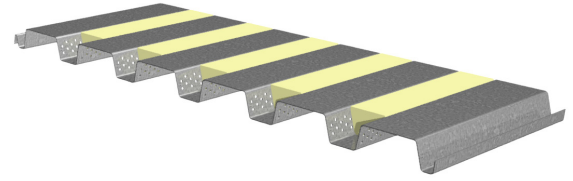


# 1.5BA-36/1.5BIA-36/1.5PLBA-36 ACOUSTICAL ROOF DECKS GRADE 80 STEEL

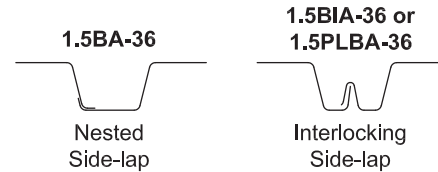
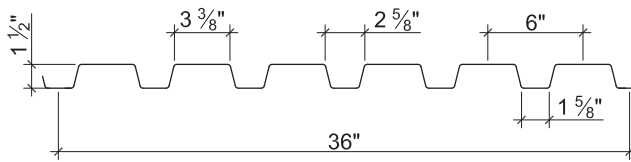
ASD

## 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 $F_y = 60$ ksi		Allowable Moment		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)	$M_{n+}/\Omega$ (lb-ft/ft)	$M_{n-}/\Omega$ (lb-ft/ft)	
22	1.5	0.0295	60	0.144	0.166	0.154	0.164	461	491	2409
20	1.9	0.0358	60	0.183	0.206	0.204	0.212	611	635	2904
19	2.2	0.0418	60	0.221	0.241	0.250	0.257	749	769	3370
18	2.5	0.0474	60	0.259	0.276	0.287	0.299	859	895	3799

## 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"	3"	4"	1 1/2"	2"	3"	4"	3"	4"
22	940	1033	1190	1299	1771	1915	957	1031	1155	1242	2151	2338
20	1347	1475	1691	1839	2543	2737	1457	1564	1744	1867	3130	3388
19	1794	1961	2240	2426	3395	3639	2029	2173	2413	2573	4215	4544
18	2265	2470	2813	3036	4289	4583	2648	2828	3131	3327	5360	5758

## Standard Features

- ASTM A653 SS GR80, with G60 or G90, white or gray primer optional
- ASTM A1008 SS GR80 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 80 STEEL

ASD

## Inward Uniform Allowable Loads, ASD (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	$W_n / \Omega$	922	410	231	148	102	75	58	46	37	30	26
		L/240	-	350	148	76	44	28	18	13	9	7	5
	Double	$W_n / \Omega$	875	413	238	154	108	79	61	48	39	32	27
		L/240	---	---	---	---	---	76	51	36	26	20	15
	Triple	$W_n / \Omega$	1047	505	293	191	134	99	76	60	49	40	34
		L/240	---	---	---	164	95	60	40	28	21	15	12
20	Single	$W_n / \Omega$	1222	543	305	195	136	100	76	60	49	40	34
		L/240	---	444	187	96	56	35	23	16	12	9	7
	Double	$W_n / \Omega$	1114	530	306	198	139	102	79	62	50	42	35
		L/240	---	---	---	---	---	95	64	45	33	24	19
	Triple	$W_n / \Omega$	1327	646	377	246	172	127	98	78	63	52	44
		L/240	---	---	---	204	118	74	50	35	25	19	15
19	Single	$W_n / \Omega$	1497	665	374	240	166	122	94	74	60	49	42
		L/240	---	537	226	116	67	42	28	20	14	11	8
	Double	$W_n / \Omega$	1337	639	370	240	168	124	95	75	61	51	43
		L/240	---	---	---	---	---	111	74	52	38	29	22
	Triple	$W_n / \Omega$	1587	778	455	297	208	154	119	94	76	63	53
		L/240	---	---	---	239	138	87	58	41	30	22	17
18	Single	$W_n / \Omega$	1719	764	430	275	191	140	107	85	69	57	48
		L/240	---	629	265	136	79	50	33	23	17	13	10
	Double	$W_n / \Omega$	1543	741	429	279	195	144	111	88	71	59	49
		L/240	---	---	---	---	---	127	85	60	44	33	25
	Triple	$W_n / \Omega$	1827	900	528	345	242	179	138	109	89	73	62
		L/240	---	---	---	273	158	100	67	47	34	26	20

### 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.

NOTICE: Design defects that could cause injury or death may result from relying on the information in this document without independent verification by a qualified professional. The information in this document is provided "AS IS". Nucor Corporation and its affiliates expressly disclaim: (i) any and all representations, warranties and conditions and (ii) all liability arising out of or related to this document and the information in it.