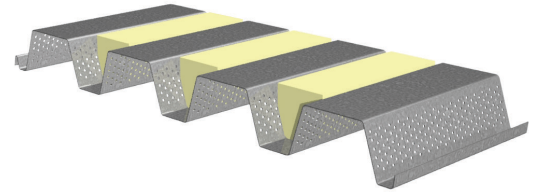


# PLN3™-32/HSN3™-32 ACOUSTICAL ROOF DECKS GRADE 50 STEEL

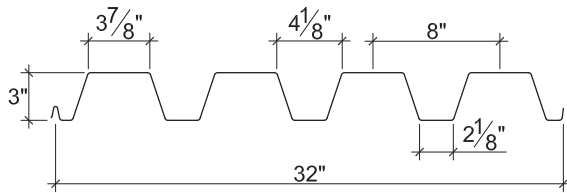
ASD

## N3 ACOUSTICAL ROOF DECKS

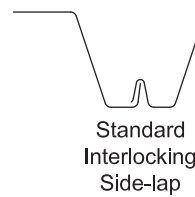
- PLN3-32 AC Deck used with PunchLok® II System
- HSN3-32 AC Deck used with TSWs or BPs
- HSN3-32-NS AC Deck used with Side-lap Screws
- HSN3-32-SS AC Deck used with Side-lap Screws



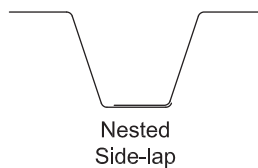
## Nominal Dimensions



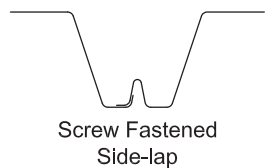
PLN3-32 AC or HSN3-32 AC



HSN3-32-NS AC



HSN3-32-SS AC



## 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 $I_d = (2I_e + I_g)/3$		Effective Section Modulus at $F_y = 50$ ksi		Vertical Web Shear $V_n/\Omega$ (lb/ft)
				$I_{d+}$ (in <sup>4</sup> /ft)	$I_{d-}$ (in <sup>4</sup> /ft)	$S_{e+}$ (in <sup>3</sup> /ft)	$S_{e-}$ (in <sup>3</sup> /ft)	
22	2.0	0.0299	50	0.674	0.737	0.321	0.374	1901
20	2.4	0.0359	50	0.833	0.894	0.414	0.471	3120
18	3.1	0.0478	50	1.154	1.195	0.620	0.672	5526
16	3.9	0.0598	50	1.475	1.491	0.821	0.870	7373

## Allowable Reactions at Supports Based on Web Crippling, $R_n/\Omega$ (lb/ft)

Deck Gage	Bearing Length of Webs											
	One-Flange Loading						Two-Flange Loading					
	End Bearing				Interior Bearing		End Bearing				Interior Bearing	
	1 1/2"	2"	3"	4"	4"	8"	1 1/2"	2"	3"	4"	4"	8"
22	542	596	685	761	1234	1440	499	537	602	656	1409	1662
20	769	842	966	1069	1730	2144	762	818	912	991	2016	2534
18	1323	1442	1642	1811	2930	3669	1445	1543	1708	1847	3502	4455
16	2015	2188	2479	2724	4414	5477	2349	2499	2751	2962	5359	6762

## 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 and FM 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
- Fully Perforated Acoustical Versions

# PLN3™-32/HSN3™-32 ACOUSTICAL ROOF DECKS GRADE 50 STEEL

ASD

## Inward Uniform Allowable Loads, ASD (psf)

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	$W_n / \Omega$	401	178	100	79	64	53	45	33	25	20	16
		L/240	---	---	86	61	44	33	26	16	11	8	6
	Double	$W_n / \Omega$	398	192	111	89	72	60	51	38	29	23	19
		L/240	---	---	---	---	---	---	---	---	28	20	15
	Triple	$W_n / \Omega$	470	233	137	109	89	74	63	47			
		L/240	---	---	---	---	83	63	48	30			
20	Single	$W_n / \Omega$	516	230	129	102	83	68	57	42	32	26	21
		L/240	---	---	107	75	55	41	32	20	13	9	7
	Double	$W_n / \Omega$	532	249	143	114	92	77	65	48	36	29	23
		L/240	---	---	---	---	---	---	---	---	34	24	18
	Triple	$W_n / \Omega$	640	306	177	141	115	95	80	59			
		L/240	---	---	---	---	103	77	60	38			
18	Single	$W_n / \Omega$	773	344	193	153	124	102	86	63	48	38	31
		L/240	---	---	148	104	76	57	44	28	18	13	9
	Double	$W_n / \Omega$	784	361	206	163	133	110	92	68	52	41	33
		L/240	---	---	---	---	---	---	---	---	46	32	24
	Triple	$W_n / \Omega$	954	446	255	203	165	137	115	85			
		L/240	---	---	---	196	143	107	83	52			
16	Single	$W_n / \Omega$	1024	455	256	202	164	135	114	84	64	51	41
		L/240	---	448	189	133	97	73	56	35	24	17	12
	Double	$W_n / \Omega$	1019	468	267	212	172	142	120	88	68	53	43
		L/240	---	---	---	---	---	---	---	86	57	40	29
	Triple	$W_n / \Omega$	1241	578	331	263	214	177	149	110			
		L/240	---	---	---	250	183	137	106	67			

### 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.

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