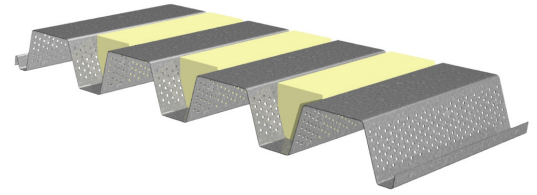


PLN3™-32/HSN3™-32 ACOUSTICAL ROOF DECKS GRADE 50 STEEL

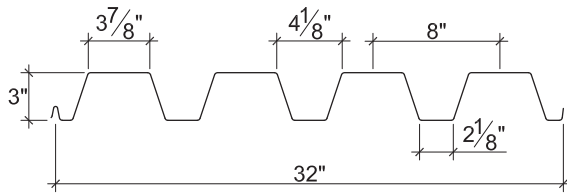
LRFD

N3 ACOUSTICAL ROOF DECKS

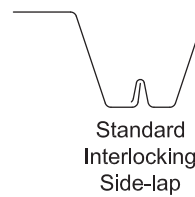
- PLN3-32 AC Deck used with PunchLok® II System
- HSN3-32 AC Deck used with TSWs or BPs
- HSN3-32-NS AC Deck used with Side-lap Screws
- HSN3-32-SS AC Deck used with Side-lap Screws



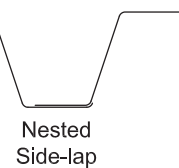
Nominal Dimensions



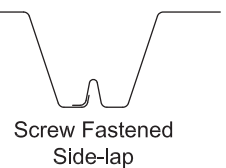
PLN3-32 AC or HSN3-32 AC



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 ϕV_n (lb/ft)
				I_{d+} (in ⁴ /ft)	I_{d-} (in ⁴ /ft)	S_{e+} (in ³ /ft)	S_{e-} (in ³ /ft)	
22	2.0	0.0299	50	0.674	0.737	0.321	0.374	2890
20	2.4	0.0359	50	0.833	0.894	0.414	0.471	4742
18	3.1	0.0478	50	1.154	1.195	0.620	0.672	8399
16	3.9	0.0598	50	1.475	1.491	0.821	0.870	11206

Design Reactions at Supports Based on Web Crippling, ϕR_n (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	829	911	1049	1165	1835	2143	763	822	921	1004	2096	2472
20	1176	1289	1477	1636	2574	3190	1165	1251	1395	1516	2999	3769
18	2024	2207	2513	2771	4358	5457	2211	2361	2614	2826	5209	6628
16	3083	3348	3793	4168	6566	8148	3595	3824	4208	4533	7971	10058

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

LRFD

Inward Uniform Design Loads, LRFD (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	ϕW_n	602	268	151	119	96	80	67	49	38	30	24
		L/240	690	205	86	61	44	33	26	16	11	8	6
	Double	ϕW_n	599	289	168	134	109	91	76	56	43	34	28
		L/240	1818	539	227	160	116	87	67	42	28	20	15
	Triple	ϕW_n	709	350	206	165	135	112	95	70			
		L/240	1425	422	178	125	91	69	53	33			
20	Single	ϕW_n	776	345	194	153	124	103	86	63	49	38	31
		L/240	853	253	107	75	55	41	32	20	13	9	7
	Double	ϕW_n	801	375	215	171	139	115	97	71	55	43	35
		L/240	2206	654	276	194	141	106	82	51	34	24	18
	Triple	ϕW_n	964	460	266	212	172	143	121	89			
		L/240	1729	512	216	152	111	83	64	40			
18	Single	ϕW_n	1162	517	291	230	186	154	129	95	73	57	46
		L/240	1182	350	148	104	76	57	44	28	18	13	9
	Double	ϕW_n	1180	543	310	246	199	165	139	102	78	62	50
		L/240	2949	874	369	259	189	142	109	69	46	32	24
	Triple	ϕW_n	1436	670	384	305	248	206	173	128			
		L/240	2311	685	289	203	148	111	86	54			
16	Single	ϕW_n	1539	684	385	304	246	204	171	126	96	76	62
		L/240	1511	448	189	133	97	73	56	35	24	17	12
	Double	ϕW_n	1533	705	401	318	258	214	180	132	102	80	65
		L/240	3679	1090	460	323	235	177	136	86	57	40	29
	Triple	ϕW_n	1869	870	498	395	321	266	224	165			
		L/240	2883	854	360	253	185	139	107	67			

Note:

1. Table does not account for web crippling. Required bearing should be determined based on specific span conditions.

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