.1 Two-Ply Hydro Tex:

Two-Ply Hydro Tex has drainage efficiency rating of 90 percent or more as determined in accordance with ASTM E2773 when installed in an exterior wall assembly that consists of minimum $^{15}/_{32}$-inch-thick (11.9 mm) Exposure 1 oriented strand board (OSB) sheathing applied to wood studs spaced a maximum of 16 inches (406 mm) on center and fastened in accordance with the requirements of IBC Chapter 23 or IRC Chapter 6. Vertical board edges must butt over studs. Two-Ply Hydro Tex must be applied as described in Section 4.1. The Two-Ply Hydro Tex wrap must be fastened to the sheathing with 1-inch (25.4 mm) long galvanized ring-shank nails with a 1-inch (25.4 mm) diameter and 0.125-inch-thick (3.18 mm) plastic cap spaced at maximum of 24 inches (610 mm) on center. The water-resistive barrier must be covered with a minimum $^{3}/_{8}$-inch-thick one-coat stucco system recognized in a current ICC-ES evaluation report.

4.4.2 Two-Ply Hydro Tex D:

Two-Ply Hydro Tex D has drainage efficiency rating of 90 percent or more as determined in accordance with ASTM E2773 when installed in an exterior wall assembly that consists of $^{15}/_{32}$-inch (12 mm) thick Exposure 1 oriented strand board (OSB) sheathing applied to wood studs spaced a maximum of 16 inches (406 mm) on center and fastened in accordance with the requirements of IBC Chapter 23 or IRC Chapter 6. Vertical board edges must butt over studs. Two-Ply Hydro D must be applied as described in Section 4.1. Minimum 1-inch-thick (25.4 mm) flat faced Type 1 expanded polystyrene (EPS) foam plastic insulation boards, described in a current ICC-ES evaluation report as complying with ASTM C578, must be positioned over the Two-Ply Hydro Tex D wrap and fastened to the sheathing along the edges of the EPS insulation boards and midway between the horizontal edges of the EPS insulation boards using Wind-Lock #7 x 1-$^{5}/_{8}$-inch (41 mm) long (41 mm) dual threaded screws with Wind-Lock 2-inch (51 mm) diameter plastic washer (Part # GWLMT-1). The Wind-Lock fasteners must be spaced a maximum of 9 inches (229 mm) on center vertically starting 3 inches (76 mm) up from the bottom of the wall assembly and 16 inches (406 mm) on center horizontally starting 5 inches (127 mm) from one side of the wall assembly. The exterior wall covering must be applied over the EPS foam plastic insulation boards as specified in the applicable code or current ICC-ES evaluation report for the exterior wall covering.

5.0 CONDITIONS OF USE:

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

5.2 The water-resistive barriers must be covered with an approved exterior wall covering.

5.3 The air permeance noted in Section 3.4 is for WeatherSmart used as an air barrier material only. The design and evaluation of an air barrier assembly, with WeatherSmart as a component, is outside the scope of this report.

5.4 The products 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), dated August 2016 (editorially revised June 2024).

6.2 Reports of testing in accordance with ASTM E84.

6.3 Reports of testing in accordance with ASTM E2178.

6.4 Report of testing for Two-Ply Hydro Tex and Two Ply Hydro Tex D in accordance with ASTM E2773.

7.0 IDENTIFICATION

7.1 The ICC-ES mark of conformity, electronic labeling, or the evaluation report number (ICC-ES ESR-1027) along with the name, registered trademark, or registered logo of the report holder must be included in the product label.

7.2 In addition, the water-resistive barriers described in this report are identified on one side, at regular intervals, with the product name, the Henry a Carlisle Company name and website address, and the evaluation report number (ESR-1027).

7.3 The report holder's contact information is the following:

HENRY A CARLISLE COMPANY
336 COLD STREAM ROAD
KIMBERTON, PENNSYLVANIA 19442
(310) 955-9200
www.henry.com
productsupport@henry.com