ZIP System® Sheathing and Tape Code Compliance for a Sealed Roof Deck in Florida

In roof applications, ZIP System® sheathing is a combination wood structural panel and roofing underlayment. It is code recognized by International Building Code and International Residential Code as an alternative to roofing underlayment (felt paper) required by code when panel seams are taped with ZIP System™ flashing tape. ZIP System® panels conform to the requirements of DOC PS2, *Performance Standard for Wood-Based Structural-Use Panel.* PS2 encompasses performance requirements, qualification procedures, and test methods for wood-based structural-use panels such as plywood and OSB. The ZIP System® sheathing OSB substrate is a wood structural panel and satisfies the performance requirements outlined in the IBC and IRC for wood sheathing. ZIP System® sheathing is available in 7/16", 1/2", and 5/8" thicknesses with 24/16, 32/16, and 40/20 span ratings, respectively.

Florida Building Code Compliance

ZIP System® sheathing panels are installed with a proprietary seam tape, which allows the system to be used as an alternate to the underlayment required in Chapter 9 of the Florida Building Code as stated in ICC-ES ESR-1473. The Florida Product Approval Number for ZIP System® sheathing in a roof application is FL-17146. ZIP System® sheathing panel seams should be sealed with ZIP System™ flashing tape, and all flashings and penetrations should be flashed with ZIP System™ flashing tape, ZIP System™ stretch tape or with another code-recognized flashing material.

Compliance as a Sealed Roof Deck

ZIP System™ flashing tape is a minimum 3.75" wide self-adhered flexible flashing tape complying with AAMA 711 and AC 148, and shall be installed over all panel seams, or "joints", of the ZIP System® sheathing roof deck in order to meet our manufacturer requirements. This meets the requirements of the 2020 Florida Building Code Section R905.1.1.1, Item 3 to achieve a sealed roof deck. Though this section states that a layer of underlayment shall be installed over the taped roof deck, this is not required with ZIP System® sheathing because the panels and tape are also compliant as a code-recognized underlayment alternative.

Drip Edge Transition

Florida Building Code and the Roof Application Standard RAS-115 require drip edge to be installed at eaves and gables for asphalt shingle roofs. Under this requirement, drip edge can either be installed above or below the underlayment. The following described drip edge transitions are provided to assist in the installation of ZIP System® product(s) but are not required and may not apply to every situation.

1. When ZIP System™ flashing tape or self-adhered flashing meeting AAMA 711 is used to seal the transition from ZIP System® sheathing to drip edge, the drip edge is considered to be under the underlayment (Image 1).
2. If the drip edge is not taped, please refer to the requirements stated in RAS 115 Section 6.1, FBC-Residential Section R905.2.8.5, FBC Section 1507.2.9.2, (Image 2).
3. Other detail approved by the designer of record or authority having jurisdiction

