

EPS FOAM CORE ROOF PANELS

ALUMINUM / ALUMINUM SKIN

MAXIMUM ALLOWABLE CLEAR SPAN TABLES

Live Load &/or Uplift	Deflection Limit	3" Panels		4" Panels		6" Panels	
		0.024" Alum Skin	1-lb EPS	0.024" Alum Skin	1-lb EPS	0.024" Alum Skin	1-lb EPS
10 psf	L/120	15'-1"	16'-2"	19'-0"	19'-0"	24'-0"	24'-0"
15 psf	L/120	13'-2"	14'-2"	17'-7"	17'-7"	21'-4"	21'-4"
20 psf	L/120	12'-0"	13'-10"	16'-11"	15'-11"	19'-5"	19'-5"
25 psf	L/120	11'-1"	12'-10"	15'-11"	14'-8"	17'-5"	17'-5"
30 psf	L/120	10'-5"	11'-2"	13'-5"	13'-5"	15'-11"	15'-11"
35 psf	L/120	9'-11"	10'-8"	12'-5"	12'-5"	14'-9"	14'-9"
40 psf	L/120	9'-4"	10'-0"	11'-7"	11'-7"	13'-9"	13'-9"
45 psf	L/120	8'-10"	9'-5"	10'-11"	10'-11"	13'-0"	13'-0"
50 psf	L/120	8'-4"	8'-11"	10'-4"	10'-4"	12'-4"	12'-4"
55 psf	L/120	7'-11"	8'-6"	9'-10"	9'-10"	11'-9"	11'-9"
60 psf	L/120	7'-7"	8'-2"	9'-5"	9'-5"	11'-3"	11'-3"
65 psf	L/120	7'-0"	7'-10"	9'-0"	9'-0"	10'-10"	10'-10"
70 psf	L/120	7'-0"	7'-7"	8'-5"	8'-6"	10'-5"	10'-5"
75 psf	L/120	6'-7"	7'-4"	7'-10"	8'-2"	10'-1"	10'-1"
80 psf	L/120	6'-2"	6'-11"	7'-4"	7'-11"	9'-9"	9'-9"

Live Load &/or Uplift	Deflection Limit	3" Panels		4" Panels		6" Panels	
		0.024" Alum Skin	2-lb EPS	0.024" Alum Skin	2-lb EPS	0.024" Alum Skin	2-lb EPS
10 psf	L/120	17'-5"	17'-5"	20'-3"	20'-10"	24'-0"	24'-0"
15 psf	L/120	15'-2"	15'-2"	17'-8"	18'-2"	23'-7"	23'-7"
20 psf	L/120	13'-10"	13'-10"	16'-1"	16'-6"	20'-8"	20'-8"
25 psf	L/120	12'-10"	12'-10"	14'-8"	15'-4"	18'-6"	18'-6"
30 psf	L/120	12'-1"	12'-1"	13'-5"	14'-5"	16'-10"	16'-10"
35 psf	L/120	11'-3"	11'-3"	12'-5"	13'-8"	15'-7"	15'-7"
40 psf	L/120	10'-6"	10'-6"	11'-7"	13'-1"	15'-6"	15'-6"
45 psf	L/120	9'-11"	9'-11"	10'-11"	12'-7"	14'-10"	14'-10"
50 psf	L/120	9'-4"	9'-4"	10'-4"	12'-2"	14'-0"	14'-0"
55 psf	L/120	8'-11"	8'-11"	9'-10"	11'-9"	13'-5"	13'-5"
60 psf	L/120	8'-7"	8'-8"	9'-5"	11'-5"	12'-10"	12'-10"
65 psf	L/120	8'-3"	8'-4"	9'-0"	11'-1"	12'-4"	12'-4"
70 psf	L/120	7'-11"	8'-1"	8'-7"	10'-10"	11'-10"	11'-10"
75 psf	L/120	7'-8"	7'-9"	8'-4"	10'-6"	11'-5"	11'-5"
80 psf	L/120	7'-5"	7'-6"	8'-0"	10'-2"	10'-8"	10'-8"

