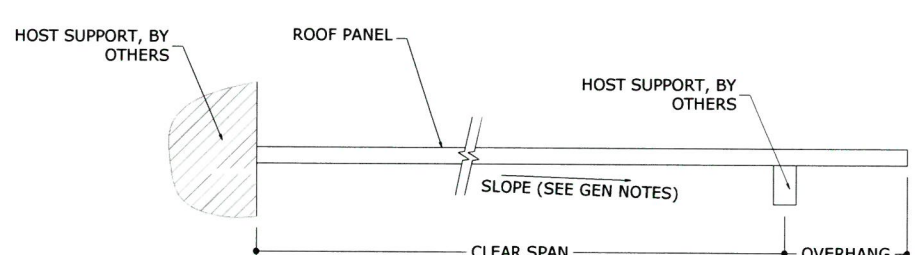
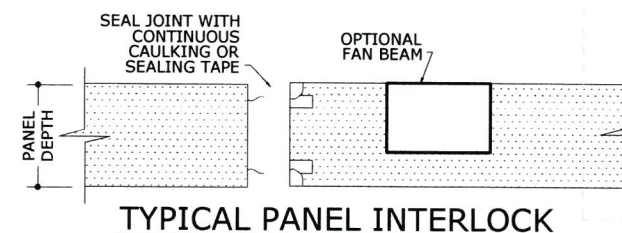
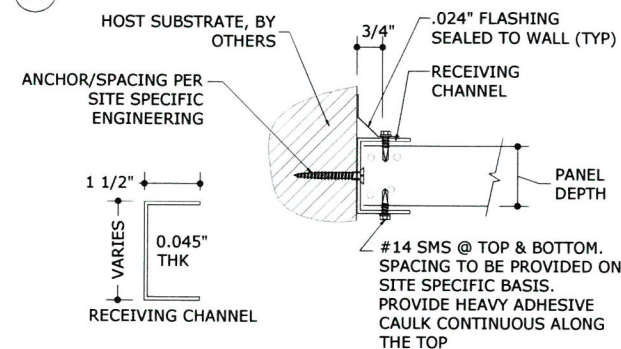


# EPS FOAM CORE ROOF PANEL CAPACITY CHARTS - METAL SKIN

## GENERAL NOTES

- THIS SYSTEM HAS BEEN TESTED AND EVALUATED IN ACCORDANCE WITH THE 2006 & 2018 INTERNATIONAL BUILDING CODE AND INTERNATIONAL RESIDENTIAL CODE WITH LATEST APPLICABLE TEXAS REVISIONS.
- SITE-SPECIFIC REQUIRED DESIGN PRESSURES SHALL BE CALCULATED BY A LICENSED PROFESSIONAL ENGINEER FOR USE WITH THIS DOCUMENT.
- ROOF PANELS ARE VALID FOR USE IN OUTDOOR PATIO CONSTRUCTION ONLY.
- LARGE & SMALL MISSILE IMPACT RESISTANCE HAS NOT BEEN DEMONSTRATED OR EVALUATED.
- COMPOSITE ROOF PANELS COMPLY WITH CHAPTER 7 SECTION 720, CHAPTER 8 SECTION 803, CLASS A INTERIOR FINISH, AND CHAPTER 26 SECTION 2603 OF THE INTERNATIONAL BUILDING/RESIDENTIAL 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.
- NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. WIND LOAD DURATION FACTOR  $C_d = 1.6$  WAS USED FOR WOOD SCREW DESIGN.
- THESE PRODUCT EVALUATION DOCUMENTS ARE GENERIC AND DO NOT INCLUDE INFORMATION FOR SITE-SPECIFIC APPLICATION OF THIS SYSTEM. THESE PRODUCT EVALUATION DOCUMENTS ARE INTENDED FOR USE ONLY BY A LICENSED CONTRACTOR, PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT AND ARE SUITABLE TO BE APPLIED BY THE CONTRACTOR PROVIDED THE CONTRACTOR DOES NOT DEVIATE FROM THE CONDITIONS DETAILED HEREIN AND THE CONTRACTOR VERIFIES THAT THE EXISTING STRUCTURE DOES NOT DEVIATE IN EITHER FORM OR MATERIAL FROM THE SPECIFICATIONS DETAILED HEREIN. ONSITE DESIGN PROFESSIONAL SHALL VERIFY EXISTING STRUCTURE CAN WITHSTAND SUPERIMPOSED LOADS.
- WHEN THE SITE CONDITIONS DEVIATE FROM THESE PRODUCT EVALUATION DOCUMENTS THE BUILDING OFFICIAL MAY REQUIRE THAT SITE SPECIFIC DOCUMENTS BE PREPARED, SIGNED, DATED AND SEALED BY A LICENSED ENGINEER OR REGISTERED ARCHITECT, WHICH DETAIL AND JUSTIFY THE DEVIATION. SAID DOCUMENTS SHALL BE SUBMITTED TO THE PRODUCT ENGINEER FOR REVIEW AS A CONDITION TO THE BUILDING OFFICIAL GRANTING HIS/HER APPROVAL.
- ALL EXTRUSIONS SHALL BE 6063-T6 OR 6005-T5 ALUMINUM ALLOY, U.O.N.
- ALL BOLTS AND WASHERS (EXCLUDING INSTALLATION) SHALL BE GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 K.S.I., U.O.N.
- THE CONTRACTOR SHALL CAREFULLY CONSIDER POSSIBLE IMPOSING LOADS ON ROOF, INCLUDING BUT NOT LIMITED TO ANY CONCENTRATED LOADS WHICH MAY JUSTIFY GREATER DESIGN CRITERIA. THIS ADDITIONAL ROOF LOAD CRITERIA SHALL BE PROPERLY ANALYZED BY A PROFESSIONAL ENGINEER.
- EPS CORE COMPOSITE PANELS SHALL BE CONSTRUCTED USING TYPE 3105-H254 ALUMINUM FACINGS OR 26 GAUGE COMMERCIAL GRADE STEEL WITH G90 COATING, 1.0 PCF EPS. THE EPS FOAM SHALL BE ADHERED TO THE FACINGS WITH MOR-AD M-652 MOISTURE CURE URETHANE ADHESIVE (BY ROHM & HAAS Co.). FABRICATION SHALL BE IN ACCORDANCE WITH APPROVED FABRICATION METHODS BY METALS USA BLDG PRODUCTS AT THEIR GROVELAND FACILITY.
- ENGINEER'S SEAL AFFIXED HERETO VALIDATES DESIGN OF SPAN CHART VALUES AS SHOWN ONLY. USE OF THIS SPECIFICATION BY METALS USA BLDG PRODUCTS, et al. INDEMNIFIES AND SAVES HARMLESS THIS ENGINEER FOR ALL COSTS AND DAMAGES INCLUDING LEGAL FEES AND APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, AND CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, AND FEDERAL CODES AND FROM DEVIATIONS OF THIS DETAIL.
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

