

LP® OSB Sheathing and Roof Decking in Hurricane Zones

Galveston City Council and APA – The Engineered Wood Association

LP® OSB Sheathing and Roof Decking Approved for Use in Hurricane-Prone Areas

SUMMARY

Along the coast and in hurricane zones, homebuilders have unique concerns about the quality of their building materials, such as the ability of fasteners to stay in place in winds up to 150 miles per hour. These concerns add a new dimension to the debate over which is better, plywood or OSB. The city of Galveston, Texas, recently jumped into the debate, bringing the matter to an official vote before the city council.

OBJECTIVES

In particular, the Galveston City Council wanted to know which material was best for roof decking and exterior wall sheathing in a hurricane zone. Additionally, council members were concerned about the ecological impact of the manufacturing of each product. To get straight answers from an unbiased source, the council turned to APA – The Engineered Wood Association, which represents manufacturers on both sides of the debate – both plywood and OSB.

IMPLEMENTATION

The city council and Galveston Mayor Joe Jaworski hosted a 30-minute Q&A session, with senior APA engineer Bruce Cordova taking the bulk of the questions. Well armed with technical data to back his expert opinion, Cordova informed the council that “when used as intended, the two products are interchangeable” in roof decking and exterior wall sheathing. According to Cordova, it’s a fact that holds true even in hurricane-prone areas like Galveston,

“Even in hurricane-strength winds, the performance of OSB and plywood are virtually identical because they have been produced to meet the exact same performance requirements.”

Bruce Cordova, Senior Engineered Wood Specialist,
APA – The Engineered Wood Association

IN BRIEF

LOCATION

Galveston, Texas

PROJECT SUMMARY

The Galveston City Council held a unanimous vote on the safety and environmental sustainability of OSB and plywood building materials when used for roof decking and exterior wall sheathing in residential structures in a hurricane-prone area.

WEBSITE

www.apawood.org

www.cityofgalveston.org

PROJECT OBJECTIVES

- Evaluate the structural performance and nail withdrawal strength of OSB in a hurricane zone
- Ensure the interchangeability of OSB and plywood for roof decking and exterior wall sheathing
- Demonstrate the superior environmental attributes of OSB products

SOLUTION

APA – The Engineered Wood Association provided the Galveston City Council with expert analysis of both materials, backed up by extensive technical data from APA testing and other third-party evaluations. The result was a unanimous vote to approve the use of OSB for roof decking and exterior wall construction for Galveston homes.



which sits on an island along the Texas coast in the Gulf of Mexico.

“Both products, although different in composition and appearance, are manufactured according to a set of standards that have similar performance requirements,” said Cordova. “Those standards include fastener withdrawal and structural performance tests under wet and dry conditions. OSB products meet the same performance requirements of roof decks and exterior sheathing as plywood when properly designed and installed.”

Although the APA acknowledges that OSB can have greater thickness swelling in wet conditions than plywood when exposed to

prolonged moisture exposure, APA testing shows that this swelling does not affect panel structural performance in roof decking and exterior wall sheathing. Additional independent testing by Western Roofing shows that both OSB and plywood meet the same standards for nail withdrawal strength at 60 psf and 90 psf – even when soaked under running water for 24 hours, dried, then soaked under running water for another 24 hours.

The Galveston City Council was not only concerned about performance but also environmental sustainability. Rick Crawford from LP Building Products was able to provide

the mayor and the council members with an explanation of the environmental advantages of OSB – including third party-certified forestry practices, the use of young trees that are quickly replenished, and a manufacturing process that uses 100% of the log.

OUTCOME

The Galveston City Council voted unanimously to approve the use of OSB for roof decking and exterior wall sheathing for new home construction. Homebuilders working in the area can freely choose between OSB and plywood based on their own personal preference, comfort level, availability, pricing, professional relationships, or other reasons. In the eyes of the city and its building codes, the two materials are interchangeable.



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