Overdriven Fasteners in ZIP System® Roof and Wall Sheathing

Nails or other code recognized fasteners used to attach ZIP System products to supporting framing members may occasionally penetrate beyond the face of the ZIP System panels. An ideal installation would be where fastener heads are flush with the panel surface. However, we recognize that due to variations in materials and limitations on equipment, this may be difficult to achieve in some situations. For this correspondence, "Overdriven Fasteners," are considered fasteners that are installed through the panel and into a framing member, like a wall stud or rafter, with the fastener head penetrating the integrated moisture barrier.

ZIP System roof is code recognized in ICC-ES ESR-1473 as a combination roof sheathing and roof underlayment. ZIP System wall is code-recognized in ICC-ES ESR-1474 as a combination wall sheathing, air barrier and water-resistive barrier. One of the tests required of both systems by ICC-ES was ASTM E331, *Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.* No visible water leakage at nail penetrations was observed during this test. We have also used this test to verify that over-driven fasteners do not compromise the water resistance of the system. It is not required to tape over overdriven fasteners unless the fastener head creates a hole all the way through the panel. Fasteners that have blown through the entire thickness of the sheathing panel leaving a hole are not considered viable and should be taped over with ZIP System® tape. ZIP System panels that are attached with over-driven fasteners will not void the ZIP System warranty.

Although overdriving a fastener does not affect ZIP System products' ability to resist moisture, it may reduce the shear capacity of the fastener. Overdriven fasteners can reduce the amount of wind or earthquake loading a shear wall is designed to resist. This possible reduction in shear capacity is inherent with all diaphragms and shear walls constructed with structural OSB or plywood and is NOT specific to ZIP System products.

Please refer to technical bulletins published by APA and TECO at www.apawood.org and www.tecotested.com for more information about reduced shear capacity due to overdriven fasteners. Consult you local building jurisdiction or design professional for any additional nailing that may be required due to overdriven fasteners.

Please contact Huber Engineered Woods at 800-933-9220 with any questions or comments.

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