

# Engineering Information

## PBR ECO-4

### PBR ECO-4 SECTION AND STRENGTH PROPERTIES

METAL THICKNESS		WEIGHT (PSF)	DECK TOP IN COMPRESSION			DECK BOTTOM IN COMPRESSION		
GAUGE	INCH		lxe inch <sup>4</sup> /foot	Ma inch-k/foot	Va k/foot	lxe inch <sup>4</sup> /foot	Ma inch-k/foot	Va k/foot
26	0.0179	0.849	0.0357	1.707	0.662	0.0287	2.150	0.662

### ALLOWABLE UNIFORM LIVE LOADS FOR PBR ECO-4

PBR ECO-4 26 GAUGE, .0179 IN (fy = 80 KSI)							
SPAN TYPE	LOAD TYPE	SPAN IN FEET					
		2	3	4	5	6	7
SIMPLE	NEGATIVE WIND LOAD	477.7	212.3	119.4	76.4	53.1	39.0
	LIVE LOAD/DEFLECTION	284.5	86.7	36.6	18.7	10.8	6.8
2-SPAN	NEGATIVE WIND LOAD	334.1	158.7	91.6	59.3	41.5	30.6
	LIVE LOAD/DEFLECTION	296.8	145.2	70.8	36.3	21.0	13.2
3-SPAN	NEGATIVE WIND LOAD	398.4	193.6	112.8	73.4	51.5	38.1
	LIVE LOAD/DEFLECTION	347.7	131.5	55.5	28.4	16.4	10.4
4-SPAN OR MORE	NEGATIVE WIND LOAD	378.0	182.3	105.9	68.8	48.2	35.6
	LIVE LOAD/DEFLECTION	331.9	139.6	58.9	30.2	17.4	11.0

## ECO-RIB 5

### ECO-RIB 5 SECTION AND STRENGTH PROPERTIES

METAL THICKNESS		WEIGHT (PSF)	DECK TOP IN COMPRESSION			DECK BOTTOM IN COMPRESSION		
GAUGE	INCH		lxe inch <sup>4</sup> /foot	Ma inch-k/foot	Va k/foot	lxe inch <sup>4</sup> /foot	Ma inch-k/foot	Va k/foot
29	0.0135	0.635	0.0100	0.788	0.711	0.0063	0.680	0.711
26	0.0179	0.839	0.0130	1.033	0.927	0.0087	0.910	0.927

### ALLOWABLE UNIFORM LIVE LOADS FOR ECO-RIB 5

ECO-RIB 5 29 GAUGE, .0135 IN (fy = 80 KSI)							
SPAN TYPE	LOAD TYPE	SPAN IN FEET					
		2	3	4	4.5	5	5.5
SIMPLE	NEGATIVE WIND LOAD	151.1	67.1	37.8	29.8	24.2	20.0
	LIVE LOAD/DEFLECTION	81.9	24.3	10.2	7.2	5.2	3.9
2-SPAN	NEGATIVE WIND LOAD	170.5	76.9	43.5	34.4	27.9	23.1
	LIVE LOAD/DEFLECTION	111.2	37.0	15.6	11.0	8.0	6.0
3-SPAN	NEGATIVE WIND LOAD	210.8	95.6	54.2	42.9	34.8	28.8
	LIVE LOAD/DEFLECTION	97.9	29.0	12.2	8.6	6.3	4.7
4-SPAN OR MORE	NEGATIVE WIND LOAD	197.6	89.4	50.6	40.1	32.5	26.9
	LIVE LOAD/DEFLECTION	104.0	30.8	13.0	9.1	6.7	5.0

ECO-RIB 5 26 GAUGE, .0179 IN (fy = 80 KSI)							
SPAN TYPE	LOAD TYPE	SPAN IN FEET					
		2	3	4	4.5	5	5.5
SIMPLE	NEGATIVE WIND LOAD	202.2	89.9	50.5	39.9	32.3	26.7
	LIVE LOAD/DEFLECTION	106.5	31.6	13.3	9.4	6.8	5.1
2-SPAN	NEGATIVE WIND LOAD	223.6	100.8	57.0	45.1	36.6	30.2
	LIVE LOAD/DEFLECTION	148.6	50.7	21.4	15.0	10.9	8.2
3-SPAN	NEGATIVE WIND LOAD	276.4	125.4	71.1	56.3	45.6	37.8
	LIVE LOAD/DEFLECTION	134.0	39.7	16.8	11.8	8.6	6.4
4-SPAN OR MORE	NEGATIVE WIND LOAD	259.1	117.3	66.4	52.6	42.6	35.3
	LIVE LOAD/DEFLECTION	142.3	42.2	17.8	12.5	9.1	6.8

# C-PANELS

## C-PANEL SECTION AND STRENGTH PROPERTIES

METAL THICKNESS		WEIGHT	DECK TOP IN COMPRESSION			DECK BOTTOM IN COMPRESSION		
GAUGE	INCH	(PSF)	I <sub>xe</sub> inch <sup>4</sup> /foot	M <sub>a</sub> inch-k/foot	V <sub>a</sub> k/foot	I <sub>xe</sub> inch <sup>4</sup> /foot	M <sub>a</sub> inch-k/foot	V <sub>a</sub> k/foot
29	0.0135	0.634	0.0055	1.033	1.147	0.0055	0.951	1.147
26	0.0179	0.840	0.0075	1.371	1.749	0.0075	1.289	1.749

## ALLOWABLE UNIFORM LIVE LOADS FOR C-PANEL

C-PANEL 29 GAUGE, .0135 IN (fy = 80 KSI)							
SPAN TYPE	LOAD TYPE	SPAN IN FEET					
		1	2	3	4	5	6
SIMPLE	NEGATIVE WIND LOAD	845.1	211.3	93.9	52.8	33.8	23.5
	LIVE LOAD/DEFLECTION	360.6	45.1	13.4	5.6	2.9	1.7
2-SPAN	NEGATIVE WIND LOAD	859.5	225.6	101.2	57.1	36.6	25.5
	LIVE LOAD/DEFLECTION	599.2	108.6	32.2	13.6	6.9	4.0
3-SPAN	NEGATIVE WIND LOAD	1046.3	279.9	126.1	71.3	45.7	31.8
	LIVE LOAD/DEFLECTION	680.4	85.0	25.2	10.6	5.4	3.1
4-SPAN OR MORE	NEGATIVE WIND LOAD	985.9	262.0	117.9	66.6	42.7	29.7
	LIVE LOAD/DEFLECTION	689.0	90.3	26.8	11.3	5.8	3.3

C- PANEL 26 GAUGE, .0179 IN (fy = 80 KSI)							
SPAN TYPE	LOAD TYPE	SPAN IN FEET					
		1	2	3	4	5	6
SIMPLE	NEGATIVE WIND LOAD	1145.5	286.4	127.3	71.6	45.8	31.8
	LIVE LOAD/DEFLECTION	491.7	61.5	18.2	7.7	3.9	2.3
2-SPAN	NEGATIVE WIND LOAD	1158.2	300.6	134.6	75.9	48.6	33.8
	LIVE LOAD/DEFLECTION	821.5	148.0	43.9	18.5	9.5	5.5
3-SPAN	NEGATIVE WIND LOAD	1417.9	373.6	167.8	94.7	60.7	42.2
	LIVE LOAD/DEFLECTION	927.8	116.0	34.4	14.5	7.4	4.3
4-SPAN OR MORE	NEGATIVE WIND LOAD	1333.5	349.6	156.8	88.5	56.7	39.4
	LIVE LOAD/DEFLECTION	947.2	123.1	36.5	15.4	7.9	4.6