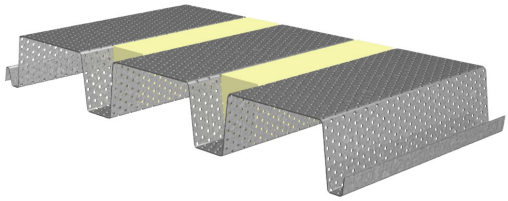
PLN™-24/N-24 FULLY PERFED ROOF DECKS
GRADE 50 STEEL

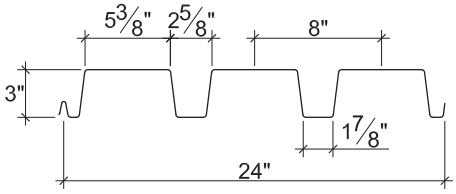
ASD

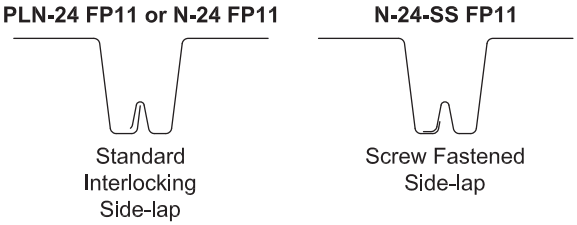
11% OPEN FULLY PERFORATED ROOF DECKS

- **PLN-24 FP11 Deck used with PunchLok® II System**
- **N-24 FP11 Deck used with TSWs or BPs**
- **N-24-SS FP11 Deck used with Side-lap Screws**



Nominal Dimensions





Section Properties

Deck Gage	Deck Weight w_{dd} (psf)	Base Metal Thickness t (in.)	Yield Strength F_y (ksi)	Effective Moment of Inertia at Service Load $I_d = (2I_e+I_g)/3$ I_d+ (in⁴/ft)	I_d- (in⁴/ft)	Effective Section Modulus at F_y = 50 ksi S_e+ (in³/ft)	S_e- (in³/ft)	Vertical Web Shear V_n/Ω (lb/ft)
22	2.0	0.0299	50	0.596	0.651	0.192	0.240	1961
20	2.3	0.0359	50	0.734	0.780	0.247	0.296	2988
18	3.1	0.0478	50	1.010	1.034	0.364	0.410	5249
16	3.7	0.0598	50	1.283	1.289	0.467	0.510	6544

Allowable Reactions at Supports Based on Web Crippling, R_n/Ω (lb/ft)

Deck Gage	Bearing Length of Webs: One-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"	Two-Flange Loading, End Bearing 1½"	2"	3"	4"	Interior Bearing 4"	8"
22	566	622	716	795	1291	1508	520	560	627	683	1473	1736
20	804	880	1009	1118	1812	2246	794	853	951	1033	2108	2650
18	1384	1508	1718	1894	3069	3840	1509	1612	1784	1929	3664	4658
16	2110	2291	2596	2852	4627	5732	2458	2614	2877	3099	5613	7069

Standard Features

- ASTM A653 SS GR50 Min., with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR50 Min. with gray primer
- Standard lengths – 6'-0" to 40'-0"
- IAPMO UES ER-2018 Listed
- Tables conform to ANSI/SDI RD-2017

Optional Features

- Inquire regarding cost and lead times for:
  - -Short cuts < 6'-0"
  - -Sheet Lengths > 40'-0"
  - -Alternative metallic and painted finishes
- Web Perforated Acoustical Versions

Inward Uniform Allowable Loads, ASD (psf)

FP11

Deck Gage	Spans	Criteria	Span (ft-in.) 4'-0"	6'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	14'-0"	16'-0"	18'-0"	20'-0"
22	Single	W_n / Ω	240	106	60	47	38	32	27	20	15	12	10
		L/240	---	---	---	---	---	29	23	14	10	7	5
	Double	W_n / Ω	280	129	74	58	47	39	33	24	19	15	12
		L/240	---	---	---	---	---	---	---	---	---	---	---
	Triple	W_n / Ω	340	159	91	72	59	49	41	30			
		L/240	---	---	---	---	---	---	---	29			
20	Single	W_n / Ω	308	137	77	61	49	41	34	25	19	15	12
		L/240	---	---	---	---	48	36	28	18	12	8	6
	Double	W_n / Ω	353	161	91	72	59	49	41	30	23	18	15
		L/240	---	---	---	---	---	---	---	---	---	---	---
	Triple	W_n / Ω	433	199	113	90	73	60	51	37			
		L/240	---	---	---	---	---	---	---	35			
18	Single	W_n / Ω	454	202	114	90	73	60	50	37	28	22	18
		L/240	---	---	---	---	66	50	38	24	16	11	8
	Double	W_n / Ω	497	224	127	100	81	67	57	42	32	25	20
		L/240	---	---	---	---	---	---	---	---	---	---	20
	Triple	W_n / Ω	614	279	158	125	102	84	71	52			
		L/240	---	---	---	---	---	---	---	47			
16	Single	W_n / Ω	583	259	146	115	93	77	65	48	36	29	23
		L/240	---	---	---	---	84	63	49	31	21	14	11
	Double	W_n / Ω	618	279	158	125	101	84	70	52	40	31	25
		L/240	---	---	---	---	---	---	---	---	---	---	---
	Triple	W_n / Ω	763	347	197	156	126	105	88	65			
		L/240	---	---	---	---	---	---	---	58			

Notes:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.
2. The symbol "---" indicates that the uniform allowable load based on deflection exceeds the allowable load based on stress.