

Issue Date: 02-24-2021
Revision Date: 06-07-2021
Renewal Date: 02-28-2022

DIVISION: 07 00 00 – THERMAL AND MOISTURE PROTECTION
Section: 07 18 13 – Pedestrian Traffic Coatings
Section: 07 54 00 – Thermoplastic Membrane Roofing

REPORT HOLDER:
Skyline Building System Inc.
261185 Wagon Wheel Way
Rocky View County, AB T4A 0E2
Tel. No. (403) 250-5507
dec-tec.com/membranes

REPORT SUBJECT:
Dec-Tec™ Membranes - Classic and Coolstep Lines

1.0 SCOPE OF EVALUATION

1.1 This Research Report addresses compliance with the following Codes:

- 2021 and 2018 *International Building Code*® (IBC)
- 2021 and 2018 *International Residential Code*® (IRC)
- 2020 *Florida Building Code* (including High-Velocity Hurricane Zones) (see Section 9.0)
- 2015 *National Building Code of Canada* (NBC) (See Section 9.0)

NOTE: This report references the Code sections from the most current Code version. Earlier versions of the Codes may have different section numbers.

1.2 Dec-Tec™ Membranes have been evaluated for the following properties (see Table 1):

- Physical properties
- Wind resistance
- Fire classification

1.3 Dec-Tec™ Membranes have been evaluated for the following uses (see Table 1):

- Walking surface applied to wood and concrete deck substrates
- Class A fire classification when applied to noncombustible decks (refer to Table 3)

- Class A fire classification when applied to combustible decks with noncombustible substrates (refer to Table 3)
- Class C fire classification when applied to combustible decks (refer to Table 3)

2.0 STATEMENT OF COMPLIANCE

Dec-Tec™ Membranes comply with the Codes listed in Section 1.1, for the properties stated in Section 1.2, and the uses stated in Section 1.3, when installed as described in this report, including the Conditions of Use stated in Section 6.0.

3.0 DESCRIPTION

3.1 Dec-Tec™ Membranes: Dec-Tec Membranes are nominal 60 and 80 mil PVC membranes with integral fiberglass mat reinforcement. The membranes are used in adhered applications for balconies and roof top decks. The membranes are available in Classic and Coolstep colors/print patterns. Master rolls are 76 in. x 600 ft.

3.2 Dec-Tec™ Adhesives:

3.2.1 WBA 100 Water Based Adhesive: Water based acrylic latex for wet lay of membrane into adhesive. Single sided application to porous substrates using 1/16 in. x 3/32 in. V-notched trowel. Coverage: 300 to 390 sq. ft. per 2.63 gallon pail.

3.2.2 SBA 100R Solvent Based Adhesive: Solvent based adhesive for mating the membrane to the substrate. Double sided application to substrate and back side of membrane. Roller applied. Coverage: 50 to 60 sq. ft. per gallon.

3.2.3 SBA 200VC Solvent Based Adhesive: Solvent based adhesive for mating the membrane to the substrate. Double sided application to target area (substrate) and back side of membrane. Roller applied. Coverage: 50 to 60 sq. ft. per gallon.



4.0 PERFORMANCE CHARACTERISTICS

4.1 Physical Properties: The physical properties of the Dec-Tec™ Membranes have been evaluated to ASTM D4434 and CAN/CGSB-37.54-95, and are in compliance with IBC Sections 1504.6 and 1507.13, IRC Section R905.13, and NBC Division B, Part 3, Article 3.1.15.1, Sentence 3.1.15.2(1), Division B, Part 9, Article 9.26.2.1.

4.2 Wind Resistance: The wind uplift resistance of the Dec-Tec™ Membranes, when installed in accordance with Section 5.0 of this report, is described in Table 2.

4.3 Impact Resistance: Impact resistance of the Dec-Tec™ Membranes installed on low-slope roofs (roof slope less than 2:12) comply with the "Resistance to Foot Traffic Test" in Section 5.5 of FM4470, as required in IBC Section 1507.

