STRUCTALL BUILDING SYSTEMS

EPS FOAM CORE WALL PANELS - METAL SKIN
SNAP & LOCK® SPAN TABLE PERFORMANCE EVALUATION

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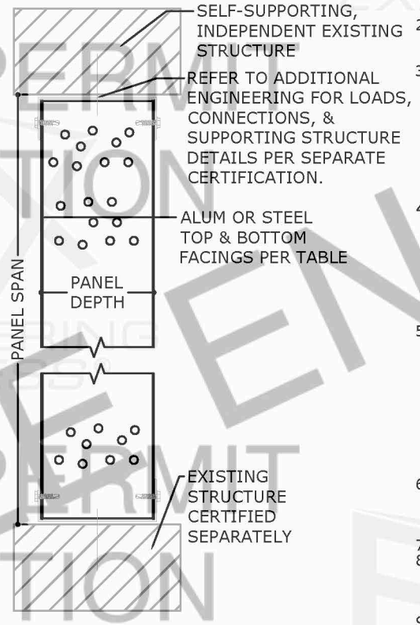
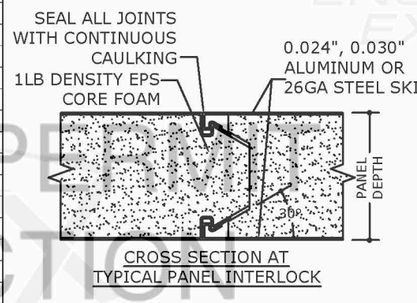
MAXIMUM ALLOWABLE CLEAR SPAN TABLE:

