Discussion Summary

Structural Insulated Panel Production In North America: 2014

for

Structural Insulated Panel Association
Ft. Lauderdale, FL

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Construction Products Marketing Associates, Inc.

Structural Insulated Panel Association

INTRODUCTION

Background on the Annual Production Survey of SIPs manufacture:

- Begun by CPMA in 2003 to track 2002 shipments – 13th year.
- Twenty SIPA member companies in 2002 – 18 companies today with 28 plants.
- Historically all relatively large (e.g., >300,000 square feet) companies respond.
- SIPA members account for an estimated 72% of the industry's shipments.
- Years prior to 2010 attempted to include metal-skinned panels but difficulty in categorizing structural and lack of cooperation led to a rethinking.
- Data now excludes all metal panels but does include cement board, plywood, drywall, and other composite skins.

2014 ESTIMATES

All SIPA members reported their 2014 production:

- 13.8 million square feet (mmsf), averaging $6.37/sf, 5.8% above 2013.
- Production of 12 companies grew, five declined and one flat.
- Twenty SIPA member companies in 2002 – 18 companies today with 28 plants.
- Important to note at least 18 plants shut down production in 2011 -- 2013.
- SIPA members account for an estimated 72% of the industry's shipments.
- Years prior to 2011 attempted to include metal-skinned panels but difficulty in categorizing them as structural and a lack of cooperation led to a rethinking.
- Data now excludes all metal panels but does include cement board, plywood, drywall, and other composite skins.

HOUSING STARTS

To Set the Stage for the Discussion

	U.S. Housing Starts: 2003-2014 (Thousands of Starts)					
	2014	**2013**	**2012**	**2011**	**2010**	**2009**
Single Family Starts	648	618	535	431	471	445
Multi-Family Starts	355	307	246	178	116	109
Total Starts	1,003	925	781	609	587	554
	2008	**2007**	**2006**	**2005**	**2004**	**2003**
Single Family Starts	622	1,046	1,466	1,716	1,611	1,499
Multi-Family Starts	283	309	335	352	345	349
Total Starts	905	1,355	1,801	2,068	1,956	1,848

2014 N.A. PRODUCTION (ESTIMATES)

SIP production in 2014 reached 18.9 million square feet

	North American Production of SIP Panels: 2003-2014 (Millions of Square Feet)					
	2014	**2013**	**2012**	**2011**	**2007**	**2003**
SIPA Members	13.8	13.0	12.7	13.4	10.1	19.8
Nonmembers of SIPA	5.2	5.0	5.9	6.6	NA*	NA*
Total Production	19.0	18.0	18.6	19.9	NA*	NA*
% Change, Previous Yr.	5.3%	-3.2%	-4.9%	-4.1%		

* NA: Data collection and reporting began excluding metal-skin panels in 2010.

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SIP PRODUCTION PER HOUSING START

SIPA member production per start peaked in 2011

	SIPA Member Production per Housing Start (Square Feet/Start)					
	2014	**2013**	**2012**	**2011**	**2007**	**2003**
Production (millions of sf)	13.8	13.0	12.7	13.4	10.1	19.8
Single Family Starts (thous.)	648	618	535	431	1,046	1,499
Production per Start	21.2	19.4	23.7	31.1	9.7	13.2

Note: Single-family used for comparison because 95% of SIPs are supplied for single family homes.

RESIDENTIAL VS. COMMERCIAL

Residential SIP production continues to be 58-60% of the total

	SIPA Member Production of SIP Panels: 2012-2014 Residential vs. Commercial					
	2014		2013		2012	
	MMSF	Percent	MMSF	Percent	MMSF	Percent
Residential	8.0	57.8%	7.9	60.4%	8.0	63.5%
Commercial	5.7	41.3	4.7	36.5	4.5	35.7
Non-Building	0.1	0.9	0.4	3.1	0.2	1.2
Total	13.8	100.0%	13.0	100.0%	12.7	100.0%

SIP PANEL SKINS

Two-Sides OSB is the predominant skin for SIP members

	SIPA Member Production of SIP Panels: 2012-2014 Type of Skin					
	2014		2013		2012	
	MMSF	Percent	MMSF	Percent	MMSF	Percent
OSB Two-Sides	11.7	85.2%	11.5	88.5%	10.9	86.1%
OSB One-Side	1.6	11.2	1.0	8.1	1.1	8.6
Plywood/Other*	0.5	3.6	0.5	0.4	0.7	5.3
Total	13.8	100.0%	13.0	100.0%	12.7	100.0%

* Includes smaller amounts of fiber cement, gypsum board and metal manufactured by companies predominantly in wood-based skins.

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WALLS, ROOFS AND FLOORS

Wall panels account for six out of ten SIP panels

	SIPA Member Production of Wall, Floor and Roof Panels (Residential): 2012-2014					
	2014		2013		2012	
	MMSF	Percent	MMSF	Percent	MMSF	Percent
Walls	4.9	61.4%	4.8	60.3%	10.9	56.4%
Roofs	0.3	3.2	2.9	36.9	1.1	39.9
Floors	2.8	35.4	0.2	2.8	0.7	3.7
Total	8.0	100.0%	7.9	100.0%	8.0	100.0%

WALLS, ROOFS AND FLOOR COMBINATIONS

Nearly one-half of all SIPA member panels are shipped in wall and roof combinations

	SIPA Member Production of Residential Combinations of Wall, Floor and Roof Panels: 2012-2014					
	2014		**2013**		**2012**	
	MMSF	Percent	MMSF	Percent	MMSF	Percent
Walls & Roofs	3.7	46.3%	3.7	46.6%	4.3	53.6%
Walls Only	1.9	23.9	1.9	24.7	1.9	23.9
Roofs Only	1.3	16.9	1.3	15.9	1.3	15.8
Walls, Roofs & Floors	0.4	4.6	0.4	5.5	0.4	5.2
Other Combinations	0.7	8.2	0.6	7.3	0.1	1.5
Total	8.0	100.0%	7.9	100.0%	8.0	100.0%

GEOGRAPHY OF SHIPMENTS

The key regions for SIP shipments are Mountain, East and West North Central, and West South Central

	SIPA Member Shipments by Census Region (excludes Canada and Off-Shore Shipments): 2014	
Region	States	Percent of Shipments
New England	ME, NH, VT, MA, CT, RI	10.9%
Mid-Atlantic	NY, NJ, PA	7.9
E. N. Central	MI, OH, IN, WI, IL	13.7
W.N. Central	ND, SD, MN, IA, MO, KS, NE	11.7
South Atlantic	FL, GA, NC, SC, VA, WV, DE, MD	9.2
E. S. Central	AL, MS, TN, KY	5.9
W. S. Central	TX, LA, AR, OK	11.3
Mountain	AZ, ID, CO ,NM, UT, MT, WY, NV	18.6
Pacific	WA, OR, CA, AK, HI	10.8
Total		100.0%

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CONCLUSIONS

QUESTIONS, COMMENTS, CONCERNS:

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THANKS!

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