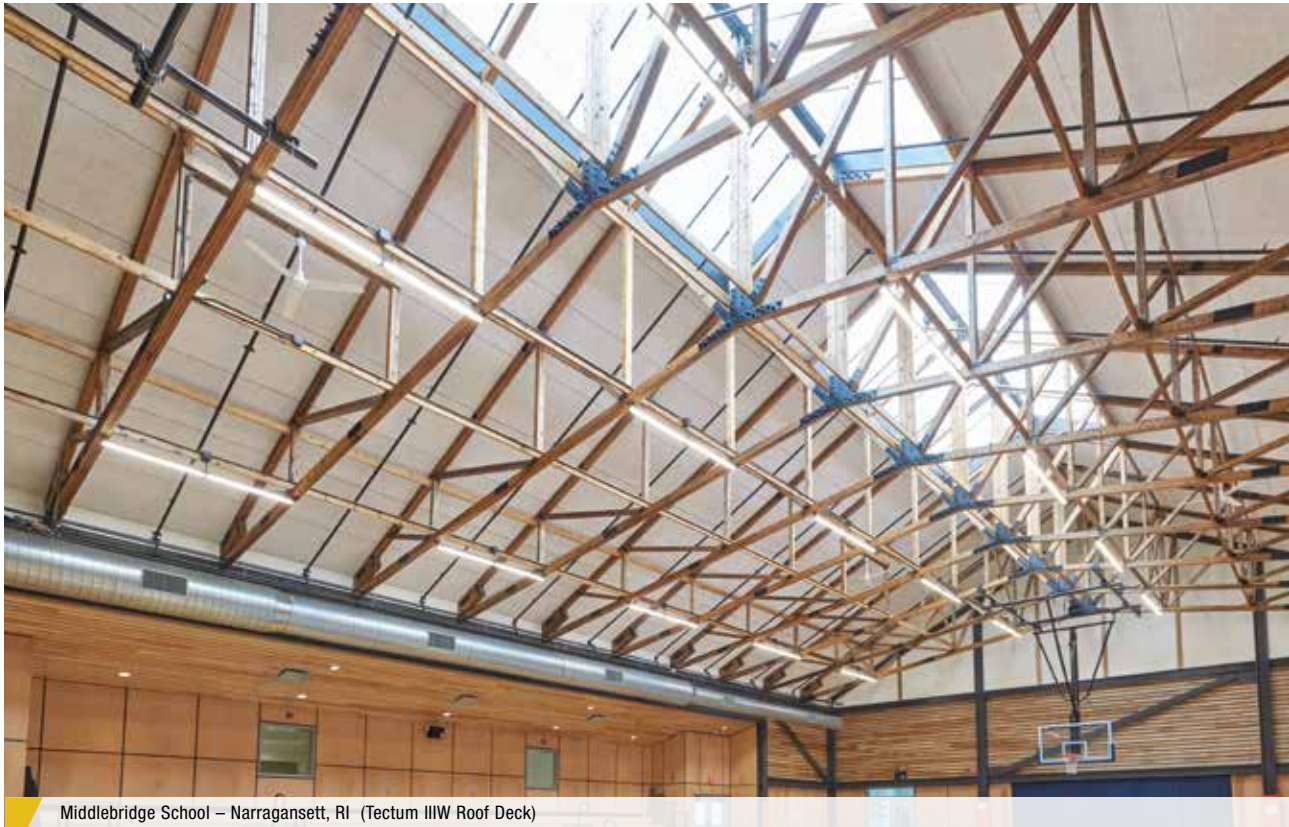


TECTUM® IIIW

Structural Acoustical Roof Deck



Middlebridge School – Narragansett, RI (Tectum IIIW Roof Deck)

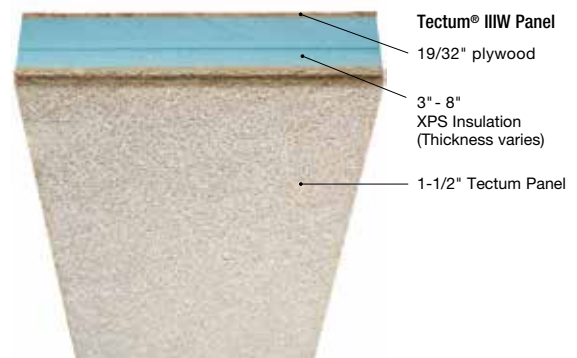
Ideal for hurricane prone areas that require Miami-Dade NOA approval, these three-in-one Composite Roof Deck Panels provide acoustics, insulation, and a nailable surface that accepts a wide variety of roofing materials.

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 60"
- 50-pound design load
- Diaphragm shear up to 786 dsn/lf
- Nailable surface
- Low or high slope applications
- Wind uplift resistance up to 321 lbs/sq ft.

