TECTUM® IIIW

Structural Acoustical Roof Deck



Tectum IIIW Acoustical Roof Deck panels; Middlebridge School, Narragansett, RI

Ideal for hurricane prone areas that require Miami-Dade NOA approval, these three-in-one Composite Roof Deck Panels provide acoustics, insulation, and a nailable surface that accepts a wide variety of roofing materials.

KEY SELECTION ATTRIBUTES

- Miami-Dade NOA Approved (18-0619.03)
- Sound absorption – NRC up to 0.60
- R-value up to 44
- Spans up to 5 feet
- 50-pound design load
- Diaphragm shear up to 786 dsn/lf
- Nailable surface
- Low or high slope applications
- Wind uplift resistance up to 321 LB/SF
- new This product can be adjusted to comply with Build America, Buy America (BABA) requirements. Modifications to pricing and lead times may apply. Contact your local sales representative for additional information.

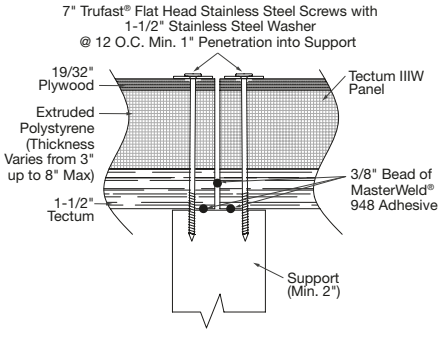
TYPICAL APPLICATIONS

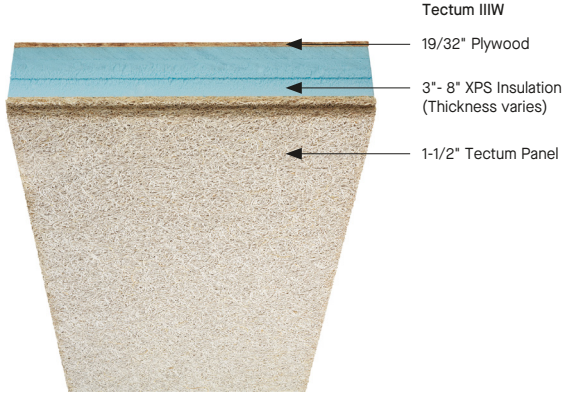
- Schools
- Gymnasiums
- Arenas

TECTUM® IIIW

The Tectum® IIIW roof deck panel is a composite of a 1-1/2" or thicker Tectum substrate, XPS (extruded polystyrene) insulation 3" to 8" thick, and 19/32" plywood sheathing with a slip-resistant surface. Tectum IIIW panels are typically used in hurricane prone sloped applications where insulation, ease of installation, a nailable surface, and high wind resistance are required.

TECTUM IIIW OVER SUPPORT





TechLine 877 276-7876
armstrongceilings.com/roofdeck

Armstrong® World Industries

TECTUM® IIIW

Structural Acoustical Roof Deck

FSC www.fsc.org FSC® C007626
The mark of responsible forestry
(Upon Request)

LEED V5

COMMON MATERIALS FRAMEWORK	Climate Health
Human Health	Ecosystem Health FSC®
	Circular Economy
OCCUPANT EXPERIENCE	Acoustics ✓

DESIGN LOAD DATA[1]

System	Thickness[1]	Wt. (PFS)[2]	24"	30"	36"	38"	40"	42"	44"	48"	50"	52"	54"	60"	66"	72"
Plank	5"	5.0						200	175	135	125	115	105	85	70	60
	6", 7"	5.2								200	180	170	160	150	125	105
	8", 9", 10"	5.5												200	165	136

For loads greater than 200 lbs., contact Armstrong TechLine.
[1] Thickness and weight are nominal. For loads greater than 200 lbs., contact Tectum Inc. Technical Department.
[2] All published design loads are based on a minimum safety factor of four. For example, 50 psf design load has an ultimate load of 200 psf.

THERMAL PERFORMANCE

Based on 1-1/2" Tectum Substrate

Insulating Foam Thickness	Total[1] Thickness	R-Value[2]	Weight PSF
3"	5"	19.36	4.7
4"	6"	24.36	4.8
5"	7"	29.36	5.0
6"	8"	34.36	5.4
7"	9"	39.36	5.8
8"	10"	44.36	6.2

[1] Total thickness includes 19/32" Plywood nailable top surface.
[2] R-values include air films and built-up roofing.

UPLIFT RESISTANCE SCREW ASSEMBLIES DESIGN DATA

Span	Plank Width	Fasteners per Frame Intersect	Uplift Resistance** (psf)
36"	47"	4	321
42"	47"	4	275
48"	47"	4	241
60"	47"	4	165
72"	47"	4	160

**A safety factor of 2 has been used to determine uplift resistance. Screws to be minimun of 2" longer than panel thickness. 1.5" diameter washer must be used. Panels must have a double span condition.

DIAPHRAGM DESIGN DATA

Call TechLine for assistance when designing and detailing Tectum® Roof Deck Systems

Type	Panel Size D × W × L	Joist	Span[1]	Fasteners	Field Spacing[3]	Perimeter	Adhesive[2]	Grout	ULT/LF	DSN/LF
Plank	5 × 47 × 144"	Wood	72"	7" 14-Gauge Sip Scr/1-1/2" w	4/Joist/Panel	12" O.C. sides + ends	T&G + Joist	None	964	320
Tile	2 × 23-1/2 × 143"	Wood	72"	7" 14-Gauge Sip Scr/1-1/2" w	6/Joist/Panel	6" O.C. sides + ends	T&G + Joist	None	–	–
	2 × 31-1/2 × 95"	OSB	–	2" × 16-Gauge Staples	8" @ 24" Centers	4" O.C. sides + ends	Per & 24" O.C.	None	2363	786

[1] Values over wood joists are conservative compared to values over steel.
[2] Adhesive is to meet the requirements of AFG-01. A 3/8" bead of adhesive is to be used. Approximately 50 linear feet of adhesive per quart tube. Specific adhesive used on test assemblies was Miracle® SFA-66 adhesive.
[3] All panels were installed with staggered ends except Tectum I tile with 168 bulb tees and Tectum III tile on truss tees.

SUSTAINABILITY INFORMATION

- Made with wood fibers (excelsior) from self-propagating Wisconsin Aspen trees
- All Wisconsin Aspen used for Tectum® products is air-dried and aged naturally
- No chemicals are used to produce excelsior purchased by Armstrong
- All excelsior used in Tectum products comes from a single source that is Forest Stewardship Council (FSC) certified
- The magnesium sulfate binder has been manufactured on site by reclaiming waste materials since production first began in 1949
- The secondary binder is composed of sodium silicate and calcium carbonate (limestone)
- All water used in the manufacture of Tectum products is captured and recycled

ADDITIONAL DETAILS

For more information, or for an Armstrong representative, call 877 276-7876. For complete technical information, detail drawings, CAD design assistance, installation information, and many other technical services, call TechLine customer support at 877 276-7876 or email techline@armstrongceilings.com.

For the latest product selection and specification data, visit armstrong.com/roofdeck.

COMPOSITE ROOF DECK PANELS

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