



# 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)	No. of 1-Beams Stiffeners Req.											
		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
	2'-0"	4'-0"	NSR	NSR	NSR	NSR	1	1	1	1	1	1	1
	2'-0"	6'-0"	NSR	NSR	NSR	NSR	NSR	NSR	1	1	1	1	2
	2'-0"	8'-0"	NSR	1	1	2							
	2'-0"	10'-0"	NSR	2	2								
3'-0"	2'-0"	NSR	NSR	NSR	NSR	NSR	1	1	1	1	1	1	1
	3'-0"	4'-0"	3	1	1	1	1	1	1	2	2	2	2
	3'-0"	6'-0"	3	1	2	2	2	2	2	2	2	2	2
	3'-0"	8'-0"	3	2	2	2	2	2	3	3	3	3	3
	3'-0"	10'-0"	2	2	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"	4'-0"	3	1	1	1	1	1	2	2	2	2	2
	4'-0"	6'-0"	2	2	2	2	2	2	2	2	3	3	3
	4'-0"	8'-0"	2	2	2	3	3	3	3	3	4	4	5
	4'-0"	10'-0"	3	3	3	3	4	4	4	4	5	5	6
5'-0"	2'-0"	NSR	NSR	NSR	NSR	NSR	1	1	1	1	1	1	2
	5'-0"	4'-0"	3	2	2	2	2	2	2	3	3	3	3
	5'-0"	6'-0"	2	2	2	3	3	4	3	3	5	7	7
	5'-0"	8'-0"	2	3	3	4	5	3	6	6	7	9	9
	5'-0"	10'-0"	3	3	4	5	6	7	8	8	9	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		No. of L-Beam Stiffeners Req.	Wind Pressure (PSF)												
Height (ft)	Length (ft)		20	25	30	35	40	45	50	55	60	65	70	75	
2'-0"	2'-0"	1	NSR	NSR	2	1	1	1	1	1	1	1	1	1	
	2'-0"		4'-0"	1	1	1	1	1	2	2	2	2	2	2	
	2'-0"		6'-0"	NSR	1	1	2	2	2	2	2	2	3	3	3
	2'-0"		8'-0"	NSR	NSR	1	2	2	2	2	3	3	3	3	3
	2'-0"		10'-0"	NSR	NSR	NSR	2	2	3	3	3	3	4	4	4
3'-0"	2'-0"	1	1	1	1	1	2	2	2	2	2	2	2	2	
	3'-0"		4'-0"	1	1	2	2	2	2	2	2	2	2	2	
	3'-0"		6'-0"	2	2	2	2	3	3	3	3	4	4	4	
	3'-0"		8'-0"	2	3	3	3	3	4	4	4	4	4	4	
	3'-0"		10'-0"	3	3	4	4	4	4	4	5	5	5	5	
4'-0"	2'-0"	1	1	1	1	1	1	2	2	2	2	2	2	2	
	4'-0"		4'-0"	1	2	2	2	2	3	3	3	4	4	5	5
	4'-0"		6'-0"	2	2	3	3	4	5	5	5	7	7	8	8
	4'-0"		8'-0"	3	3	3	4	5	7	7	7	8	9	11	11
	4'-0"		10'-0"	3	3	4	5	7	9	9	9	11	11	14	14
5'-0"	2'-0"	1	1	1	1	2	2	2	2	2	2	2	2	2	
	5'-0"		4'-0"	2	2	2	2	3	4	4	4	5	5	7	7
	5'-0"		6'-0"	4	5	7	8	8	11	11	11	17	17	17	17
	5'-0"		8'-0"	5	7	9	11	11	15	15	15	23	23	23	23
	5'-0"		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)													
		20	25	30	35	40	45	50	55	60	65	70	75	
No. of I-Beam Stiffeners Req.	2'-0"	2'-0"	1	1	1	1	1	1	1	1	1	1	1	
	2'-0"	4'-0"	3	2	2	2	2	2	2	3	3	3	3	
	2'-0"	6'-0"	2	2	2	3	3	3	3	3	4	4	4	
	2'-0"	8'-0"	2	2	3	3	3	4	4	4	5	5	5	
	2'-0"	10'-0"	3	3	3	4	4	4	4	5	5	5	5	
No. of I-Beam Stiffeners Req.	3'-0"	2'-0"	1	1	1	2	2	2	2	2	2	2	2	
	3'-0"	4'-0"	2	2	2	2	2	2	3	3	3	4	4	
	3'-0"	6'-0"	3	3	3	3	3	4	4	5	5	5	7	7
	3'-0"	8'-0"	3	4	4	4	5	5	5	7	7	7	9	9
	3'-0"	10'-0"	4	4	5	5	5	7	7	9	9	9	11	11
No. of I-Beam Stiffeners Req.	4'-0"	2'-0"	1	2	2	2	2	2	2	3	3	3	3	
	4'-0"	4'-0"	2	3	4	5	5	7	7	7	11	11	11	11
	4'-0"	6'-0"	4	5	7	8	8	11	11	11	17	17	17	17
	4'-0"	8'-0"	5	7	9	11	11	15	15	15	21	23	23	23
	4'-0"	10'-0"	7	9	11	14	14	19	19	19	29	29	29	29
No. of I-Beam Stiffeners Req.	5'-0"	2'-0"	2	2	2	2	3	3	3	3	3	3	4	
	5'-0"	4'-0"	3	4	5	7	7	9	9	9	14	14	14	14
	5'-0"	6'-0"	8	11	17	17	17	25	25	25	35	35	35	35
	5'-0"	8'-0"	11	15	23	23	23	47	47	47	47	47	47	47
	5'-0"	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