TYPICAL APPLICATIONS

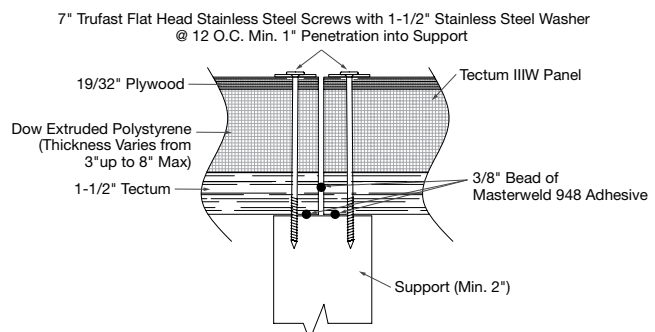
- TECTUM® IIIW**
- Schools
 - Gymnasiums
 - Arenas

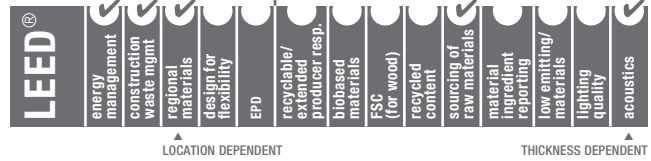


TECTUM® IIIW

The Tectum® III roof deck panel is a composite of a 1-1/2" or thicker Tectum substrate, Styrofoam™ brand 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, and a nailable surface and high wind resistance are required.

Tectum® IIIW Over Support





TECTUM® IIIW

Structural Acoustical Roof Deck design guidelines

TECTUM® IIIW ROOF DECK DESIGN LOAD DATA¹

System	Thickness***	Wt. (PSF) ²	Product	Design Load (psf)													
				24"	30"	36"	38"	40"	42"	44"	48"	50"	52"	54"	60"	66"	72"
Comp. Plank	5"	5.0	IIIW						200	175	135	125	115	105	85	70	60
T-IIIW	6", 7"	5.2	IIIW							200	180	170	160	150	125	105	
	8", 9", 10"	5.5	IIIW											200	165	136	

¹All 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.
²Thickness and weight are nominal. For loads greater than 200 lbs., contact Tectum Inc. Technical Department

TECTUM® IIIW 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 minimum of 2" longer than panel thickness. 1.5" diameter washer must be used. Panels must have a double span condition.

TECTUM® IIIW DIAPHRAGM DESIGN DATA Call for assistance when designing and detailing Tectum® Roof Deck Systems

Type	Panel Size D x W x L	Test No.	Joist	Span ⁴	Fasteners	Field Spacing ²	Perimeter	Adhesive ^{1,3}	Grout	ULT/LF	DSN/LF
T-IIIW Plank	5 x 47 x 144"	94-30037E	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
T-IIIW Plank/Overlay	5 x 47 x 144"	-	Wood	72"	7" 14-Gauge Sip Scr/1-1/2" w	6/Joist/Panel	6" O.C. sides + ends	T&G + Joist	None	-	-
	7/16 x 48 x 144"	92-3777	OSB	-	2" x 16-Gauge Staples	8" @ 24" Centers	4" O.C. sides + ends	Per & 24" O.C.	None	2363	786

¹ Adhesive is to meet the requirements of AFG-01. A 3/8" bead of adhesive is to be used. Approximately 38 linear feet of adhesive per quart tube.
² All panels were installed with staggered ends except Tectum I tile with 168 bulb tees and Tectum III tile on truss tees.
³ Specific adhesive used on test assemblies was Miracle Construction Adhesive SFA – 66.
⁴ Values over wood joists are conservative when supports are steel.
⁵ See Technical Bulletin T-77 for more information. Call for assistance when designing and detailing this Tectum® Roof Deck system.
⁶ Tectum E and III Roof Deck Panels produce equivalent results.

Please click on the test number to view download the actual test.

TECTUM® PRODUCTS – SUSTAINABLY MADE

- 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 Building Solutions
- 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

TECTUM PRODUCTS AND LEED®

Armstrong® Tectum® Roof Deck products may contribute to the following LEED® V4 credit areas:

Energy & Atmosphere (EA)

- Minimum Energy Performance
- Optimize Energy Performance

Materials & Resources (MR)

- Construction Waste Management
- Regional Materials
- Building Life Cycle Reduction
- Interiors Life Cycle Reduction
- Building Disclosure and Optimization – Sourcing of Raw Materials

Indoor Environmental Quality (EQ)

- Acoustic Performance

MORE INFORMATION

For more information, or for an Armstrong Building Solutions representative, call 1 877 276-7876. For complete technical information, detail drawings, CAD design assistance, installation information, and many other technical services, call TechLine customer support at 1 877 276-7876 or email techline@armstrongceilingsolutions.com.

For the latest product selection and specification data, visit armstrongbuildingsolutions.com/tectum.