

EPS FOAM CORE ROOF PANELS

OSB / ALUMINUM SKIN

MAXIMUM ALLOWABLE
DESIGN PRESSURES:

AS NOTED IN CLEAR
SPAN TABLES

DESIGN NOTES:

POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. SITE-SPECIFIC PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7-10 & THE GOVERNING CODE SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN, WHICH HAVE BEEN CALCULATED PER ALLOWABLE STRESS DESIGN METHODOLOGY.

GENERAL NOTES:

- THIS SPECIFICATION HAS BEEN DESIGNED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2012 INTERNATIONAL BUILDING CODE & 2012 INTERNATIONAL 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.
- THE FLORIDA SEAL OF THIS ENGINEER CERTIFIES THIS DOCUMENT IS COMPLIANT WITH GOVERNING CODES LISTED HEREIN. THIS DESIGN UNDER A FLORIDA SEAL SHALL BE USED ONLY WHERE PERMITTED BY LAW AND ACCEPTED. INDIVIDUAL STATE CERTIFICATIONS OTHER THAN FLORIDA ARE AVAILABLE UNDER SEPARATE SEAL ONLY IN STATES TO WHICH WE ARE LICENSED. SEISMIC DESIGN HAS NOT BEEN CONSIDERED.
- THIS DOCUMENT IS ONLY VALID WITH ORIGINAL SIGNATURE AND SEAL OF FRANK L. BENNARDO, P.E. AND WITH A RED 'ELITE' STAMP ACROSS THE DOCUMENT FACE. ALTERATIONS, ADDITIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE OUR CERTIFICATION.
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM.
- 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.
- 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.
- 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 LICENSED ENGINEER OR REGISTERED ARCHITECT.
- EPS CORE COMPOSITE PANELS SHALL BE CONSTRUCTED USING TYPE 3105-H154 ALUMINUM & 5/8" HUBER INDUSTRIAL PANEL FACINGS, 1.0 PCF EPS. THE EPS FOAM SHALL BE ADHERED TO THE FACINGS WITH ISOGRIP SP 2020 ADHESIVE (BY ASHLAND SPECIALTY). FABRICATION SHALL BE IN ACCORDANCE WITH APPROVED FABRICATION METHODS BY MANUFACTURER FOR ALL PANELS. THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- HUBER INDUSTRIAL PANEL SHEATHING PANELS SHALL BE MANUFACTURED IN CONFORMANCE WITH PS-2, "PERFORMANCE STANDARD FOR WOOD-BASED STRUCTURAL-USE PANELS" AS VERIFIED BY OTHERS. PANELS CERTIFIED TO PS-2 ARE ACCEPTED BY THE ICC-ES REPORT AS PROVIDED IN ER-5637. 10925 DAVID TAYLOR DRIVE, SUITE 300 CHARLOTTE, NC 28262. 1-800-933-9220
- 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.
- 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.
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
- ALTERATIONS, ADDITIONS OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.

OTHER CONSIDERATIONS:

- FRONT OVERHANG MAY BE UP TO 3'-0" WITH VALUES LISTED HEREIN. MAXIMUM UNSUPPORTED SIDE OVERHANG IS 25% OF LAST PANEL WIDTH (i.e. 12" MAX FOR 48" PANEL WIDTH).
- APPROVED ROOF PITCH IS 2-1/2:12 MIN.
- 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.
- DESIGN PRESSURES SHALL BE CALCULATED BY A LICENSED PROFESSIONAL ENGINEER.

TABLE VALUE DERIVATIONS:

PANEL PROPERTIES:

- PANEL STRUCTURAL PROPERTIES DERIVED FROM CERTIFIED TEST REPORTS Nos. HETI-05-2025, -05-2026, -05-2027, -05-2028, -05-2032, -05-2033, -05-2034, -05-2035 BY HURRICANE ENGINEERING & TESTING, Inc.
- PANEL DEAD LOADS (EXCLUSIVE OF WEATHER-RESISTANT ROOFING MATERIALS) HAVE BEEN FACTORED INTO CALCULATIONS FOR GRAVITY LOADS AS WELL AS CALCULATIONS FOR PANEL PROPERTIES.