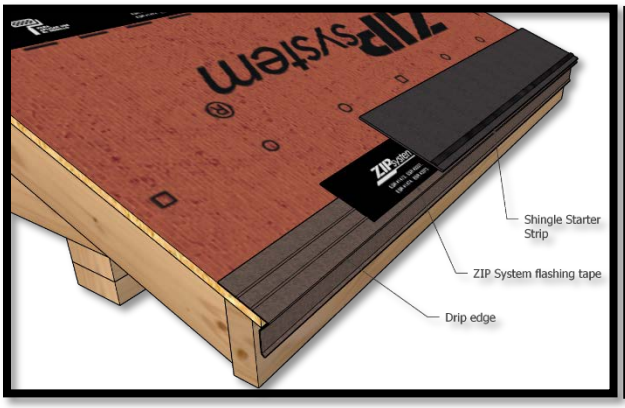

Image 1: Drip Edge flashed with ZIP System flashing tape

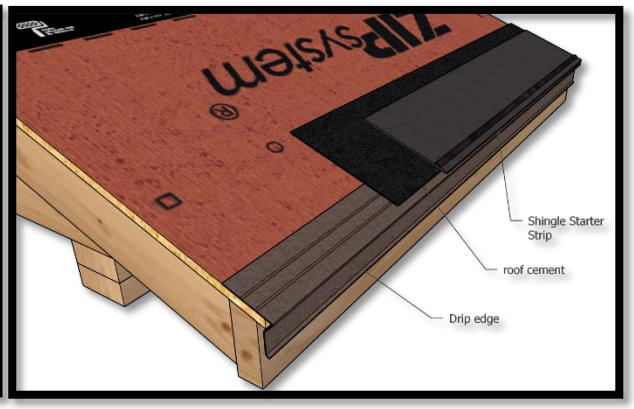

Image 2: Drip Edge flashed with roof cement

Compliance with Structural Requirements by Wind Zone

The 2020 Florida Building Code has adjusted minimum prescriptive roof sheathing requirements by wind speed and exposure. Below, Table 1 summarizes those requirements. Note, regardless of wind speed, exposure, or panel thickness, the maximum rafter/truss spacing is 24” o.c.

Rafter/Truss Spacing 24 in. o.c.	Wind Speed							
	115 mph	120 mph	130 mph	140 mph	150 mph	160 mph	170 mph	180 mph
Minimum Sheathing Thickness, Inches (Panel Span Rating) **Exposure B**	7/16 (24/16)	7/16 (24/16)	7/16 (24/16)	7/16 (24/16)	15/32 (32/16)	19/32 (40/20)	19/32 (40/20)	19/32 (40/20)
Minimum Sheathing Thickness, Inches (Panel Span Rating) **Exposure C**	7/16 (24/16)	7/16 (24/16)	15/32 (32/16)	19/32 (40/20)	19/32 (40/20)	19/32 (40/20)	19/32 (40/20)	23/32 (48/24)
Minimum Sheathing Thickness, Inches (Panel Span Rating) **Exposure D**	15/32 (32/16)	19/32 (40/20)	19/32 (40/20)	19/32 (40/20)	19/32 (40/20)	19/32 (40/20)	23/32 (48/24)	23/32 (48/24)

Table 1: R803.2.2 Minimum Roof Sheathing Thickness

ZIP System® sheathing is available in 7/16", 1/2", and 5/8" thicknesses with 24/16, 32/16, and 40/20 span ratings, respectively. Below is the same table from the Florida Building Code with the minimum thickness of ZIP System® sheathing used for each wind speed and exposure.

Rafter/Truss Spacing 24 in. o.c.	Wind Speed							
	115 mph	120 mph	130 mph	140 mph	150 mph	160 mph	170 mph	180 mph
Minimum Sheathing Thickness, Inches (Panel Span Rating) **Exposure B**	7/16	7/16	7/16	7/16	1/2	5/8	5/8	5/8
Minimum Sheathing Thickness, Inches (Panel Span Rating) **Exposure C**	7/16	7/16	1/2	5/8	5/8	5/8	5/8	
Minimum Sheathing Thickness, Inches (Panel Span Rating) **Exposure D**	1/2	5/8	5/8	5/8	5/8	5/8		

Table 2: Minimum ZIP System sheathing thickness

When designing a roof using an engineered method, ZIP System® sheathing provides the same structural capacities as a DOC-PS2 compliant OSB wood structural panel of the same span rating.

FORTIFIED Home™ - Hurricane – *A program of IBHS*

The FORTIFIED Home™ program published by the Insurance Institute for Business & Home Safety (IBHS) addresses effective methods to improve roof deck performance in high wind and rain applications. This program has been adapted into building code in several states. In Method 2 (Tape Seams Between Roof Deck Wood Structural Panels), the program addresses flashing tape as follows:

> *Apply a 4-inch wide ASTM D1970 compliant self-adhering polymer-modified bitumen flashing tape or a 3-3/4 inch wide AAMA 711-13, Level 3 (for exposure up to 80°C/176°F) compliant self-adhering flexible flashing tape to seal all horizontal and vertical joints in the roof deck.*

ZIP System™ flashing tape is a pressure-sensitive, self-adhering, cold-applied flexible flashing tape consisting of a polyolefin film with an acrylic adhesive that is approved in roof seam flashing and penetration flashing applications. ZIP System™ flashing tape meets AAMA 711-13, Level 3 criteria through Acceptance Criteria (AC) 148, as stated in ICC-ES 2227. Therefore, ZIP System™ flashing tape conforms to the methods prescribed in the FORTIFIED Home™ programs.

Please visit huberwood.com or contact our technical department at 800-933-9220 Ext 2716 or at techquestions@huber.com with any questions or comments.