

2019 SIPA Building Excellence Awards



Official Entry Form

APPLICATION DEADLINE: **January 11, 2019**

The Structural Insulated Panel Association (SIPA) is hosting the seventeenth annual Building Excellence Awards to recognize association members that build exemplary projects using structural insulated panels (SIPs). The competition allows SIPA members to showcase their best work while demonstrating the design flexibility, sustainability and energy efficiency possible with SIP construction.



**Structural Insulated
Panel Association**

**SelectSIPs
EXPO**  **2019**
A Better Way to Build

MARCH 4 – 6 / PHOENIX, ARIZONA

Winning entries will be showcased at the 2019 SIPA Annual Meeting and SelectSIPs EXPO.



Homes and commercial buildings completed between January 1, 2018 and December 31, 2018 are eligible.

Award Categories:

- High Performance (*any size or use category - judged only on special High Performance features or certifications*)
- Single Family 'Small House' under 900 sq. ft.
- Single Family Homes over 3,000 sq. ft.
- Single Family Homes under 3,000 sq. ft.
- Multifamily
- Agricultural
- Commercial/Industrial/Institutional Buildings under 10,000 sq. ft.
- Commercial/Industrial/Institutional Buildings over 10,000 sq. ft.
- Renovations (*residential or commercial, includes additions and retrofit insulated panels*)
- Affordable Housing (*excludes multifamily, home ownership cost must be at or below 30% of median income for location*)

Who is Eligible?

- The submitting company must be a current SIPA member in good standing
- Structural insulated panels must be used on a minimum of 50% of the building envelope, determined by square footage of exterior walls and roof
- The SIPs used on the project must be provided by a SIPA member manufacturer
- Installers, designers or other parties involved in the project who are not SIPA members will not be recognized in awards materials. However, builders or architects may apply for membership with their entry, but must be full members in good standing prior to the closing date for the entry to receive recognition.
- Project must be completed between January 1, 2018 and December 31, 2018

Winning Entries

- One winner will be chosen from each category. From the category winners, an Overall Competition Winner and a Runner-Up will be named.
- Judges may hand out Honorable Mentions at their discretion
- Winners will be recognized at the 2019 SIPA SelectSIPs EXPO (Annual Meeting) in Phoenix, Arizona, March 4-6, 2019.
- SIPA will promote the winning entries on the SIPA website and issue a press release to outside media

Guidelines

- Member companies may make multiple entries, but a separate entry form must be completed for each entry (except for same project also submitted to High Performance category)
- SIPA has the right to use the photos to promote SIPs to the construction industry. All entries will be displayed on the SIPA website.
- The deadline for entries is January 11, 2019. All entries must be received at the SIPA office on or before that date.

The following information and documentation is REQUIRED. Entries without the required items will not be considered.

- Completed and signed application
- A minimum of two photos showing different views of the completed project
- Photographs must be submitted in digital form and be at least 2400 x 3000 pixels, or 8" x 10" at 300 dpi
- Residential projects are encouraged to have a HERS Index calculated by a RESNET certified home energy rater. High Performance category projects must present a HERS Index with blower door data. Commercial High Performance projects must provide other documentation of energy efficiency.

Additional documentation is not required but is highly recommended to give the judges a clear picture of the project's overall design, sustainability, systems integration, and energy efficiency.

- Additional photos showing the construction process and SIP installation
- Documentation of energy efficiency, such as a HERS report, blower door test results, utility bill data, or infrared thermography
- A thorough description of energy-efficient technologies other than SIPs, as well as other innovative or sustainable features
- Comments from the building owners regarding their satisfaction with the building
- A floor plan of the project. A single page line drawing no larger than 17" x 22" in size is sufficient. Please do not send full blueprints.

Judging Criteria

Each entry will be judged on the following criteria:

- Design and structural engineering innovation
- Creative use of SIP construction
- Environmental sustainability

New High Performance Category criteria:

- Projects can compete both here and in specific building type category
- Only features pertaining to eco-efficiency, health, resilience, and renewable energy are considered here
- Energy efficiency (quantified by HERS Index, blower door and other data)





PARTICIPANT INFORMATION

Company Name: _____

Contact Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

Email: _____ Website: _____

CATEGORY ENTRY (check one category)

☐ Single Family 'Small House' under 900 sq. ft.

☐ Single Family Homes over 3,000 sq. ft.

☐ Single Family Homes under 3,000 sq. ft.

☐ Multifamily

☐ Agricultural

☐ Commercial/Industrial/Institutional Buildings under 10,000 sq. ft.

☐ Commercial/Industrial/Institutional Buildings over 10,000 sq. ft.