GENERAL NOTES

- THIS DETAIL 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, HIGHLIGHTING, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE OUR CERTIFICATION.
- THIS SPECIFICATION HAS BEEN DESIGNED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2006 INTERNATIONAL BUILDING CODE & 2006 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.
- DESIGN CRITERIA VALID FOR SHORT AND LONG TERM LOADING (WIND AND SNOW). GC USED IN DESIGN = 300psf. DESIGN SHOWN HEREIN CONSIDERS BALANCED SNOW LOADS ONLY. PRESSURES DERIVED FROM GOVERNING WIND PRESSURE ANALYSIS (ASCE 7-05), AND 2006 IBC SEISMIC CATEGORIES 'C' & 'D' FOR LOADS SPECIFIED, UP TO 12' ROOF SPAN, 40PSF ROOF LOAD, 10' WALL HEIGHT, $I_E=1.0$, $n=1$, $\alpha=0.02$, $x=0.75$, AND R=2. SITE SPECIFIC ENGINEERING IS REQUIRED FOR ANY ROOF THAT EXCEEDS THE ABOVE STATED PARAMETERS. THIS SYSTEM.
- 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-H154 ALUMINUM FACINGS, 1.0 PCF OR 2.0 PCF EPS. THE EPS FOAM SHALL BE ADHERED TO THE ALUMINUM FACINGS WITH ISOGRIP SP 2020 ADHESIVE (BY ASHLAND SPECIALTY). FABRICATION SHALL BE IN ACCORDANCE WITH APPROVED FABRICATION METHODS BY MANUFACTURER FOR ALL PANELS.
- ENGINEER'S SEAL AFFIXED HERETO VALIDATES DESIGN OF SPAN CHART VALUES AS SHOWN ONLY. USE OF THIS SPECIFICATION BY ELITE, 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.
- THIS ENGINEER HAS NOT VISITED THIS JOB-SITE. INFORMATION CONTAINED HEREIN IS GENERIC AND DOES NOT PERTAIN TO ANY SPECIFIC PROJECT LOCATION. THIS ENGINEER SHALL NOT BE HELD RESPONSIBLE OR LIABLE IN ANY WAY FOR ERRONEOUS OR INACCURATE DATA OR MEASUREMENTS.
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

TABLE USE INSTRUCTIONS

- CHOOSE TYPE OF ENCLOSURE TO BE COVERED (OPEN, SCREENED WALLS, OR FULLY ENCLOSED).
- VERIFY APPROPRIATE DESIGN LOAD WITH GOVERNING MUNICIPALITY AND BUILDING CODES IN EFFECT FOR THE PROJECT LOCATION USING 2006 INTERNATIONAL BUILDING CODE. SEPARATE ENGINEERING MAY BE REQUIRED FOR ALTERNATE DESIGN LOADS.
- FIND ALLOWABLE COMPOSITE PANEL LOAD IN TABLES FOR APPROPRIATE PANEL DEPTH, FACING THICKNESS, AND EPS CORE DENSITY SELECTED.

DEFLECTION NOTES

- (RECOMMENDED. VERIFY WITH LOCAL JURISDICTION)
- 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.

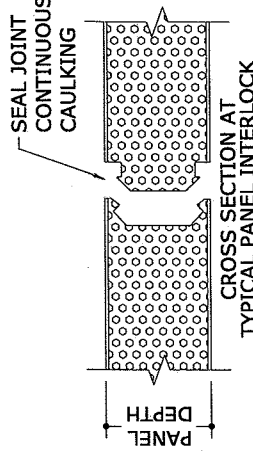
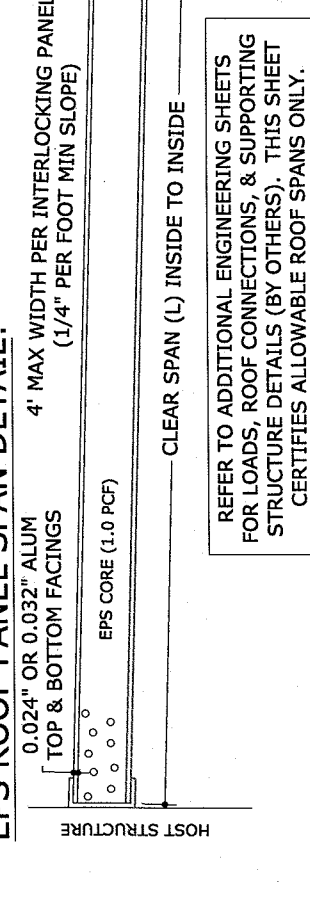
OTHER CONSIDERATIONS:

- 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.
- DESIGN PRESSURES SHALL BE CALCULATED BY A LICENSED PROFESSIONAL ENGINEER.

TABLE VALUE DERIVATIONS:

- PANEL PROPERTIES:
- PANEL STRUCTURAL PROPERTIES DERIVED FROM CERTIFIED TEST REPORTS (REPORT Nos. HETI-05-1985, HETI-05-1987, HETI-05-1988, HETI-05-1989, HETI-05-1990, HETI-05-1991, HETI-05-1992, HETI-05-1993, HETI-05-1994, HETI-05-1995, HETI-05-1996, HETI-05-1997, HETI-06-2066, HETI-06-2067, HETI-06-2068, HETI-06-2069, HETI-06-2070, HETI-06-2071, HETI-06-2072, HETI-06-2073, HETI-06-2074, HETI-06-2048, HETI-05-2040, HETI-05-2041, HETI-05-2041, HETI-05-2048, HETI-03-1298, HETI-03-1301, HETI-03-1303, HETI-05-2036, HETI-05-2065, HETI-05-2039, HETI-05-1302, HETI-05-1296, HETI-03-1299, HETI-03-1302, HETI-05-2036, HETI-03-2031, HETI-03-1297, HETI-03-1300, HETI-05-2037, & HETI-05-2029 BY HURRICANE ENGINEERING & TESTING, Inc., FL)
 - PANEL DEAD LOADS HAVE BEEN FACTORED INTO CALCULATIONS FOR GRAVITY LOADS AS WELL AS CALCULATIONS FOR PANEL PROPERTIES.

EPS ROOF PANEL SPAN DETAIL:



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VALID ONLY WITH RAISED ENGINEER SEAL

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REMARKS

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