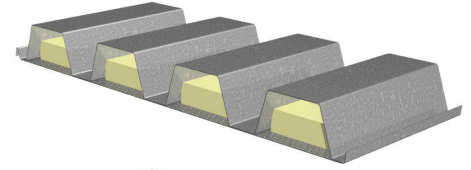


# PLN3CD/HSN3CD/N3CD CELLULAR ACOUSTICAL DECK GRADE 50 STEEL

LRFD

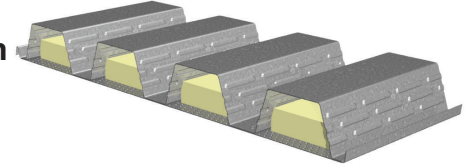
## N3 CELLULAR ACOUSTICAL ROOF DECK

- PLN3CD-32 AC Deck used with PunchLok® II System
- HSN3CD-32 AC Deck used with TSWs or BPs

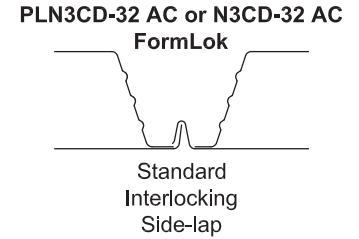
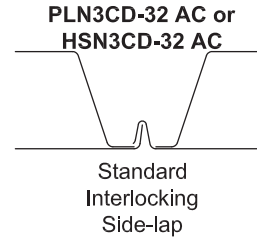
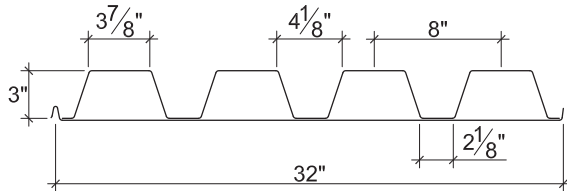


## N3 CELLULAR ACOUSTICAL FORMLOK® COMPOSITE DECK

- PLN3CD-32 AC FormLok Deck used with PunchLok® II System
- N3CD-32 AC FormLok Deck used with TSWs or BPs



## 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		Vertical Web Shear $\phi V_n$ (lb/ft)	Vertical Shear $\phi V_n$	
				$I_{d+}$ (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)		End	Interior
20/20	3.9	0.0359/0.0359	50	1.530	1.335	0.507	0.709	5821	834	1811
20/18	4.4	0.0359/0.0478	50	1.664	1.532	0.505	0.801	5821	767	1141
18/20	4.6	0.0478/0.0359	50	1.955	1.662	0.796	0.869	10371	921	2196
18/18	5.1	0.0478/0.0478	50	2.127	1.873	0.817	1.030	10371	1268	2178
18/16	5.7	0.0478/0.0598	50	2.273	2.124	0.832	1.077	10371	1187	1689
16/18	5.9	0.0598/0.0478	50	2.569	2.208	1.096	1.210	13843	1367	2573
16/16	6.4	0.0598/0.0598	50	2.749	2.475	1.119	1.314	13843	1760	2649

## 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"	4"	8"	1 1/2"	2"	3"	4"	4"	8"
20/XX	1215	1331	1525	1690	2584	3203	1241	1332	1485	1614	3072	3861
18/XX	2079	2266	2581	2846	4374	5476	2325	2484	2749	2973	5315	6763
16/XX	3155	3427	3882	4266	6586	8173	3752	3992	4393	4731	8115	10239

## Standard Features

- ASTM A653 SS GR50 Min., with G60
- Standard lengths – 7'-6" to 30'-0"
- IAPMO UES ER-2018, UL, and FM Listed
- Tables conform to ANSI/SDI RD-2017 and C-2017

## Optional Features

- Inquire regarding cost and lead times for:
  - Sheet Lengths > 30'-0"
  - Alternative metallic finishes
- Cellular Acoustical Versions

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