TECHNICAL BULLETIN
NO. D-12
REVISION DATE: 3/2025

EXTREME PANEL TECHNOLOGIES

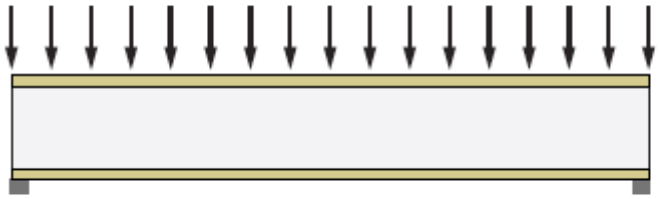
SUBJECT: EXTREME SIPS WITH TYPE L (LUMBER) SPLINES

Extreme Panels utilize Type L Splines when the structural design loads exceed the capacities of our standard Type S or Type I Splines. Extreme Panel Details #EPT-204 and #EPT-205, contained in the Extreme Construction Detail Manual, illustrate the Type L Spline connections. The double 2x's shown in the Extreme SIP Type L Spline details must be both continuous pieces and extend for the full length of the SIP span.

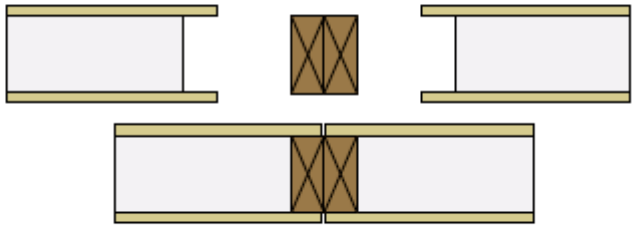
Extreme Panels commissioned an independent, code-recognized testing agency to conduct full-scale destructive transverse load testing to determine the design capacity loads of our Extreme SIPs with Type L Splines for various span conditions.

The Extreme Panels Type L Load Chart summarizes the panel capacities obtained from full-scale destructive testing of Extreme SIPs with Type L Splines. When Type L Splines are utilized, the maximum spacing of the lumber spline is 4' on center. The minimum bearing required to support the panel end is 1-½". Loads shown on the Type L Spline, Extreme Panel's #6 Load Chart (Page 2) for spans that exceed the limitations imposed on floors and roofs, are used for wall design.

TRANSVERSE LOAD



TYPE L SPLINE



LOAD CHART #6C
Roof/Floor Uniform Transverse Loads - PSF [1-4]
Type L Spline

SIP Thickness	Deflection Limit	SIP Span (feet)									
		4[4]	8	10	12	14	16	18	20	22	24
4-1/2"	L/360	103	45	33	24	NA	NA	NA	NA	NA	NA
	L/240	225	68	47	34	NA	NA	NA	NA	NA	NA
	L/180	297	91	61	45	NA	NA	NA	NA	NA	NA
6-1/2"	L/360	307	129	57	42	34	25	20	NA	NA	NA
	L/240	307	182	87	61	49	37	30	NA	NA	NA
	L/180	307	182	112	80	65	49	39	NA	NA	NA
8-1/4"	L/360	253	171	82	66	54	41	32	23	NA	NA
	L/240	288	188	128	100	81	61	48	35	NA	NA
	L/180	288	188	133	117	105	80	63	45	NA	NA
10-1/4"	L/360	286	188	117	101	80	58	47	36	32	27
	L/240	326	188	147	134	120	90	71	52	47	41
	L/180	326	188	147	134	121	106	93	68	61	53
12-1/4"	L/360	327	188	167	141	116	91	75	58	47	36
	L/240	327	188	167	153	132	110	97	83	69	53
	L/180	327	188	167	153	132	110	97	83	83	70

[1] Table values assume a simply supported SIP with 1-1/2 inches (38.1 mm) of continuous bearing. Permanent loads, such as dead load, shall not exceed 0.50 times the tabulated load. Splines consist of No. 2 or better Hem-Fir, 1-1/2 inches (38.1 mm) wide with a depth equal to the core thickness, spaced to provide not less than two members for every 48 inches (1219.2 mm) of SIP width.

[2] Deflection limit shall be selected by building designer based on the serviceability requirements of the structure and the requirements of applicable building code.

[3] Table values for 8-foot (2.44 m) spans apply to SIPs constructed with the OSB strength axis oriented either parallel or perpendicular to span direction. Table values for other spans are based on the OSB strength axis parallel to the span direction.

[4] SIP shall be a minimum of 8 foot (2.44 m) long spanning two 4-foot (1.22 m) spans. No single span condition is allowed.

Extreme Detail Load Charts can be accessed at: www.extremepanel.com.