Total Load*	Deflection Limit (L/...)	3" Panels		4" Panels			6" Panels		
		0.024" Alum Skin	0.030" Alum Skin	0.024" Alum Skin	0.030" Alum Skin	26ga Steel Skin	0.024" Alum Skin	0.030" Alum Skin	26ga Steel Skin
		1-LB EPS	1-LB EPS	1-LB EPS	1-LB EPS	1-LB EPS	1-LB EPS	1-LB EPS	1-LB EPS
+/- 10 PSF	80	16'-11"	16'-0"	20'-0"	20'-0"	20'-2"	22'-1"	24'-0"	23'-0"
	120	14'-10"	16'-0"	17'-6"	19'-9"	20'-2"	21'-9"	24'-0"	23'-0"
	180	12'-11"	16'-0"	15'-3"	17'-3"	18'-5"	19'-0"	21'-4"	22'-9"
	240	11'-9"	15'-8"	13'-11"	15'-8"	16'-9"	17'-3"	19'-5"	20'-8"
+/- 15 PSF	80	14'-2"	16'-0"	16'-5"	17'-7"	16'-6"	18'-0"	20'-2"	20'-4"
	120	12'-11"	16'-0"	15'-3"	17'-3"	16'-6"	18'-0"	20'-2"	20'-4"
	180	11'-3"	15'-1"	13'-4"	15'-1"	16'-1"	16'-7"	18'-8"	19'-11"
	240	10'-3"	13'-8"	12'-1"	13'-8"	14'-8"	15'-1"	16'-11"	18'-1"
+/- 20 PSF	80	12'-3"	13'-10"	14'-3"	15'-3"	14'-3"	15'-7"	17'-5"	17'-8"
	120	11'-9"	13'-10"	13'-11"	15'-3"	14'-3"	15'-7"	17'-5"	17'-8"
	180	10'-3"	13'-8"	12'-1"	13'-8"	14'-3"	15'-1"	16'-11"	17'-8"
	240	9'-4"	12'-5"	11'-0"	12'-5"	13'-3"	13'-8"	15'-4"	16'-5"
+/- 25 PSF	80	10'-11"	12'-5"	12'-9"	13'-8"	12'-9"	14'-0"	15'-7"	15'-9"
	120	10'-11"	12'-5"	12'-9"	13'-8"	12'-9"	14'-0"	15'-7"	15'-9"
	180	9'-6"	12'-5"	11'-3"	12'-8"	12'-9"	14'-0"	15'-7"	15'-9"
	240	8'-8"	11'-6"	10'-3"	11'-6"	12'-4"	12'-8"	14'-3"	15'-3"
+/- 30 PSF	80	10'-0"	11'-4"	11'-7"	12'-5"	11'-8"	12'-9"	14'-3"	14'-5"
	120	10'-0"	11'-4"	11'-7"	12'-5"	11'-8"	12'-9"	14'-3"	14'-5"
	180	8'-11"	11'-4"	10'-7"	11'-11"	11'-8"	12'-9"	14'-3"	14'-5"
	240	8'-2"	10'-10"	9'-7"	10'-10"	11'-7"	11'-11"	13'-5"	14'-4"
+/- 35 PSF	80	9'-3"	10'-5"	10'-9"	11'-6"	10'-9"	11'-9"	13'-2"	13'-4"
	120	9'-3"	10'-5"	10'-9"	11'-6"	10'-9"	11'-9"	13'-2"	13'-4"
	180	8'-6"	10'-5"	10'-1"	11'-4"	10'-9"	11'-9"	13'-2"	13'-4"
	240	7'-9"	10'-4"	9'-2"	10'-4"	10'-9"	11'-4"	12'-9"	13'-4"
+/- 40 PSF	80	8'-8"	9'-9"	10'-1"	10'-9"	10'-1"	11'-0"	12'-4"	12'-5"
	120	8'-8"	9'-9"	10'-1"	10'-9"	10'-1"	11'-0"	12'-4"	12'-5"
	180	8'-2"	9'-9"	9'-7"	10'-9"	10'-1"	11'-0"	12'-4"	12'-5"
	240	7'-5"	9'-9"	8'-9"	9'-10"	10'-1"	10'-10"	12'-2"	12'-5"
+/- 45 PSF	80	8'-2"	9'-3"	9'-6"	10'-2"	9'-6"	10'-5"	11'-7"	11'-9"
	120	8'-2"	9'-3"	9'-6"	10'-2"	9'-6"	10'-5"	11'-7"	11'-9"
	180	7'-10"	9'-3"	9'-3"	10'-2"	9'-6"	10'-5"	11'-7"	11'-9"
	240	7'-1"	9'-3"	8'-5"	9'-6"	9'-6"	10'-5"	11'-7"	11'-9"
+/- 50 PSF	80			9'-0"	9'-7"	9'-0"	9'-10"	11'-0"	11'-2"
	120			9'-0"	9'-7"	9'-0"	9'-10"	11'-0"	11'-2"
	180			8'-11"	9'-7"	9'-0"	9'-10"	11'-0"	11'-2"
	240			8'-1"	9'-2"	9'-0"	9'-10"	11'-0"	11'-2"
+/- 55 PSF	80			8'-7"	9'-2"	8'-7"	9'-5"	10'-6"	10'-7"
	120			8'-7"	9'-2"	8'-7"	9'-5"	10'-6"	10'-7"
	180			8'-7"	9'-2"	8'-7"	9'-5"	10'-6"	10'-7"
	240			7'-10"	8'-10"	8'-7"	9'-5"	10'-6"	10'-7"
+/- 60 PSF	80			8'-2"	8'-9"	8'-3"	9'-0"	10'-1"	10'-2"
	120			8'-2"	8'-9"	8'-3"	9'-0"	10'-1"	10'-2"
	180			8'-2"	8'-9"	8'-3"	9'-0"	10'-1"	10'-2"
	240			7'-7"	8'-7"	8'-3"	9'-0"	10'-1"	10'-2"
+/- 65 PSF	80			7'-9"	7'-9"	7'-11"	8'-8"	9'-8"	9'-9"
	120			7'-9"	7'-9"	7'-11"	8'-8"	9'-8"	9'-9"
	180			7'-9"	7'-9"	7'-11"	8'-8"	9'-8"	9'-9"
	240			7'-5"	7'-5"	7'-11"	8'-8"	9'-8"	9'-9"
+/- 70 PSF	80			7'-3"	7'-3"	7'-7"	8'-4"	9'-4"	9'-5"
	120			7'-3"	7'-3"	7'-7"	8'-4"	9'-4"	9'-5"
	180			7'-3"	7'-3"	7'-7"	8'-4"	9'-4"	9'-5"
	240			7'-3"	7'-3"	7'-7"	8'-4"	9'-4"	9'-5"
+/- 75 PSF	80					7'-4"	8'-0"	9'-0"	9'-1"
	120					7'-4"	8'-0"	9'-0"	9'-1"
	180					7'-4"	8'-0"	9'-0"	9'-1"
	240					7'-4"	8'-0"	9'-0"	9'-1"
+/- 80 PSF	80							8'-8"	8'-10"
	120							8'-8"	8'-10"
	180							8'-8"	8'-10"
	240							8'-8"	8'-10"

NOTE: THIS TABLE REPRESENTS NON-LOADBEARING CONDITIONS ONLY. THESE PANELS TO TAKE NO AXIAL LOAD.