4.4 Fire Classification: The Dec-Tec™ Membranes have been tested in accordance with ASTM E108 and have roof classifications as described in Table 3.

5.0 INSTALLATION

5.1 General: Dec-Tec™ Membranes must be installed in accordance with the manufacturer's published installation instructions, the applicable Code, and this Research Report. A copy of the manufacturer's instructions must be available on the jobsite during installation.

Substrates must be structurally sound and in accordance with the applicable Code. Surfaces shall be dry and free from all debris, with installation being limited to time periods where precipitation is not expected.

Adhesives are applied in accordance with manufacturer's installation instructions.

Metal flashing shall be installed in accordance with the applicable Code and must be applied to all door thresholds, jambs, fascia, and walls.

The membrane sheets are installed with a minimum 2 in. overlap and fused together with an approved thermal heat welder. A silicone rubber hand roller is used to bond the overlapping seam of the two surfaces together.

The Dec-Tec™ Membranes must be installed in accordance with the manufacturer's instructions using one of the adhesives identified in Section 3.0.

Repairs to the membrane require that the damaged section of membrane be cut out and removed. Application of a repair membrane patch to proceed following the installation requirements in Section 5.0.

6.0 CONDITIONS OF USE

6.1 Installation must comply with this Research Report, the manufacturer's published installation instructions, and the applicable Code. In the event of a conflict, this report governs.

6.2 Installation of the Dec-Tec™ Membranes as a walking deck is limited to a walking surface having a minimum slope of 1/4:12.

6.3 Use of the Dec-Tec™ Membranes as a Class A or Class C roof installation is limited to the assemblies described in Table 3 with a slope of 1/4:12.

6.4 Wind uplift pressure on any roof area, including edge and corner zones, must not exceed the allowable wind uplift pressure stated in Section 4.2.

6.5 The Dec-Tec™ Membranes are manufactured under a quality control program with inspections by Intertek Testing Services NA, Inc.

7.0 SUPPORTING EVIDENCE

7.1 Reports of tests in accordance with ASTM D4434-12 and CAN/CGSB-37.54-95.

7.2 Roof fire classification in accordance with ASTM E108-16, Standard Test Methods for Fire Tests of Roof Coverings.

7.3 Data in accordance with the ICC-ES AC39, Acceptance Criteria for Walking Decks, Approved June 2017, and AC75, Acceptance Criteria for Roofing Membrane Roof-Covering Systems, Approved July 2010, editorially revised March 2018.





7.4 Data in accordance with Miami-Dade Checklist #0095 Rev 09/01/12 For the Approval Of: Waterproofing Roof System.

7.5 Data in accordance with TAS 110 and TAS 114.

7.6 Intertek Listing Report "Dec-Tec™ Membranes", on the [Intertek Directory of Building Products](#).

8.0 IDENTIFICATION

The Dec-Tec™ Membranes are identified with the manufacturer's name (Skyline Building Systems), address and telephone number, the product name (Dec-Tec™ Membranes - Classic and Coolstep Lines), the Intertek Mark as shown below, and the Code Compliance Research Report number (CCRR-0405).



9.0 OTHER CODES

9.1 Florida Building Code:

9.1.1 Scope of Evaluation: The Dec-Tec™ Membranes were evaluated for compliance with the 2020 *Florida Building Code - Building, Florida Building Code - Residential, and Florida Building Code - Energy Conservation, including High Velocity Hurricane Zones.*

9.1.2 Conclusion: The Dec-Tec™ Membranes, described in Sections 2.0 through 8.0 of this Research Report, comply with the requirements of Sections 1504.3, 1504.6, 1505, and 1507.13 of the 2020 *Florida Building Code - Building, and Sections R902 and R904 of the 2020 Florida Building Code - Residential, subject to the following conditions:*