MAXIMUM ALLOWABLE CLEAR SPAN TABLES

ROOFS OVER OPEN & SCREENED ENCLOSURES	Live Load or Uplift	Deflection Limit	4" Panels		6" Panels	
			0.024" Alum Skin	0.030" Alum Skin	0.024" Alum Skin	0.030" Alum Skin
			1-lb EPS	1-lb EPS	1-lb EPS	1-lb EPS
10 psf	L / 120	17'-5"	18'-11"	22'-2"	23'-8"	
15 psf	L / 120	15'-3"	16'-6"	19'-9"	21'-3"	
20 psf	L / 120	13'-10"	15'-0"	17'-11"	19'-4"	
25 psf	L / 120	12'-10"	13'-11"	16'-7"	17'-11"	
30 psf	L / 120	12'-1"	13'-1"	15'-8"	16'-10"	
35 psf	L / 120	11'-6"	12'-5"	14'-10"	16'-0"	
40 psf	L / 120	10'-12"	11'-11"	14'-3"	15'-4"	
45 psf	L / 120	10'-7"	11'-5"	13'-8"	14'-9"	
50 psf	L / 120	10'-2"	11'-1"	13'-2"	14'-3"	
55 psf	L / 120	9'-10"	10'-9"	12'-9"	13'-9"	
60 psf	L / 120	9'-7"	10'-5"	12'-5"	13'-5"	
65 psf	L / 120	9'-4"	10'-2"	12'-1"	13'-0"	
70 psf	L / 120	9'-1"	9'-10"	11'-10"	12'-9"	
75 psf	L / 120	8'-8"	9'-2"	11'-6"	12'-5"	
80 psf	L / 120	8'-2"	8'-7"	11'-3"	12'-2"	

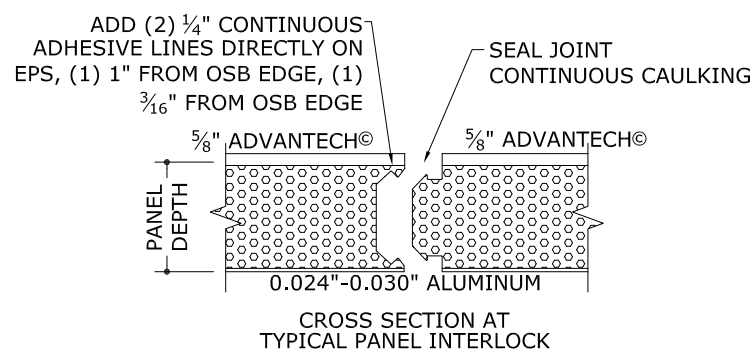


TABLE USE INSTRUCTIONS:

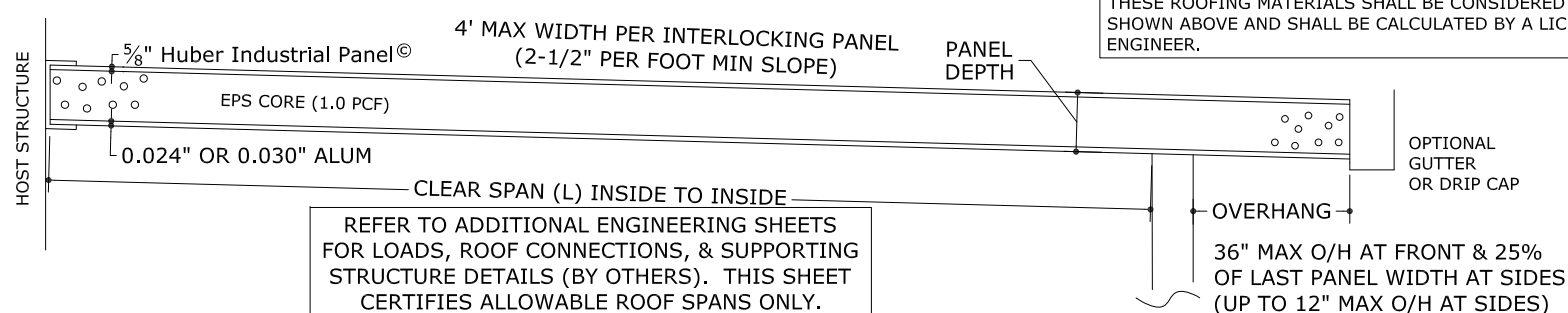
- DETERMINE TYPE OF ENCLOSURE TO BE COVERED (OPEN, SCREENED WALLS, OR FULLY ENCLOSED).
- DETERMINE THE SITE SPECIFIC REQUIRED DESIGN LOAD PROVIDED BY SEPARATE ENGINEERING, BY A LICENSED ENGINEER OR REGISTERED ARCHITECT, IN ACCORDANCE WITH THE GOVERNING CODE.
- FIND ALLOWABLE OSB PANEL CLEAR SPAN IN TABLES FOR APPROPRIATE PANEL DEPTH, FACING THICKNESS, AND EPS CORE DENSITY SELECTED.