1/1 WALL PANEL SPAN
N.T.S. PLAN OR SECTION



CROSS SECTION AT TYPICAL PANEL INTERLOCK

2/1 PANEL INTERLOCK DETAIL
N.T.S. DETAIL

MAXIMUM ALLOWABLE DESIGN PRESSURES:

AS NOTED IN CLEAR SPAN TABLE

DESIGN NOTES:

1. THIS IS A STRUCTURAL EVALUATION ONLY. NO WATERPROOFING OR USE CASE ARE CERTIFIED WITH THIS PLAN.
2. POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS.
3. WORK HAS BEEN DESIGNED IN ACCORDANCE WITH THE STRUCTURAL REQUIREMENTS OF THE 2012/2015/2018/2021 INTERNATIONAL BUILDING CODES 7TH (2020) & 8TH (2023) EDITIONS FLORIDA BUILDING CODES, AS WELL AS CURRENT VERSIONS OF THE MN, NC, NJ, NY, OH, SC, & VA BUILDING CODES AS APPLICABLE. CODE ENFORCED COMPLIES WITH STATE OF SEAL AND IF MULTIPLE VERSIONS LISTED THEN MOST STRINGENT APPLIES.
4. SEPARATE 'SITE-SPECIFIC' SEALED ENGINEERING SHALL BE REQUIRED IN ORDER TO DEVIATE FROM LOADS, DEFLECTIONS, OR SPANS CONTAINED HEREIN. LINEAR INTERPOLATION OF THE ALLOWABLE SPAN TABLES LISTED HEREIN SHALL NOT BE PERMITTED. CONTACT THIS ENGINEER FOR ALTERNATE SPAN CALCULATIONS AS MAY BE REQUIRED OR USE THE ECALC.IO LINK PROVIDED HEREIN.
5. EPS CORE COMPOSITE PANELS SHALL BE CONSTRUCTED USING TYPE 3105-H254 ALUMINUM FACINGS OR ASTM A653, CS, TYPE B HOT DIP GALVANIZED G90 COATED STEEL FACINGS. EXPANDED POLYSTYRENE FOAM SHALL HAVE TYPICAL DENSITY OF 1.0 PCF. THE EPS FOAM SHALL BE ADHERED TO THE ALUMINUM FACING WITH MORAD M640 SERIES ADHESIVE (BY ROHM AND HAAS COMPANY). FABRICATION SHALL BE IN ACCORDANCE WITH APPROVED FABRICATION METHODS BY MANUFACTURER FOR ALL PANELS.
6. IF APPLICABLE, COMPOSITE PANELS SHALL COMPLY WITH CHAPTER 7 SECTION 721, CHAPTER 8 SECTION 803, CLASS A INTERIOR FINISH, AND CHAPTER 26 SECTION 2603 OF THE FLORIDA/INTERNATIONAL CODE.
7. PANELS TO BE BY STRUCTALL BUILDING SYSTEMS ONLY.
8. SEAL ALL SEAMS AND CONNECTIONS WITH STRUCTURAL GRADE ADHESIVE SEALANT (1500 PSI MIN. TENSILE LOAD STRENGTH), AND CLEAN ROOF OF ANY DIRT, GREASE, WATER OR OIL.
9. DESIGN PRESSURES AS NOTED HEREIN ARE BASED ON A MAXIMUM TESTED PRESSURE DIVIDED BY A 2.0 FACTOR OF SAFETY.

