TECH BULLETIN



Subject: Roof Cantilevers

Date: November 2007 (Revised May 2018)

R-Control SIPs used as roofs are often extended beyond the building wall line to create overhangs. Overhangs result in the R-Control SIP being placed in a cantilever condition.

Engineering analysis and full scale loading tests have been used to determine the design recommendations for R-Control Roof SIPs placed in these cantilever roof conditions.

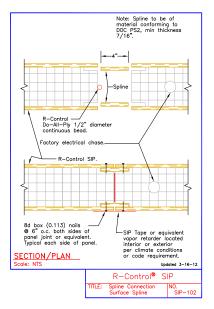
Roof Cantilevers - Transverse Loads - PSF LOAD DESIGN CHART #9¹ SPLINE DETAILS SIP-102, SIP-102g, or SIP-102m

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SIP	DEFLECTION ²	SIP CANTILEVER (feet)				
THICKNESS	LIMIT	1	2	3	4	
4-1/2"	L/240	43	43	43		
6-1/2"	L/240	66	65	60	42	
8-1/4"	L/240	68	68	65	42	
10-1/4"	L/240	69	69	60	49	
12-1/4"	L/240	69	63	52	46	

- 1 VALUES ARE APPLICABLE TO SIPS INSTALLED WITH THE STRONG AXIS OF THE OSB FACINGS PARALLEL TO SIP SPAN AND WITH AN 8' RACKSPAN
- ² LIVE LOAD AT L/240 AND TOTAL LOAD AT L/180.

GENERAL NOTES:

- CHART VALUES ARE POUNDS PER SQUARE FOOT.
- SURFACE, BLOCK, OR LUMBER BLOCK SPLINE CONNECTED TO SIP FACING WITH 8D BOX (0.113)
 NAILS 6" O.C.
- CONTINUOUS SUPPORT WITH A MINIMUM BEARING OF 1-1/2" AT EACH SUPPORT REQUIRED.
- CHART IS BASED UPON UNIFORM LOADS.
- LOADS LIMITED BY DEFLECTION OR ULTIMATE FAILURE LOAD DIVIDED BY A FACTOR OF SAFETY OF THREE.
- FOR SLOPED SIPS, THE LOADING CONDITIONS AND SIP CAPACITIES SHOULD BE REVIEWED BASED UPON THE INCLINED SIP LENGTH. REFER TO R-CONTROL SIP TECHNICAL BULLETIN SIP NO. 2042.
- VALUES ARE FOR TOTAL LOAD (DEAD LOAD + LIVE LOAD).
- THE DEAD LOAD SHALL NOT EXCEED 20% OF THE TOTAL LOAD.





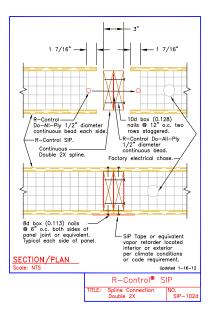
Roof Cantilevers - Transverse Loads - PSF LOAD DESIGN CHART #9A1 **SPLINE DETAILS SIP-102d**

SIP	DEFLECTION ²	SIP CANTILEVER (inches)				
THICKNESS	LIMIT	12"	24"	36"	48"	
4-1/2"	L/240	56²	60 ²	55 ²	472	
6-1/2"	L/240	80 ²	80 ²	80 ²	73 ²	
8-1/4"	L/240	80 ²	80 ²	80 ²	80 ²	
10-1/4"	L/240	80 ²	80 ²	80 ²	80 ²	
12-1/4"	L/240	80 ²	80²	80 ²	80²	

- VALUES ARE APPLICABLE TO SIPS INSTALLED WITH THE STRONG AXIS OF THE OSB FACINGS PARALLEL TO SIP SPAN AND WITH AN 8' BACKSPAN.
- ² LIVE LOAD AT L/240 AND TOTAL LOAD AT L/180.

GENERAL NOTES:

- CHART VALUES ARE POUNDS PER SQUARE FOOT.
- 2X LUMBER SPLINE 4FT. O.C. CONNECTED TO SIP FACING WITH 8D BOX (0.113) NAILS 6" O.C. CONTINUOUS SUPPORT WITH A MINIMUM BEARING OF 1-1/2" AT EACH SUPPORT REQUIRED.
- CHART IS BASED UPON UNIFORM LOADS.
- LOADS LIMITED BY DEFLECTION OR ULTIMATE FAILURE LOAD DIVIDED BY A FACTOR OF SAFETY OF THREE.
- FOR SLOPED SIPS, THE LOADING CONDITIONS AND SIP CAPACITIES SHOULD BE REVIEWED BASED UPON THE INCLINED SIP LENGTH. REFER TO R-CONTROL SIP TECHNICAL BULLETIN SIP NO. 2042.
- VALUES ARE FOR TOTAL LOAD (DEAD LOAD + LIVE LOAD). THE DEAD LOAD SHALL NOT EXCEED 20% OF THE TOTAL LOAD.





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