

**PRODUCT**  
Composite Deck

**MEMBER**  
15CD474

**GAGE**  
18

**DESIGN METHOD**  
ASD

## PHYSICAL PROPERTIES

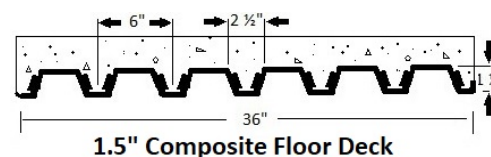
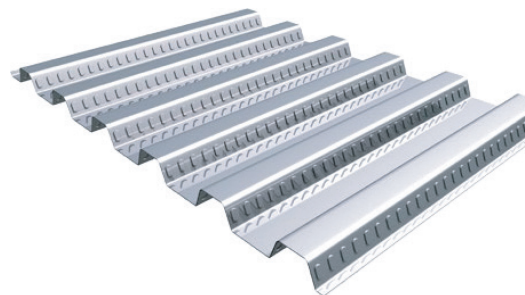
Deck Type	Composite Deck
Design Thickness	0.0474
Weight	2.64
Area	0.752
KSI	50
Coating	G60

## SECTION PROPERTIES

$I_p$ (In <sup>4</sup> )	0.548
$I_n$ (In <sup>4</sup> )	0.545
$S_p$ (In <sup>3</sup> )	0.478
$S_n$ (In <sup>3</sup> )	0.484

## BARE DECK DESIGN

Bending Moment Positive ( $M_p/\Omega$ )	8326
Bending Moment Negative ( $M_n/\Omega$ )	8557
Shear Strength ( $V_n/\Omega$ )	3200
Web Crippling OFE ( $R_{be}/\Omega$ )	1915
Web Crippling OFI ( $R_{bi}/\Omega$ )	3776



[ASD] MAXIMUM CONSTRUCTION CLEAR SPAN (ft.-in.) FOR NORMAL WEIGHT CONCRETE 145 PCF

Slab Depth (in.)	20 PSF CONSTRUCTION LOAD	1-SPAN			50 PSF CONSTRUCTION LOAD	1-SPAN			75 PSF CONSTRUCTION LOAD	1-SPAN		
		1-SPAN	2-SPAN	3-SPAN		1-SPAN	2-SPAN	3-SPAN		1-SPAN	2-SPAN	3-SPAN
3.5 (34 PSF)		8' 11"	10' 0"	10' 4"		8' 0"	8' 1"	8' 5"		7' 1"	7' 2"	7' 5"
4 (40 PSF)		8' 5"	9' 6"	9' 10"		7' 9"	7' 10"	8' 1"		6' 10"	7' 0"	7' 2"
4.5 (46 PSF)		8' 0"	9' 1"	9' 5"		7' 6"	7' 7"	7' 10"		6' 8"	6' 9"	7' 0"
5 (52 PSF)		7' 8"	8' 9"	9' 0"		7' 3"	7' 5"	7' 8"		6' 6"	6' 8"	6' 10"
5.5 (58 PSF)		7' 5"	8' 5"	8' 8"		7' 1"	7' 2"	7' 5"		6' 5"	6' 6"	6' 8"
6 (64 PSF)		7' 2"	8' 1"	8' 5"		6' 11"	7' 0"	7' 3"		6' 3"	6' 4"	6' 7"

## NOTES

- All section properties and strengths are reported per foot of panel width.
- p = Property in positive bending; n = Property in negative bending.
- Steel deck section properties were calculated in accordance with AISI S100-12.
- Web crippling values are based on minimum bearing lengths of 1 1/2" for end bearing and 3" for interior bearing.

## DISCLAIMER:

Oates Metal Deck & Building Products, Inc. ("OMD") is a distributor for Steel Deck Institute ("SDI") approved manufacturers. All data, detail and specifications included in herein are intended as a general guide for using SDI approved manufacturer steel deck products. These products should not be used in design or construction without evaluation by a qualified engineer or architect to determine their suitability for a specific use. OMD assumes no liability for failure resulting from use or misapplication of computation, details or specifications contained herein. OMD assumes no liability for damages resulting from improper application or installation of these products. Contact OMD for specific manufacturer information.

[ASD] CANTILEVERED SPANS FOR NORMAL WEIGHT CONCRETE 145 PCF

Slab Depth (in.)	3.5 (34 PSF)	4 (40 PSF)	4.5 (46 PSF)	5 (52 PSF)	5.5 (58 PSF)	6 (64 PSF)
Span (ft-in)	3' 0"	2' 11"	2' 10"	2' 9"	2' 8"	2' 8"

[ASD] COMPOSITE DECK SLAB YIELD MOMENT FOR NORMAL WEIGHT CONCRETE 145 PCF

Slab Depth (in.)	3.5 (34 PSF)	4 (40 PSF)	4.5 (46 PSF)	5 (52 PSF)	5.5 (58 PSF)	6 (64 PSF)
Yield Moment (in-kip)	26.43	42.61	51.73	61.14	70.77	80.56

[ASD] ALLOWABLE UNIFORM LIVE LOADS FOR NORMAL WEIGHT CONCRETE 145 PCF

Slab Depth (in.)	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5
3.5 (34 PSF)	400	400	400	381	324	277	239	208	181	159	140	124	110	97	86	77
4 (40 PSF)	400	400	400	400	400	400	400	351	309	273	242	216	193	173	155	140
4.5 (46 PSF)	400	400	400	400	400	400	400	400	378	334	297	265	237	213	191	173
5 (52 PSF)	400	400	400	400	400	400	400	400	400	398	354	316	283	254	229	207
5.5 (58 PSF)	400	400	400	400	400	400	400	400	400	400	400	368	330	297	268	242
6 (64 PSF)	400	400	400	400	400	400	400	400	400	400	400	400	378	340	307	278

REINFORCEMENT FOR TEMPERATURE & SHRINKAGE

Overall Slab Depth (in.)	Min. Welded Wire Reinforcement as per SDI	Wire Area (in <sup>2</sup> )
3.5	6X6 - W1.4X1.4	0.028
4	6X6 - W1.4X1.4	0.028
4.5	6X6 - W1.4X1.4	0.028
4.75	6X6 - W1.4X1.4	0.028
5	6X6 - W2.0X2.0	0.04
5.5	6X6 - W2.0X2.0	0.04
5.75	6X6 - W2.0X2.0	0.04
6	6X6 - W2.0X2.0	0.04

**NOTES:**

- Load tables are calculated using section properties based on the steel design thickness.
- Shoring requirements were established in accordance with SDI C-2011.
- Bending Moment and Deflection formulae are in accordance with ANSI/SDI C-2017.
- Span length assumes clear spans. Center-to-center spacing of supports can be used for design as a conservative assumption.
- Loads greater than 200 psf are usually the result of large concentrated dynamic loads. In such cases, contact OEG for additional design information.

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