

SPF Performance in Hurricanes

A Competitive Advantage

Experts Panel
Session 3B
Thursday 2/1 @ 10:15am
Room 201C



ANTITRUST POLICY STATEMENT FOR SPRAY POLYURETHANE FOAM ALLIANCE MEETINGS

- ▶ It is and shall remain the policy of the Spray Polyurethane Foam Alliance ("SPFA"), and it is the continuing responsibility of every SPFA member company, SPFA meeting or event participant, as well as SPFA staff and leadership to comply in all respects with federal and state antitrust laws. No activity or discussion at any SPFA meeting or other function may be engaged in for the purpose of bringing about any understanding or agreement among members to (1) raise, lower or stabilize prices; (2) regulate production; (3) allocate markets; (4) encourage boycotts; (5) foster unfair or deceptive trade practices; (6) assist in monopolization; or (7) in any way violate or give the appearance of violating federal or state antitrust laws.
- ▶ Any concerns or questions regarding the meaning or applicability of this policy, as well as any concerns regarding activities or discussions at SPFA meetings should be promptly brought to the attention of SPFA's Executive Director and/or its legal counsel.



EXPERTS PANEL

Introductions



Claudette Hanks Reichel, Ed.D.

Dr. Claudette Hanks Reichel is Professor and Extension Housing Specialist with Louisiana State University AgCenter. She serves as Director of LaHouse Resource Center, a public exhibit of multiple high performance housing solutions and hub of Extension education programs to advance resource-efficient, durable and healthy housing for the southern climate and natural hazards.

Reichel has developed numerous educational outreach programs relating to housing, including energy-efficiency, indoor air quality, hurricane and flood resilience and others. She has authored more than 100 Extension publications, presented at numerous professional events, was twice a featured speaker at the National Building Museum in Washington DC, and has received 12 national and state level awards for program excellence and impact.



EXPERTS PANEL

Introductions



Xuaco Pascual

Xuaco Pascual is a Marketing Manager for Honeywell with responsibility for Spray Foam Insulation and downstream applications. Xuaco holds a BS in Mechanical Engineering from Old Dominion University and brings over 20 years of experience in construction building envelope solutions focused on energy, moisture mitigation and sustainable practices. Prior to joining Honeywell in 2008, Xuaco held several business development and technical roles at DuPont, has been involved in the launch of over 50 new products and services, managed material research projects for NASA and is a U.S. NAVY submarine force veteran. Xuaco holds several patents in construction and consumer applications and has a diverse background in Building Sciences, product development, training, building envelope systems, mitigating construction quality issues and remediation.



EXPERTS PANEL

Introductions



Robb Smith

Robb Smith has been working in the roofing industry since 1980, and is a SPFA/PCP Field Examiner, Registered Roof Consultant, RRO, Fellow and past President of RCI of Raleigh, NC. He has been active in SPFA for over 25 years, serving on the PCP, Roofing and Consultant Committees. He was previously a Roofing and Siding Contractor in Nevada. As a RICOWI team member, Robb has investigated roof wind damage after Hurricanes Charley, Ivan and Katrina. Currently he resides in Reno, where he is owner of RGS



EXPERTS PANEL

Introductions



Rick Duncan, Ph.D., P.E.

Rick brings more than 20 years of experience in technical marketing, building science, and product development and product management to deliver new materials and applications to the construction market. Drawing from experience as an engineering professor, Rick simplifies complex building envelope issues and clearly describes solutions for construction and design professionals. As technical director for SPFA, he oversees several technical committees that develop technical documents for the SPF industry. As technical consultant for the Spray Foam Coalition includes advising their Research and Codes and Standards workgroups. He holds a Ph.D. in Engineering Science and Mechanics Penn State University, MSME from Bucknell University and a BSME from the University of Maryland. Rick is a Registered Professional Engineer in Pennsylvania and is a certified BPI Building Analyst.