☐ Renovations

☐ Affordable Housing

☐ High Performance (multiple category entry permitted)

PROJECT INFORMATION

Project Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Date completed: _____

Total cost of project (exclusive of land): _____

Dimensions of building (all floors of multi-story building): _____

Asking price/purchase price (Affordable Housing only): _____

Total sq. ft. of conditioned space: _____

BUILT BY (if different than applicant)

Company Name: _____

Contact Name: _____ Phone: _____

Address: _____

City: _____ State: _____ Zip: _____

PANELS MANUFACTURED BY (SIPA members only)

Company Name: _____

Continued

SIPA Building Excellence Application (Page 2 of 4)



DESIGNED BY (if different than applicant – SIPA will only recognize members)

Company Name: _____

Contact Name: _____

Phone: _____

Address: _____

City: _____

State: _____

Zip: _____

Please answer each question with as much detail as possible to help in the judging process.

Attach additional sheets if necessary.

Describe the end use of the building:

How did SIP construction help you get this job?

SIP wall thickness and core material: _____

SIP roof thickness and core material: _____

Describe the benefits of using SIPs on this project. Did SIPs help save time, labor, construction costs, or energy?

Describe any innovative design elements or structural engineering involved:

Continued

SIPA Building Excellence Application (Page 3 of 4)



Please list any certifications the project received, such as ENERGY STAR, LEED, National Green Building Standard, WELL, Passive House, Green Globes or local green building programs. Only list certifications that are completed:

HERS Index *(required only for High Performance Category and recommended for residential projects):*

Blower door test results (ACH50) *(required only for High Performance Category and recommended for residential projects):*

Energy use intensity in kBtu/ft² *(required only for High Performance Category and recommended for commercial projects):*

Describe the HVAC system used on the project:

Describe any other energy-saving materials used in the building envelope other than SIPs. List U-values of windows used and the U or R-value of any insulation materials. *(judged only for High Performance Category)*

Please list any energy-efficient products or design features, such as lighting, hot water heating, appliances, passive solar *(judged only for High Performance Category):*

Were any solar panels installed on the project? If so, indicate the size of the system *(judged only for High Performance Category):*

SIPA Building Excellence Application (Page 4 of 4)



Please list any sustainable materials or design features not listed above, such as recycled materials, low-VOC finishes, landscaping, etc. *(judged only for High Performance Category)*:

Any additional comments on the project:

CHECKLIST

- ☐ My company is a SIPA member. Panels for this project were manufactured by a SIPA member.
- ☐ I have answered ALL the questions completely
- ☐ I have enclosed the two required electronic images of the completed project meeting the requirements stated in the SIPA Building Excellence Awards guidelines

PLEASE CONFIRM: I have read and understand the rules for this competition. This entry is structural insulated panel construction as defined in the SIPA Building Excellence Awards guidelines. I understand by making this submission that my pictures will be used by the Structural Insulated Panel Association (SIPA) to promote the use of structural insulated panels. I hereby give permission to SIPA to use the enclosed pictures for any use they see fit in that endeavor. I understand that where possible, SIPA will give credit for pictures used to my company as listed above.

Signature: 

Date: _____

Entries that do not contain all required materials or are received after **January 11, 2019** will not be considered

Complete application and submit electronically to info@sips.org

Or send hard copy applications to SIPA office: P.O. Box 39848, Ft. Lauderdale, FL 33339



**Structural Insulated
Panel Association**

BUILDING EXCELLENCE AWARD SPONSOR



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BUILDING LEAKAGE TEST

Senty Inspection dba
Senty Construction LLC
PO Box 969
2043 Hy 61 West
Grand Marais, MN 55604

Date of Test: 10/10/2018	Test File: EPS Anton
Customer: EPS Foam	Technician: MSenty
340 Gunflint Trail	Project Number:
Grand Marais, MN 55604	
Phone: 612-499-0756	Building Address: Anton Moodey, builder
Email: LBergum@epsbuildings.com	Daniel Sigg, owner
	340 Gunflint Trail
	Grand Marais, MN 55604

Test Results

- | | |
|---|--|
| 1. Airflow at 50 Pascals:
(50 Pa = 0.2 w.c.) | 181 CFM50 (+/- 0.6 %)
0.92 ACH50
0.1467 CFM50/ft ² floor area
0.0569 CFM50/ft ² surface area |
| 2. Leakage Areas: | 19.1 in ² (+/- 2.0 %) Canadian EqLA @ 10 Pa
10.3 in ² (+/- 3.3 %) LBL ELA @ 4 Pa |
| 3. Building Leakage Curve: | Flow Coefficient (C) = 14.9 (+/- 5.3 %)
Exponent (n) = 0.638 (+/- 0.015)
Correlation Coefficient = 0.99869 |
| 4. Test Settings: | Test Standard: CGSB
Test Mode: Depressurization |
-

