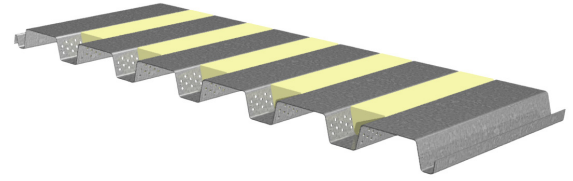


# 1.5BA-36/1.5BIA-36/1.5PLBA-36 ACOUSTICAL ROOF DECKS GRADE 50 STEEL

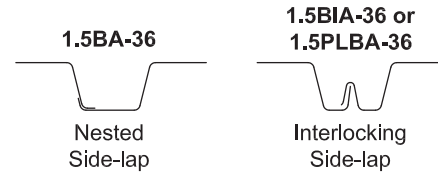
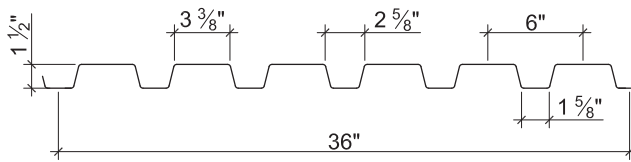
LRFD

## 1.5B ACOUSTICAL ROOF DECKS

- 1.5BA-36 Deck used with Side-lap Screws
- 1.5BIA-36 Deck used with TSWs or BPs
- 1.5PLBA-36 Deck used with PunchLok® II System



## 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 $I_d = (2I_e + I_g)/3$		Effective Section Modulus at $F_y = 50$ ksi		Design Moment		Vertical Web Shear $\phi V_n$ (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)	$\phi M_{n+}$ (lb-ft/ft)	$\phi M_{n-}$ (lb-ft/ft)	
22	1.5	0.0295	50	0.148	0.169	0.161	0.170	604	637	3051
20	1.9	0.0358	50	0.187	0.206	0.213	0.218	799	817	3679
19	2.2	0.0418	50	0.227	0.244	0.253	0.264	949	990	4269
18	2.5	0.0474	50	0.263	0.276	0.290	0.302	1087	1132	4812
16	3.2	0.0598	50	0.346	0.348	0.374	0.382	1402	1433	5991

## Design Reactions at Supports Based on Web Crippling, $\phi R_n$ (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"	3"	4"	1 1/2"	2"	3"	4"	3"	4"
22	1199	1318	1517	1656	2195	2373	1220	1315	1473	1583	2666	2899
20	1717	1881	2157	2344	3153	3393	1858	1995	2224	2380	3880	4199
19	2288	2500	2856	3093	4208	4511	2587	2770	3076	3280	5225	5633
18	2888	3149	3587	3870	5317	5681	3376	3606	3992	4242	6644	7138
16	4436	4817	5457	5848	8183	8684	5486	5835	6422	6781	10325	11018

## 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 42'-0"
- IAPMO UES ER-0652 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 > 42'-0"
  - Alternative metallic and painted finishes

# 1.5BA-36/1.5BIA-36/1.5PLBA-36 ACOUSTICAL ROOF DECKS GRADE 50 STEEL

LRFD

## Inward Uniform Design Loads, LRFD (psf)

Deck Gage	Spans	Criteria	Span (ft-in.)										
			2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"
22	Single	$\phi W_n$	1208	537	302	193	134	99	75	60	48	40	34
		L/240	1213	359	152	78	45	28	19	13	10	7	6
	Double	$\phi W_n$	1130	535	308	200	140	103	79	63	51	42	35
		L/240	3336	988	417	213	124	78	52	37	27	20	15
	Triple	$\phi W_n$	1350	653	380	247	173	128	98	78	63	52	44
		L/240	2615	775	327	167	97	61	41	29	21	16	12
20	Single	$\phi W_n$	1598	710	400	256	178	130	100	79	64	53	44
		L/240	1532	454	192	98	57	36	24	17	12	9	7
	Double	$\phi W_n$	1429	681	394	255	179	132	101	80	65	54	45
		L/240	4066	1205	508	260	151	95	64	45	33	24	19
	Triple	$\phi W_n$	1700	830	485	316	222	164	126	100	81	67	56
		L/240	3187	944	398	204	118	74	50	35	25	19	15
19	Single	$\phi W_n$	1897	843	474	304	211	155	119	94	76	63	53
		L/240	1860	551	233	119	69	43	29	20	15	11	9
	Double	$\phi W_n$	1713	821	475	309	216	159	122	97	79	65	55
		L/240	4816	1427	602	308	178	112	75	53	39	29	22
	Triple	$\phi W_n$	2032	998	584	382	268	198	152	121	98	81	68
		L/240	3775	1119	472	242	140	88	59	41	30	23	17
18	Single	$\phi W_n$	2174	966	544	348	242	178	136	107	87	72	60
		L/240	2155	639	269	138	80	50	34	24	17	13	10
	Double	$\phi W_n$	1952	937	543	353	247	182	140	111	90	74	63
		L/240	5448	1614	681	349	202	127	85	60	44	33	25
	Triple	$\phi W_n$	2312	1138	667	436	306	227	174	138	112	93	78
		L/240	4270	1265	534	273	158	100	67	47	34	26	20
16	Single	$\phi W_n$	2804	1246	701	449	312	229	175	138	112	93	78
		L/240	2835	840	354	181	105	66	44	31	23	17	13
	Double	$\phi W_n$	2459	1183	686	446	312	231	177	140	114	94	79
		L/240	6869	2035	859	440	254	160	107	75	55	41	32
	Triple	$\phi W_n$	2910	1436	843	551	387	286	220	175	142	117	99
		L/240	5384	1595	673	345	199	126	84	59	43	32	25

### Note:

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

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