

## Nonmetallic - Strut systems

### Channel Loading Chart

#### Loading information

Beam loads: The charts below list the total allowable uniform load for various simple spans based on a minimum safety factor of 2.

If the load is concentrated at center span, multiply the load by 0.5 and the corresponding deflection by 0.8.

#### Channel framing loading – Beam and column data: Polyester and vinyl ester resin base

Beam span in. / (mm)	Cat. No.	Maximum allowable uniform beam load		Deflection @ Maximum allowable uniform beam load		Uniform load @ Maximum deflection = 0.25 in. (6mm)		Uniform load @ Maximum Deflection = 0.50 in. (13mm)		Maximum allowable column load lb (kg)
		Poly lb (kg)	Vinyl lb (kg)	Poly lb (kg)	Vinyl lb (kg)	Poly lb (kg)	Vinyl lb (kg)	Poly lb (kg)	Vinyl lb (kg)	
12 (304.8)	NM-SSP-100	790 (358)	990 (449)	0.11 (3)	0.12 (3)	-	-	-	-	2,550 (1,156)
	NM-SSP-158	1,720 (780)	2,150 (975)	0.07 (2)	0.07 (2)	-	-	-	-	3,650 (1,655)
	NM-SSP-158-D	5,080 (2,301)	6,350 (2,880)	0.04 (1)	0.04 (1)	-	-	-	-	7,300 (3,111)
18 (457)	NM-SSP-100	530 (240)	670 (304)	0.24 (6)	0.27 (7)	-	620 (281)	-	-	2,350 (1,066)
	NM-SSP-158	1,150 (521)	1,440 (653)	0.15 (4)	0.17 (4)	-	-	-	-	3,370 (1,528)
	NM-SSP-158-D	5,080 (2,301)	4,240 (1,923)	0.09 (2)	0.10 (2)	-	-	-	-	6,740 (3,058)
24 (609.6)	NM-SSP-100	400 (181)	500 (227)	0.43 (11)	0.48 (12)	240 (109)	270 (122)	-	-	2,070 (939)
	NM-SSP-158	860 (390)	1,080 (490)	0.27 (7)	0.30 (8)	810 (367)	910 (412)	-	-	2,960 (1,342)
	NM-SSP-158-D	2,540 (1,152)	3,180 (1,442)	0.16 (4)	0.17 (4)	-	-	-	-	5,920 (2,685)
30 (762)	NM-SSP-100	320 (145)	400 (181)	0.67 (17)	0.75 (19)	120 (54)	140 (63)	240 (109)	270 (122)	1,710 (775)
	NM-SSP-158	690 (313)	870 (394)	0.42 (11)	0.48 (12)	410 (186)	460 (209)	-	-	2,450 (1,111)
	NM-SSP-158-D	2,040 (925)	2,550 (1,156)	0.24 (6)	0.27 (7)	2,000 (907)	2,350 (1,066)	-	-	4,900 (2,222)
36 (914.4)	NM-SSP-100	270 (122)	340 (154)	0.98 (25)	1.10 (28)	70 (31)	80 (36)	140 (63)	160 (72)	1,260 (571)
	NM-SSP-158	580 (263)	730 (331)	0.61 (15)	0.69 (19)	240 (109)	270 (122)	480 (217)	540 (245)	1,800 (816)
	NM-SSP-158-D	1,700 (771)	2,130 (966)	0.35 (9)	0.39 (10)	1,220 (553)	1,370 (621)	-	-	3,600 (1,633)
42 (1066.8)	NM-SSP-100	230 (104)	290 (131)	1.32 (34)	1.49 (38)	50 (22)	55 (25)	100 (45)	115 (52)	920 (417)
	NM-SSP-158	490 (222)	620 (281)	0.82 (21)	0.92 (23)	150 (68)	170 (77)	300 (136)	340 (154)	1,320 (598)
	NM-SSP-158-D	1,460 (662)	1,830 (830)	0.48 (12)	0.62 (16)	770 (349)	870 (394)	1,510 (650)	1,720 (530)	2,640 (1,197)
48 (1219.2)	NM-SSP-100	200 (91)	250 (113)	1.72 (44)	1.92 (49)	30 (13)	25 (16)	60 (27)	70 (31)	700 (317)
	NM-SSP-158	430 (195)	540 (245)	1.07 (27)	1.20 (30)	100 (45)	115 (52)	200 (90)	230 (104)	1,010 (458)
	NM-SSP-158-D	1,270 (576)	1,590 (721)	0.62 (16)	0.69 (17)	520 (236)	590 (267)	1,040 (471)	1,170 (780)	2,020 (916)
60 (1524)	NM-SSP-100	160 (72)	200 (91)	2.68 (68)	2.99 (76)	20 (9)	23 (10)	40 (18)	45 (20)	180 (81)
	NM-SSP-158	350 (158)	400 (200)	1.70 (43)	1.91 (48)	60 (27)	70 (32)	120 (54)	135 (61)	260 (118)
	NM-SSP-158-D	1,020 (462)	1,280 (580)	0.97 (25)	1.09 (28)	270 (122)	310 (140)	540 (245)	610 (276)	520 (235)
72 (1828.8)	NM-SSP-100	140 (63)	180 (81)	-	-	10 (4)	12 (5)	20 (9)	23 (10)	-
	NM-SSP-158	290 (131)	370 (168)	2.44 (62)	2.78 (71)	30 (13)	34 (15)	60 (27)	70 (32)	-
	NM-SSP-158-D	850 (385)	1,070 (485)	1.40 (35)	1.57 (40)	160 (72)	180 (81)	320 (145)	360 (163)	-
84 (2133.6)	NM-SSP-100	120 (54)	150 (68)	-	-	NR	-	12 (5)	15 (7)	-
	NM-SSP-158	250 (113)	320 (145)	-	-	20 (9)	23 (10)	40 (18)	45 (20)	-
	NM-SSP-158-D	730 (331)	920 (417)	1.91 (48)	2.15 (55)	100 (45)	115 (52)	200 (90)	230 (104)	-
96 (2438.4)	NM-SSP-100	100 (45)	130 (59)	-	-	NR	-	-	-	-
	NM-SSP-158	220 (100)	250 (113)	-	-	13 (6)	15 (7)	26 (12)	30 (13)	-
	NM-SSP-158-D	640 (290)	800 (363)	2.50 (63)	2.79 (71)	70 (32)	80 (36)	140 (63)	160 (72)	-

<b>Temperature</b>	<b>Design load multiplier</b>
75°F (24°C)	100%
100°F (38°C)	90%
125°F (52°C)	78%
150°F (66°C)	68%
175°F (79°C)	60%
200°F (93°C)	52%

**Recommended guideline**

Published design loads are based on usage at 70°F (21°C) and must be reduced for continuous exposure to higher temperatures. Refer to the chart opposite for high temperature applications.