Infiltration Estimates

- | | |
|--|--|
| 1. Estimated Average Annual Infiltration Rate: | 11.7 CFM
0.06 ACH
2.9 CFM per person |
| 2. Estimated Design Infiltration Rate: | Winter: 21.4 CFM
0.11 ACH |
| | Summer: 15.6 CFM
0.08 ACH |
-

Cost Estimates

- | | |
|---|------------------------|
| 1. Estimated Cost of Air Leakage for Heating: | \$ 39 per year heating |
| 2. Estimated Cost of Air Leakage for Cooling: | |
-

Mechanical Ventilation Guideline (based on ASHRAE 62.2-2010)

Recommended Whole Bldg Rate:	62.3 CFM
Base Rate:	42.3 CFM
Supplemental Rate:	20.0 CFM
Infiltration Credit:	<0.0 CFM>

BUILDING LEAKAGE TEST Page 2 of 4Date of Test: 10/10/2018 Test File: EPS Anton

Building Information

Volume	11768
Surface Area	3181
Floor Area	1234
Height	16
# of Bedrooms	2
# of Occupants	4
Year of Construction	2018
Wind Shield	E

Location Climate Information

Ventilation Weather Factor	1.00
Energy Climate Factor	17.00
Heating Degree Days	9050
Cooling Degree Days	51
Design Winter Wind Speed	10.3 mph
Design Summer Wind Speed	11.7 mph
Design Winter Temp Diff	86 deg F
Design Summer Temp Diff	6 deg F

Heating and Cooling Cost and Efficiency Information

Heating Fuel	Propane
Heating Fuel Cost	\$1.70/gallon
Heating Efficiency %	95.00
Cooling Fuel Cost	
Cooling SEER	

Equipment Information

Type	Manufacturer	Model	Serial Number	Custom Calibration Date
Fan	Energy Conservatory	Model 3 (110V)		-
Micromanometer	Energy Conservatory	DG700	5651	5/22/2014

BUILDING LEAKAGE TEST Page 3 of 4Date of Test: 10/10/2018 Test File: EPS Anton

Depressurization Test:**Environmental Data**

Indoor Temperature (°F)	Outdoor Temperature (°F)
67.0	34.0

Data Points - Automated Test (TT 4.0.52.3)

Nominal Building Pressure (Pa)	Baseline Adjusted Building Pressure (Pa)	Fan Pressure (Pa)	Nominal Flow (cfm)	Adjusted Flow (cfm)	% Error	Fan Configuration
-0.8	n/a	n/a				
-51.7	-51.3	71.9	192	186	0.8	Ring C
-48.9	-48.5	64.5	181	176	-1.1	Ring C
-40.9	-40.5	53.5	165	159	0.8	Ring C
-35.7	-35.3	43.2	147	143	-1.5	Ring C
-30.3	-29.9	36.7	136	131	0.9	Ring C
-25.5	-25.1	28.9	120	116	-0.3	Ring C
-19.9	-19.5	21.4	103	100	0.3	Ring C
-0.1	n/a	n/a				

Deviations from Standard CGSB - Test Parameters

- One or more of the test data points was taken at a building pressure that differed by more than 2.5 Pascals from the target pressure.
 - Test data was not collected at all 8 recommended target building pressures.
-

Date of Test: 10/10/2018 Test File: EPS Anton

Comments

The Minnesota Energy Code leakage threshold is 3ACH@-50pa or less. This house

passes

at 0.92 ACH@-50pa. HRV rate 24/7 recommendation = 20CFM (or 60CFM at 20

minutes

on)

Kitchen range hood fan rate: Low 390 cfm, High 600 cfm Info from manual. Pressure

pan

capacity exceeded and was not measured "as is".

SAFETY: Combustion Appliance Zone Test results: With CAZ door open, dryer

operating, &

kitchen range hood fan set at low, depressurization = -49pa. At medium = -81pa at

high

= -115pa. The depressurization limit of the propane boiler (closed combustion unit) =

-50pa. Exceeding the depressurization limit of the boiler is a safety hazard, including

CO

gas entering the home. CO gas can cause death. Inspector recommends disabling the range hood fan until conditions are modified to create safe conditions for fan operation.

One option is make up air provided to the furnace room at a rate that reduces depressurization of the home when the fan is operated at high.

SIP panel reported date: Wall 5 1/2" core, R28, Ceiling 10" core R50
