



UCPS University I-Beam Stiffener Matrix Chart

Universal Composite Panel System's ACM Panel Stiffener Recommendations for FR Core Panels at L/80

RB160FR-4mm Panel													
Panel Size		Wind Pressure (PSF)											
Height (ft)	Length (ft)												
		20	25	30	35	40	45	50	55	60	65	70	75
2'-0"	2'-0"	NSR	NSR	NSR	NSR	NSR	NSR	NSR	NSR	NSR	1	1	1
	4'-0"	NSR	NSR	NSR	NSR	1	1	1	1	1	1	1	1
	6'-0"	NSR	NSR	NSR	NSR	NSR	NSR	1	1	1	1	1	2
	8'-0"	NSR	NSR	NSR	NSR	NSR	NSR	NSR	NSR	1	1	1	2
	10'-0"	NSR	NSR	NSR	NSR	NSR	NSR	NSR	NSR	NSR	NSR	2	2
3'-0"	2'-0"	NSR	NSR	NSR	NSR	NSR	1	1	1	1	1	1	1
	4'-0"	1	1	1	1	1	1	1	1	2	2	2	2
	6'-0"	1	1	2	2	2	2	2	2	2	2	2	2
	8'-0"	1	2	2	2	2	2	3	3	3	3	3	3
	10'-0"	2	2	3	3	3	3	3	3	4	4	4	4
4'-0"	2'-0"	NSR	NSR	NSR	NSR	1	1	1	1	1	1	1	1
	4'-0"	1	1	1	1	1	1	1	2	2	2	2	2
	6'-0"	2	2	2	2	2	2	2	2	2	3	3	3
	8'-0"	2	2	2	3	3	3	3	3	3	4	4	5
	10'-0"	3	3	3	3	4	4	4	4	4	5	5	6
5'-0"	2'-0"	NSR	NSR	NSR	NSR	NSR	1	1	1	1	1	1	2
	4'-0"	1	2	2	2	2	2	2	2	3	3	3	3
	6'-0"	2	2	2	3	3	4	5	5	5	7	7	7
	8'-0"	2	3	3	4	5	5	6	6	7	9	9	9
	10'-0"	3	3	4	5	6	7	8	8	9	11	11	11

Notes:

1. "NSR" means No Stiffeners Required
2. Deflection limit based upon L/80 where "L" is the diagonal length of the panel in inches, 1.5" max
3. Stiffener recommendations based upon Reynobond's Fire Resistant (FR) core panel properties/performance
4. Stiffener to be 6063-T6 aluminum or better
5. Stiffeners span the short panel dimension
6. Stiffener to be evenly spaced along the long side of the panel

Universal Composite Panel System's ACM Panel Stiffener Recommendations for FR Core Panels at L/180

RB160FR-4mm Panel													
Panel Size		Wind Pressure (PSF)											
Height (ft)	Length (ft)												
		20	25	30	35	40	45	50	55	60	65	70	75
2'-0"	2'-0"	NSR	NSR	1	1	1	1	1	1	1	1	1	1
	4'-0"	1	1	1	1	1	2	2	2	2	2	2	2
	6'-0"	NSR	1	1	2	2	2	2	2	2	3	3	3
	8'-0"	NSR	NSR	1	2	2	2	2	3	3	3	3	3
	10'-0"	NSR	NSR	NSR	2	2	3	3	3	3	4	4	4
3'-0"	2'-0"	1	1	1	1	2	2	2	2	2	2	2	2
	4'-0"	1	1	2	2	2	2	2	2	2	2	2	2
	6'-0"	2	2	2	2	3	3	3	3	3	4	4	4
	8'-0"	2	3	3	3	3	4	4	4	4	4	4	4
	10'-0"	3	3	4	4	4	4	4	5	5	5	5	5
4'-0"	2'-0"	1	1	1	1	1	2	2	2	2	2	2	2
	4'-0"	1	2	2	2	2	3	3	3	4	4	5	5
	6'-0"	2	2	3	3	4	5	5	5	7	7	8	8
	8'-0"	3	3	3	4	5	7	7	7	9	9	11	11
	10'-0"	3	3	4	5	7	9	9	9	11	11	14	14
5'-0"	2'-0"	1	1	1	2	2	2	2	2	2	2	2	2
	4'-0"	2	2	2	2	3	4	4	4	5	5	7	7
	6'-0"	4	5	7	8	8	11	11	11	17	17	17	17
	8'-0"	5	7	9	11	11	15	15	15	23	23	23	23
	10'-0"	7	9	11	14	14	19	19	19	29	29	29	29

Notes:

1. "NSR" means No Stiffeners Required
2. Deflection limit based upon L/180 where "L" is the diagonal length of the panel in inches, 1.5" max
3. Stiffener recommendations based upon Reynobond's Fire Resistant (FR) core panel properties/performance
4. Stiffener to be 6063-T6 aluminum or better
5. Stiffeners span the short panel dimension
6. Stiffener to be evenly spaced along the long side of the panel

Universal Composite Panel System's ACM Panel Stiffener Recommendations for FR Core Panels at L/360

RB160FR-4mm Panel													
Panel Size		Wind Pressure (PSF)											
Height (ft)	Length (ft)	No. of I-Beam Stiffeners Req.											
		20	25	30	35	40	45	50	55	60	65	70	75
2'-0"	2'-0"	1	1	1	1	1	1	1	1	1	1	1	1
	4'-0"	1	2	2	2	2	2	2	2	3	3	3	3
	6'-0"	2	2	2	3	3	3	3	3	3	4	4	4
	8'-0"	2	2	3	3	3	4	4	4	4	5	5	5
	10'-0"	3	3	3	4	4	4	4	5	5	5	5	5
3'-0"	2'-0"	1	1	1	2	2	2	2	2	2	2	2	2
	4'-0"	2	2	2	2	2	2	3	3	3	3	4	4
	6'-0"	3	3	3	3	3	4	4	5	5	5	7	7
	8'-0"	3	4	4	4	5	5	5	7	7	7	9	9
	10'-0"	4	4	5	5	5	7	7	9	9	9	11	11
4'-0"	2'-0"	1	2	2	2	2	2	2	2	3	3	3	3
	4'-0"	2	3	4	5	5	7	7	7	11	11	11	11
	6'-0"	4	5	7	8	8	11	11	11	17	17	17	17
	8'-0"	5	7	9	11	11	15	15	15	23	23	23	23
	10'-0"	7	9	11	14	14	19	19	19	29	29	29	29
5'-0"	2'-0"	2	2	2	2	3	3	3	3	3	3	3	4
	4'-0"	3	4	5	7	7	9	9	9	14	14	14	14
	6'-0"	8	11	17	17	17	35	35	35	35	35	35	35
	8'-0"	11	15	23	23	23	47	47	47	47	47	47	47
	10'-0"	14	19	29	29	29	59	59	59	59	59	59	59

Notes:

1. "NSR" means No Stiffeners Required
2. Deflection limit based upon L/360 where "L" is the diagonal length of the panel in inches, 1.5" max
3. Stiffener recommendations based upon Reynobond's Fire Resistant (FR) core panel properties/performance
4. Stiffener to be 6063-T6 aluminum or better
5. Stiffeners span the short panel dimension
6. Stiffener to be evenly spaced along the long side of the panel