EXPERTS PANEL

Rick Duncan, Moderator

- ▶ **Claudette** [LSU Guidance on 'Wash and Wear' construction]
- ▶ **Robb** [SPF Roofing Performance - RICOWI studies, wind and hail]
- ▶ **Xuaco** [Honeywell whitepapers, Wind Uplift and 2nd water barrier, Miami-Dade IBHS Fortified Homes]
- ▶ **Rick** [1990s racking studies, SPFA guidance 2017 for flood repair]



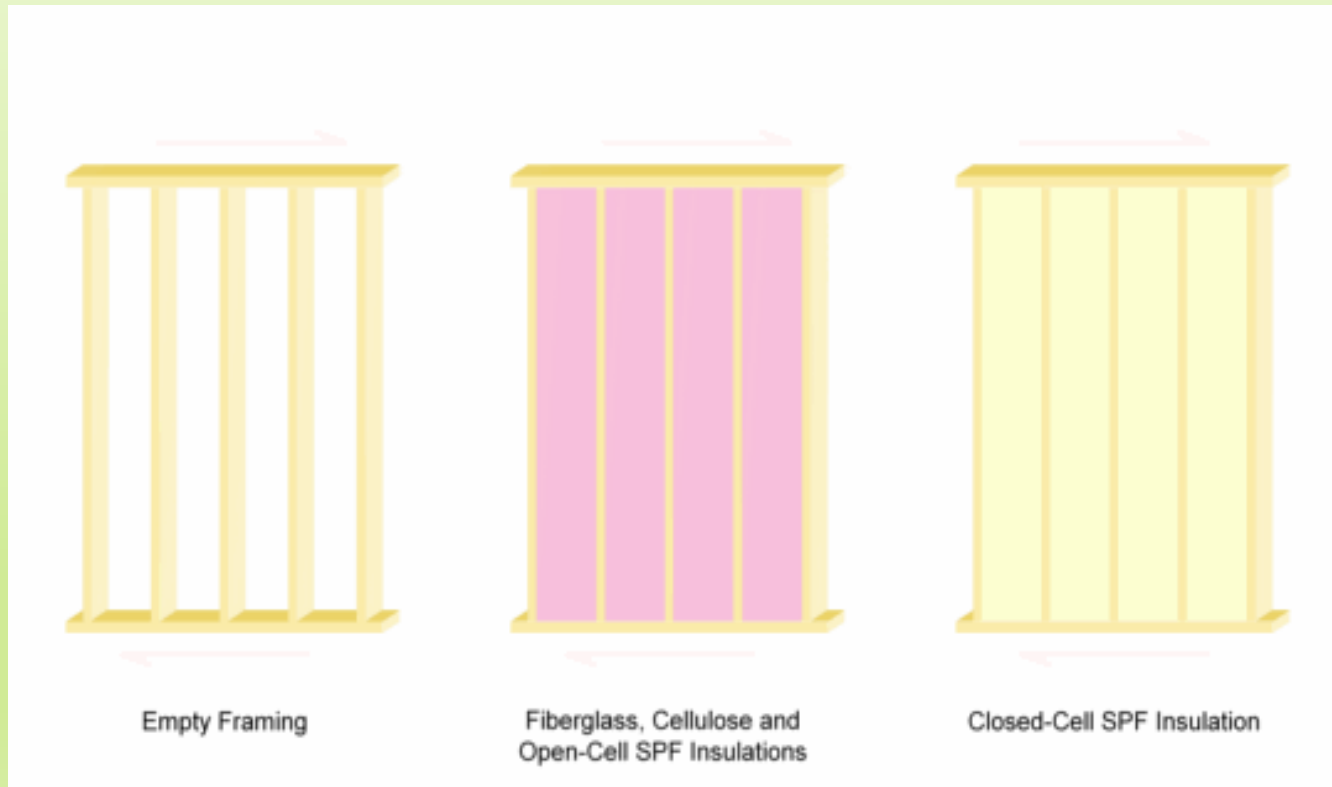
SPF Industry Research

- ▶ Honeywell, Huntsman and NCFI Wind Uplift Project with University of Florida



SPF Industry Research

- Several studies show closed-cell SPF increases racking strength of frame walls

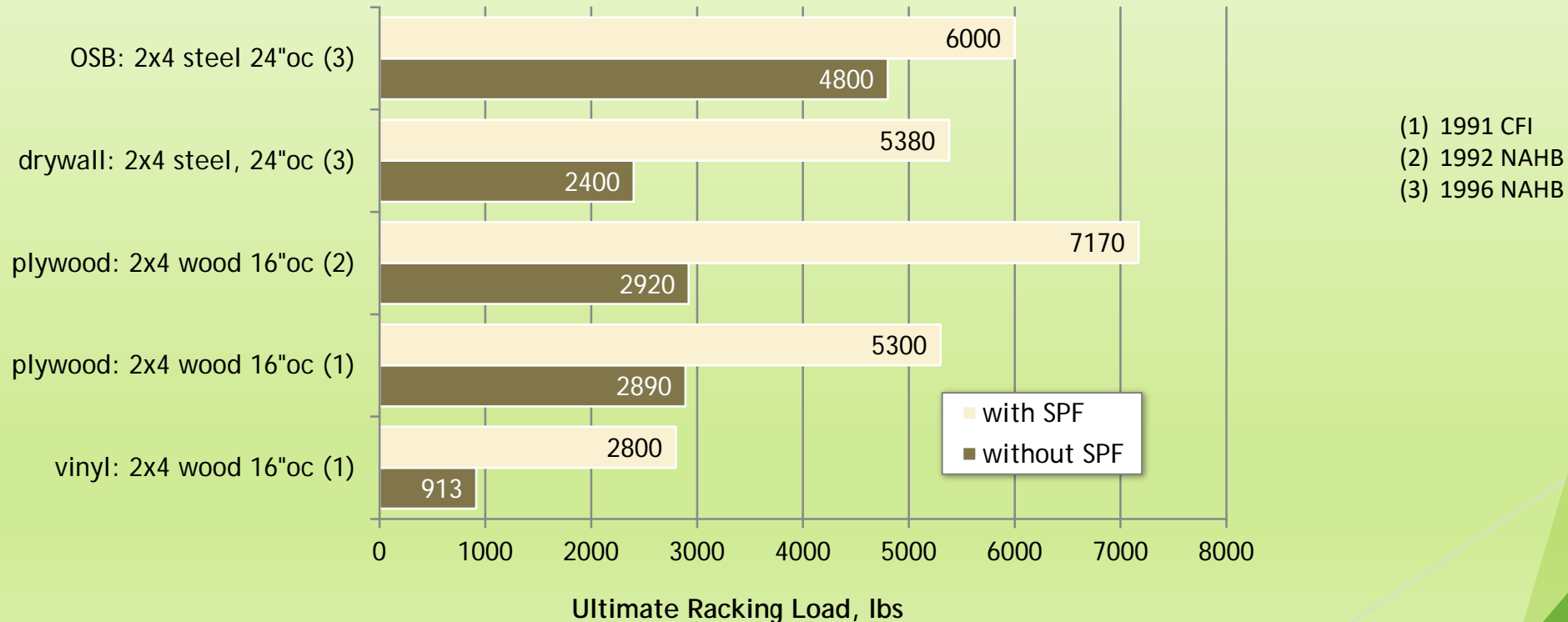


ASTM E72 Testing....