## A RECEIVING CHANNEL DETAIL



## TABLE VALUE DERIVATIONS:

- PANEL PROPERTIES:
- PANEL STRUCTURAL PROPERTIES DERIVED FROM CERTIFIED TEST REPORTS (REPORT Nos. 50332-A, 50410-A, 50410-B, 50410-C, 50410-D, 50410-E, 50410-F, 50410-G, 50410-H, 50410-I, BY TERRAPIN TESTING, Inc.).
  - PANEL DEAD LOADS HAVE BEEN FACTORED INTO CALCULATIONS FOR GRAVITY LOADS AS WELL AS CALCULATIONS FOR PANEL PROPERTIES.

## INSTRUCTIONS FOR TABLE USE

- CHOOSE TYPE OF ENCLOSURE TO BE COVERED (OPEN, ALUMINUM SCREENED WALLS, OR FULLY ENCLOSED).
- FIND ALLOWABLE COMPOSITE PANEL CLEAR SPAN IN TABLES FOR APPROPRIATE PANEL DEPTH, FACING THICKNESS, AND EPS CORE DENSITY SELECTED (UTILIZE SITE SPECIFIC DESIGN PRESSURE AS DETERMINED SEPARATELY). SITE SPECIFIC DESIGN PRESSURE SHALL BE LESS THAN OR EQUAL TO THE ALLOWABLE PRESSURES LISTED IN THE DESIGN SCHEDULE.

## NOTES ON DEFLECTION USE

- USE L/120 FOR ALL MEMBERS SUPPORTING ROOFS OVER AN OPEN OR SCREEN-WALLED ROOM.
  - USE L/180 FOR ALL MEMBERS SUPPORTING ROOFS WITH A NON-PLASTERED CEILING OVER AN ENCLOSED ROOM.
  - USE L/240 FOR ALL MEMBERS SUPPORTING ROOFS WITH A PLASTERED CEILING OVER AN ENCLOSED ROOM, PER IBC/IRC.
- \*NOTE: ALTERNATE DEFLECTION CRITERIA MAY BE USED IF ACCEPTED BY THE LOCAL JURISDICTION.

## OTHER DESIGN CONSIDERATIONS

- FRONT OVERHANG MAY BE UP TO 3'-0" WITH VALUES ABOVE. MAXIMUM UNSUPPORTED SIDE OVERHANG IS 25% OF LAST PANEL WIDTH (i.e. 12" MAX FOR 48" PANEL WIDTH).
- ROOF PITCH SHALL BE 1/4" PER FOOT MIN, 3" PER FOOT MAX.
- SEPARATE 'SITE-SPECIFIC' SEALED ENGINEERING SHALL BE REQUIRED IN ORDER TO DEVIATE FROM LOADS, DEFLECTIONS, OR SPANS CONTAINED HEREIN. LINEAR INTERPOLATION OF THE TABLE IS NOT PERMITTED. CONTACT THIS ENGINEER FOR ALTERNATE SPAN CALCULATIONS AS MAY BE REQUIRED.
- FOR PARTIALLY ENCLOSED STRUCTURES, PRESSURES SHALL BE CALCULATED BY A LICENSED PROFESSIONAL ENGINEER. SEE ASCE 7 FOR DESCRIPTION OF OPEN, PARTIALLY ENCLOSED, & ENCLOSED STRUCTURES FOR USE AS APPLICABLE.