- Fasteners used for installation in compliance to 2020 *Florida Building Code - Residential* must meet the requirements of Section R904.5
- Intertek is an approved evaluation entity and quality assurance entity pursuant to Florida Statute 553.842 – *Product Evaluation and Approval*

9.2 National Building Code of Canada:

9.2.1 Scope of Evaluation: The Dec-Tec™ Membranes have been evaluated for compliance with the 2015 *National Building Code of Canada.*

9.2.2 Conclusion: The Dec-Tec™ Membranes, described in Sections 2.0 through 8.0 of this Research Report, comply with the requirements of Division B, Part 3, Article 3.1.15.1, Sentence 3.1.15.2(1), Division B, Part 9, Article 9.26.2.1. of the 2015 *National Building Code of Canada.* Installation in buildings governed by Part 9 as defined in the NBC is to be in accordance with the provisions of Division B, Part 9, Article 9.26.16.1.

10.0 CODE COMPLIANCE RESEARCH REPORT USE

10.1 Approval of building products and/or materials can only be granted by a building official having legal authority in the specific jurisdiction where approval is sought.

10.2 Code Compliance Research Reports shall not be used in any manner that implies an endorsement of the product by Intertek.

10.3 Reference to the <https://bpdirectory.intertek.com> is recommended to ascertain the current version and status of this report.

This Code Compliance Research Report ("Report") is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Report. Only the Client is authorized to permit copying or distribution of this Report and then only in its entirety, and the Client shall not use the Report in a misleading manner. Client further agrees and understands that reliance upon the Report is limited to the representations made therein. The Report is not an endorsement or recommendation for use of the subject and/or product described herein. This Report is not the Intertek Listing Report covering the subject product and utilized for Intertek Certification and this Report does not represent authorization for the use of any Intertek certification marks. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.





TABLE 1 - PROPERTIES EVALUATED

PROPERTY	2021 IBC	2021 IRC	2020 FBC – Building	2020 FBC – Residential
Physical Properties	1504.6, 1507.13	R904, R905.13	1504.6, 1507.13, 1515.1.4, 1515.2.4, 1519.16	R904, R905.13
Wind Resistance	1504.3	R905.1	1504.3 1515.1.1	R905.1
Fire Classification	1505	R902	1505	R902

Section numbers may be different for earlier versions of the International and Florida Codes.

TABLE 1B – PROPERTIES EVALUATED (CANADA)

Property	2015 NBC, Division B
Physical Properties	9.26.2.1.
Fire Classification	3.1.15.1, 3.1.15.2(1)

TABLE 2 – WIND UPLIFT RESISTANCE

System	Deck	Roof Covering	Adhesives ²	Allowable Wind Uplift (psf)
1	Plywood; Min. 5/8 in. thick ¹	Dec-Tec™ Membrane	SBA 200VC SBA 100R WBA 100	90 ³

¹The joints of the plywood decks must be sealed in accordance with the manufacturer's installation instructions.

²The application rate of the adhesives must be as specified by Sections 3.2.1, 3.2.2, and 3.2.3 of this Report.

³The allowable wind uplift is based on a safety factor of 2 applied to the ultimate test load.

TABLE 3 – FIRE CLASSIFICATION

System	Deck	Substrate	Adhesives ²	Roof Covering	Slope	Classification
1	AC Grade Plywood; Min. 5/8 in. thick ¹	None	SBA 200VC SBA 100R WBA 100	Dec-Tec™ Membrane	1/4:12, max	Class C
	AC Grade Plywood; Min. 5/8 in. thick ¹	Cement Board cover board; Min. 1/2 in. thick	SBA 200VC SBA 100R WBA 100	Dec-Tec™ Membrane	1/4:12, max	Class A
2	Concrete	None	SBA 200VC SBA 100R WBA 100	Dec-Tec™ Membrane	1/4:12, max	Class A

¹The joints of the plywood decks must be sealed in accordance with the manufacturer's installation instructions.

²The application rate of the adhesives must be as specified by Sections 3.2.1, 3.2.2, and 3.2.3 of this Report.

