*SITURA Waterproof Expansion Joints Technical Manual*

**SHORT FORM SPECIFICATION: Specification for a RedLINE Application to a**

**Thermoplastic (PVC/TPO) Single Ply Membrane**

***Note:*** *This short form specification for the installation of a RedLINE joint can also be used as a tie-in waterproofing material between an asphalt-based membrane and a thermoplastic (PVC/TPO) single ply membrane.*

**PART 1 GENERAL**

1.01 SCOPE OF WORK

A. Provide factory fabricated elastomeric expansion waterproofing joint, to prevent the pen- etration of water at control, expansion or building joints as indicated on architect’s/engi- neer’s drawings, in new or retrofit installations. All items in this section shall be furnished by, and be the responsibility of, the roofing/waterproofing contractor.

1.02 SUBMITTALS

A. Submit product data under the applicable provisions of Section 01300.

B. Submit manufacturer’s installation instructions, product literature and specifications.

C. Submit to tie in joint manufacturer drawings indicating location of tie in and configuration.

1.04 DELIVERY, STORAGE AND HANDLING

A. Deliver products to site under provisions of Section 01600 and 01650.

B. Store and protect products under provisions of Section 01600 and 01660.

C. Store products in accordance with manufacturer’s instructions in weather protected envi- ronment, clear of ground and moisture.

D. Keep the RedLINE joint material dry and free of debris or contaminants.

**PART 2 PRODUCTS**

2.01 DESCRIPTION

A. Provide flat, vulcanized waterproofing joint integral with the waterproofing membrane to accommodate movements up to: ± 1" [ ± 25 mm] / ± 2" [ ± 50 mm] / ± 4" [ ± 100 mm] / ± 10" [ ± 240 mm] capable of 500% elongation at - 40 °F [- 40 °C] across its length and at all vulcanized points.

B. All details and connections are factory fabricated by means of vulcanization.

C. Joint material is to be RedLINE [20], [20G], [40], [40G], [100], [240] waterproof expansion joint as supplied by SITURA INC., 1-888-474-8872.

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2.02 MATERIAL CHARACTERISTICS

A. RedLINE material is an extruded elastomer with polyester fleece embedded on both sides (top and bottom surfaces. It is resistant to the effects of UV, ozone, high temperatures, and chemicals such as; alkalis, acids, saline solutions, alcohol and ketones. The high quality and purity of the elastomer makes vulcanization of the RedLINE joint possible. Vulcanization allows the construction of details around unique shapes without the use of glue, caulking or tape.

2.03 MATERIAL

A. Appearance

1. Color: Orange-red with white fleece edging on the selvage edge.

B. RedLINE expansion joint waterproofing system as supplied by SITURA INC., 1-888-4-SITURA (1-888-474-8872).

2.04 ADHESIVE MATERIAL

A. Use a self-curing structural adhesive / fluid-applied waterproofing membrane as approved by single-ply membrane manufacturer.

**PART 3 EXECUTION**

3.01 INSTALLATION GENERAL

A. Install components in accordance with manufacturer’s installation instructions and con- ventional roofing/waterproofing practices.

B. Coordinate the installation of components of this section with the installation of the roofing membrane.

C. Coordinate the completion of flashing in and stripping the RedLINE joint material as work progresses with the work of this section to ensure watertightness.

D. The uninstalled RedLINE joint material must be protected and kept dry and clean at

 all times.

3.02 RedLINE JOINT THERMOPLASTIC MEMBRANE INSTALLATION

A. Identify the location of the expansion joint. Roll out the RedLINE and allow it to relax prior to application. Make sure that the substrate is clean and free of debris. Align the RedLINE joint with the center of the expansion joint gap, in such a manner that the fleeced flanges are over the thermoset roof membrane on both sides.

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B. Fold back the RedLINE joint on itself and prepare the thermoplastic membrane in accor- dance to the thermoplastic membrane manufacturer’s requirements. Once the thermo- plastic roof membrane has been cleaned, primed and allowed to dry, carefully apply the structural grade adhesive or fluid-applied membrane to the thermoplastic membrane and the fleece on the underside of the RedLINE. Ensure that the RedLINE fleece is fully saturated before proceeding. Then, carefully fold the RedLINE selvage edge onto the surface of the thermoplastic membrane and apply pressure by hand, this action must be followed by applying pressure using a metal roller. This action ensures the proper adhesion of the RedLINE to the thermoplastic roof membrane.

C. A termination bar may be required to further secure the RedLINE joint to the substrate; refer to project specific details. The termination bar must be secured with flat head fasteners and subsequently flashed in with a compatible thermoset membrane stripping ply.

D. Finally, flash-in the top of the RedLINE fleece to the thermoset membrane following the manufacturer’s project specific details.

3.03 RedLINE JOINT TIE-IN TO ASPHALTIC ROOF (WHEN USED AS A TIE-IN MATERIAL)

A. Adhere the RedLINE joint polyester fleece flange so that it shall be firmly and uniformly set, without voids, into the hot asphalt (within 25 °F [14 °C] of the EVT rating indicated on bitumen container label.) At all times observe the bitumen/asphalt manufacturer’s recommendations. The RedLINE fleece must be completely encapsulated in the hot asphalt/bitumen/coal tar pitch.

B. Apply the stripping plies smooth, free from air pockets, wrinkles, fishmouths, or tears. Coat the top surface of the RedLINE fleece with hot asphalt/bitumen/coal tar pitch. Install each stripping ply, shingle lap fashion, onto the RedLINE edged polyester fleece firmly and uni- formly, without voids, into the hot asphalt (within 25 °F [14 °C] of the EVT rating indicated on bitumen container label.) The RedLINE fleece must be completely encapsulated in the hot asphalt/bitumen/coal tar pitch.

C. Additional protection to the RedLINE Tie-in joint is optional but can be provided by means of a protection board, pavers, metal flashings, etc… Refer to the project specific details for more information.

**END OF SECTION**

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