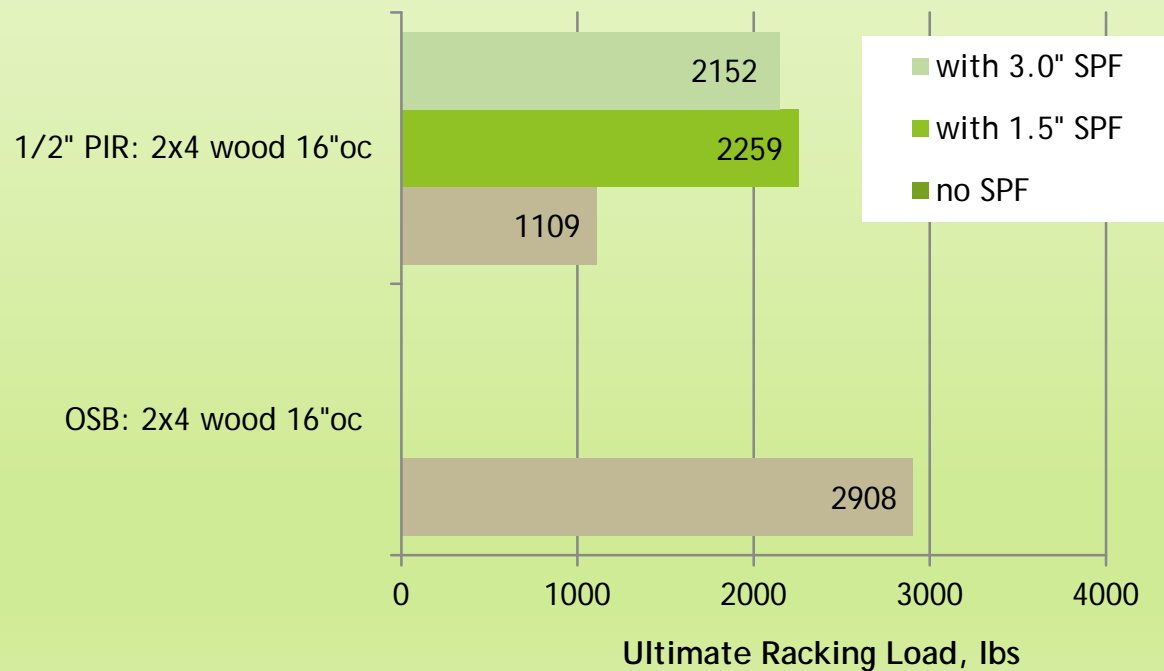
SPF Industry Research

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SPF Industry Research

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2007 ATI/SPFA



SPF Industry Research

- ▶ 2008-2009 study shows closed-cell SPF increases roof-deck uplift resistance

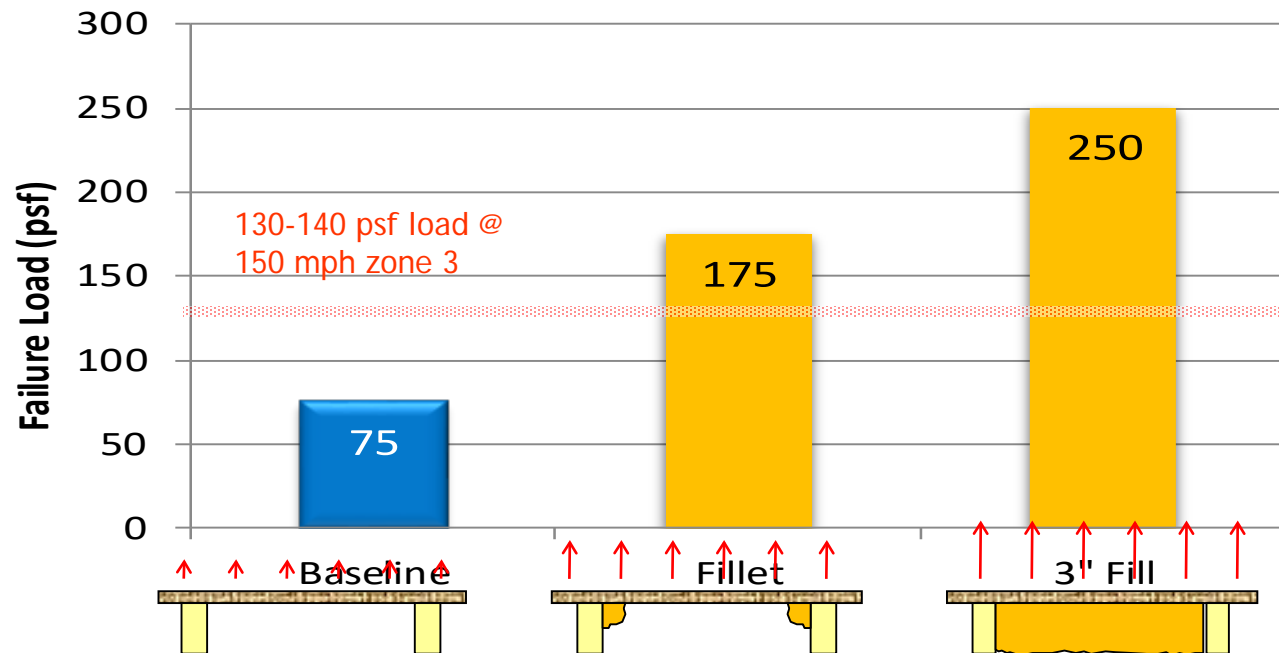


Houses with damaged or missing roof sheathing
in Florida



SPF Industry Research

- ▶ 2008-2009 study shows closed-cell SPF increases roof-deck uplift resistance



SPFA Publications

- ▶ SPFA publishes Flood-Resistant Construction Using Closed-Cell SPF TechTip November 4, 2017
 - ▶ “Emergency” document to help after 2017 hurricane season
 - ▶ Lists resources for remediation of flood damaged buildings
 - ▶ Rebuilding techniques to create flood-resistant walls designed to dry more quickly, with special emphasis on flood-resistant insulations such as closed-cell SPF
 - ▶ Applications of SPF to existing frame walls with brick façade