## MAXIMUM ALLOWABLE CLEAR SPAN SCHEDULE:

Live Load or Uplift	Deflection Limit (L/...)	3" Panels			4" Panels			6" Panels			
		0.024" Alum Skin	0.030" Alum Skin	26ga Steel Skin	0.024" (*) 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	1.5-lb EPS	1-lb EPS	1-lb EPS	1-lb EPS	1-lb EPS	1-lb EPS	1-lb EPS
10 psf	120	15'-1"	17'-6"	18'-7"	15'-9"	17'-10"	19'-3"	22'-0"	22'-7"	23'-0"	23'-0"
15 psf	120	13'-2"	15'-3"	16'-3"	13'-9"	15'-7"	16'-10"	18'-10"	19'-8"	20'-9"	23'-0"
21 psf	120	11'-9"	13'-8"	14'-0"	12'-3"	14'-0"	15'-0"	15'-11"	17'-7"	18'-6"	20'-2"
21 psf	180	10'-3"	12'-0"	12'-8"	10'-9"	12'-2"	13'-1"	15'-0"	15'-5"	16'-2"	18'-10"
21 psf	240	9'-4"	10'-10"	11'-6"	9'-9"	11'-1"	12'-0"	13'-7"	14'-0"	14'-9"	17'-2"
26 psf	120	11'-0"	12'-9"	12'-9"	11'-6"	13'-1"	14'-1"	14'-5"	16'-0"	17'-4"	18'-4"
26 psf	180	9'-7"	11'-2"	11'-11"	10'-1"	11'-5"	12'-4"	14'-1"	14'-5"	15'-2"	17'-8"
26 psf	240	8'-9"	10'-2"	10'-10"	9'-2"	10'-4"	11'-2"	12'-9"	13'-1"	13'-9"	16'-1"
31 psf	120	10'-5"	11'-10"	11'-8"	10'-10"	12'-4"	13'-3"	13'-3"	14'-8"	15'-10"	16'-10"
31 psf	180	9'-1"	10'-6"	11'-3"	9'-6"	10'-9"	11'-7"	13'-3"	13'-7"	14'-4"	16'-8"
31 psf	240	8'-3"	9'-7"	10'-2"	8'-7"	9'-9"	10'-7"	12'-1"	12'-4"	13'-0"	15'-2"
36 psf	120	9'-10"	11'-0"	10'-9"	10'-4"	11'-4"	12'-3"	12'-2"	13'-7"	14'-8"	15'-6"
36 psf	180	8'-7"	10'-0"	10'-8"	9'-0"	10'-2"	11'-0"	12'-2"	12'-11"	13'-7"	15'-6"
36 psf	240	7'-10"	9'-1"	9'-8"	8'-2"	9'-3"	10'-0"	11'-5"	11'-9"	12'-4"	14'-5"
42 psf	120	9'-5"	10'-2"	10'-0"	9'-10"	10'-7"	11'-4"	11'-4"	12'-7"	13'-7"	14'-5"
42 psf	180	8'-2"	9'-6"	10'-0"	8'-7"	9'-9"	10'-6"	11'-4"	12'-3"	13'-0"	14'-5"
42 psf	240	7'-5"	8'-8"	9'-2"	7'-9"	8'-10"	9'-6"	10'-11"	11'-2"	11'-9"	13'-8"
48 psf	120	8'-10"	9'-6"	9'-4"	9'-4"	9'-10"	10'-7"	10'-7"	11'-9"	12'-8"	13'-5"
48 psf	180	7'-10"	9'-1"	9'-4"	8'-2"	9'-3"	10'-0"	10'-7"	11'-9"	12'-4"	13'-5"
48 psf	240	7'-1"	8'-3"	8'-9"	7'-5"	8'-5"	9'-1"	10'-5"	10'-8"	11'-3"	13'-1"
58 psf	120	8'-1"	8'-7"	8'-6"	8'-9"	9'-0"	9'-8"	9'-7"	10'-8"	11'-7"	12'-3"
58 psf	180	7'-4"	8'-6"	8'-6"	7'-8"	8'-9"	9'-5"	9'-7"	10'-8"	11'-7"	12'-3"
58 psf	240	6'-8"	7'-9"	8'-3"	7'-0"	8'-0"	8'-6"	9'-7"	10'-0"	10'-6"	12'-3"
76 psf	120	7'-0"	7'-6"	7'-5"	7'-9"	7'-10"	8'-5"	8'-4"	9'-4"	10'-1"	10'-8"
76 psf	180	6'-8"	7'-6"	7'-5"	7'-0"	7'-10"	8'-5"	8'-4"	9'-4"	10'-1"	10'-8"
76 psf	240	6'-1"	7'-1"	7'-5"	6'-4"	7'-3"	7'-9"	8'-4"	9'-1"	9'-7"	10'-8"



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REMARKS	DATE	DRWN	CHKD
INITISSUE (14-1712)	7-18-14	TSB	TSB
2018 IBC	7/28/20	RWN	RWN

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