ROOFS OVER ENCLOSED STRUCTURES	Total Roof Load	Deflection Limit	4" Panels		6" Panels	
			0.024" Alum Skin	0.032" Alum Skin	0.024" Alum Skin	0.032" Alum Skin
			1-lb EPS	1-lb EPS	1-lb EPS	1-lb EPS
10 psf	L / 180	15'-3"	16'-6"	19'-9"	21'-3"	
	L / 240	13'-10"	15'-0"	17'-11"	19'-4"	
15 psf	L / 180	13'-3"	14'-5"	17'-3"	18'-7"	
	L / 240	12'-1"	13'-1"	15'-8"	16'-10"	
20 psf	L / 180	12'-1"	13'-1"	15'-8"	16'-10"	
	L / 240	10'-12"	11'-11"	14'-3"	15'-4"	
25 psf	L / 180	11'-3"	12'-2"	14'-6"	15'-8"	
	L / 240	10'-2"	11'-1"	13'-2"	14'-3"	
30 psf	L / 180	10'-7"	11'-5"	13'-8"	14'-9"	
	L / 240	9'-7"	10'-5"	12'-5"	13'-5"	
35 psf	L / 180	10'-0"	10'-11"	12'-12"	13'-12"	
	L / 240	9'-1"	9'-11"	11'-10"	12'-9"	
40 psf	L / 180	9'-7"	10'-5"	12'-5"	13'-5"	
	L / 240	8'-8"	9'-5"	11'-3"	12'-2"	
45 psf	L / 180	9'-3"	10'-0"	11'-11"	12'-10"	
	L / 240	8'-4"	9'-1"	10'-10"	11'-8"	
50 psf	L / 180	8'-11"	9'-8"	11'-6"	12'-5"	
	L / 240	8'-1"	8'-9"	10'-6"	11'-3"	
55 psf	L / 180	8'-7"	9'-4"	11'-2"	12'-0"	
	L / 240	7'-10"	8'-6"	10'-2"	10'-11"	
60 psf	L / 180	8'-4"	9'-1"	10'-10"	11'-8"	
	L / 240	7'-7"	8'-3"	9'-10"	10'-7"	
65 psf	L / 180	8'-2"	8'-10"	10'-7"	11'-5"	
	L / 240	7'-5"	8'-1"	9'-7"	10'-4"	
70 psf	L / 180	7'-11"	8'-8"	10'-4"	11'-1"	
	L / 240	7'-3"	7'-10"	9'-4"	10'-1"	
75 psf	L / 180	7'-9"	8'-5"	10'-1"	10'-10"	
	L / 240	7'-1"	7'-8"	9'-2"	9'-10"	
80 psf	L / 180	7'-7"	8'-3"	9'-10"	10'-7"	
	L / 240	6'-11"	7'-6"	8'-11"	9'-8"	

DEFLECTION NOTES:

- 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.

EPS ROOF PANEL SPAN DETAIL:



NOTE: SHINGLES AND/OR OTHER APPROVED WEATHER MEMBRANE SHALL BE AFFIXED TO THE OSB TOP PER MFR. SPECIFICATIONS. DEAD LOADS DUE TO THESE ROOFING MATERIALS SHALL BE CONSIDERED IN ADDITION TO LOADS SHOWN ABOVE AND SHALL BE CALCULATED BY A LICENSED PROFESSIONAL ENGINEER.

FRANK L. BENNARDO, P.E.
PE0046549

IBC

VALID FOR (1) JOB(S) ONLY
VALID ONLY WITH RAISED ENGINEER SEAL

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Building Innovation
ELITE
Panel Products

EPS FOAM CORE COMPOSITE ROOF PANELS
OSB / ALUMINUM SKIN
2012 IBC COMPLIANT

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	FLB	FLB	08/12/02
2003 IBC	CTS	CL	07/09/07
REV FOR 09 IBC	TSB	FLB	07/30/10
REV FOR 2012 IBC	C/S	TSB	11/05/12

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SCALE: 1/8" = 1'-0"

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