TABLE USE INSTRUCTIONS:

1. DETERMINE TYPE OF ENCLOSURE TO BE COVERED (OPEN, SCREENED WALLS, OR FULLY ENCLOSED) AND CORRESPONDING DEFLECTION LIMIT.
2. ▨ INDICATES VALUES NOT VALID FOR USE.
3. THE SPANS LISTED HEREIN ARE APPLICABLE FOR NON-HABITABLE STRUCTURES ONLY. DETERMINE THE SITE SPECIFIC REQUIRED DESIGN LOAD PER BY SEPARATE ENGINEERING, CERTIFIED BY A DESIGN PROFESSIONAL IN ACCORDANCE WITH THE FLORIDA BUILDING CODE AND ANY GOVERNING CODE, MUNICIPALITY, AND BUILDING CODES IN EFFECT FOR THE PROJECT LOCATION.
4. *TOTAL LOAD = SUM OF ALL LOADS (WIND, LIVE, DEAD, ETC.) ACTING IN THE WORST CASE LOAD COMBINATION.
5. BASED ON THE PROJECT DESIGN CONDITIONS DETERMINED, SELECT A SUITABLE ROOFING PANEL WITH AN ALLOWABLE SPAN GREATER THAN OR EQUAL TO THE PROJECT REQUIREMENTS.
6. COMPONENT FRONT CONNECTION TO SUPPORTING BEAM AND BACK CONNECTION TO HOST STRUCTURE TO BE DETERMINED SEPARATELY ON A SITE SPECIFIC BASIS BY A DESIGN PROFESSIONAL.

SPAN TABLE NOTES:

1. SPANS SHOWN BASED ON PRODUCT TESTING LISTED IN GENERAL NOTES.
2. PANEL DEAD LOADS HAVE BEEN FACTORED INTO CALCULATIONS FOR GRAVITY LOADS AS WELL AS CALCULATIONS FOR PANEL PROPERTIES.
3. POSITIVE AND NEGATIVE DESIGN PRESSURE SHALL BE DETERMINED SEPARATELY PER ASCE 7 BASED ON SITE SPECIFIC APPLICATION AND COMPARED TO THE APPLICABLE TABLE ABOVE. THE LIMITING POSITIVE OR NEGATIVE PRESSURE SPAN VALUE SHALL BE USED FOR INSTALLATION.
4. CALCULATED PRESSURES SHALL CONSIDER THE CONTROLLING LOAD COMBINATION, USING ALL APPLICABLE ASCE 7 LOADS INCLUDING DEAD, LIVE, SNOW, WIND, AND ANY OTHER LOADING APPLICABLE TO THE INSTALLATION, DETERMINED PER SEPARATE CERTIFICATION.
5. TABLE CONSIDERS ASD DESIGN PRESSURES. TO CONVERT SEPARATELY CALCULATED ULTIMATE PRESSURES TO DESIGN PRESSURES, P(ULT)*0.6 = P(ASD).

GENERAL NOTES:

1. THIS SPECIFICATION HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE. CONTRACTOR SHALL INVESTIGATE AND CONFORM TO ALL LOCAL BUILDING CODE AMENDMENTS WHICH MAY APPLY. DESIGN CRITERIA BEYOND AS STATED HEREIN MAY REQUIRE ADDITIONAL SITE-SPECIFIC SEALED ENGINEERING. SEISMIC DESIGN HAS NOT BEEN CONSIDERED.
2. THIS DOCUMENT IS ONLY VALID WITH ORIGINAL SIGNATURE AND SEAL OF A P.E. OF THIS FIRM.
3. THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR.
4. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
5. THE CONTRACTOR SHALL CAREFULLY CONSIDER POSSIBLE IMPOSING LOADS, INCLUDING BUT NOT LIMITED TO ANY CONCENTRATED LOADS WHICH MAY JUSTIFY GREATER DESIGN CRITERIA. THIS ADDITIONAL LOAD CRITERIA SHALL BE PROPERLY ANALYZED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT.
6. THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
7. ENGINEER SEAL AFFIXED HERE TO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
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BOCA RATON, FL 33431
ENGINEERINGEXPRESS.COM

STRUCTALL BUILDING SYSTEMS
350 BURBANK ROAD
OLDSMAR, FL 34677
(813) 855-2627

EPS FOAM CORE WALL PANELS - METAL SKIN
STRUCTURAL SPAN TABLES
PERFORMANCE EVALUATION

REMARKS	DRWN	CHKD	DATE
INITIAL PROJECT (20-25297)	TT	FB	06/02/20
FBC 2023 (23-69367)	CLV	CCB	11/14/23
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

23-69367

SCALE: NTS UNLESS NOTED

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