

PRODUCT
Composite Deck

MEMBER
2CD474

GAGE
18

DESIGN METHOD
ASD

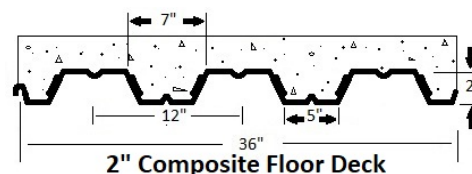
PHYSICAL PROPERTIES

Deck Type	Composite Deck
Design Thickness	0.0474
Weight	2.45
Area	0.721
KSI	50
Coating	G60



SECTION PROPERTIES

I_p (In ⁴)	0.548
I_n (In ⁴)	0.545
S_p (In ³)	0.478
S_n (In ³)	0.484



BARE DECK DESIGN

Bending Moment Positive (M_p/Ω)	14310
Bending Moment Negative (M_n/Ω)	14480
Shear Strength (V_n/Ω)	3585
Web Crippling OFE (R_{be}/Ω)	1008
Web Crippling OFI (R_{bi}/Ω)	1955

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

Slab Depth (in.)	20 PSF CONSTRUCTION LOAD	1-SPAN			2-SPAN			3-SPAN		
		1-SPAN	2-SPAN	3-SPAN	1-SPAN	2-SPAN	3-SPAN	1-SPAN	2-SPAN	3-SPAN
4 (39 PSF)	20 PSF CONSTRUCTION LOAD	12' 0"	12' 6"	13' 0"	10' 3"	10' 3"	10' 7"	9' 1"	9' 1"	9' 5"
4.5 (45 PSF)		11' 4"	12' 0"	12' 4"	9' 11"	9' 11"	10' 3"	8' 10"	8' 11"	9' 2"
5 (51 PSF)		10' 10"	11' 6"	11' 10"	9' 7"	9' 8"	10' 0"	8' 7"	8' 8"	9' 0"
5.5 (57 PSF)		10' 5"	11' 0"	11' 5"	9' 4"	9' 5"	9' 9"	8' 5"	8' 6"	8' 9"
6 (63 PSF)		10' 0"	10' 8"	11' 0"	9' 1"	9' 2"	9' 5"	8' 3"	8' 3"	8' 7"
6.5 (69 PSF)		9' 8"	10' 3"	10' 7"	8' 10"	8' 11"	9' 3"	8' 1"	8' 1"	8' 5"
7 (75 PSF)		9' 4"	9' 11"	10' 3"	8' 8"	8' 8"	9' 0"	7' 11"	8' 0"	8' 3"
7.25 (78 PSF)		9' 2"	9' 10"	10' 2"	8' 7"	8' 7"	8' 11"	7' 10"	7' 11"	8' 2"
7.5 (81 PSF)		9' 0"	9' 8"	10' 0"	8' 6"	8' 6"	8' 9"	7' 9"	7' 10"	8' 1"

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 2" for end bearing and 4" 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.)	4 (39 PSF)	4.5 (45 PSF)	5 (51 PSF)	5.5 (57 PSF)	6 (63 PSF)	6.5 (69 PSF)	7 (75 PSF)	7.25 (78 PSF)	7.5 (81 PSF)
Span (ft-in)	4' 3"	4' 1"	4' 0"	3' 11"	3' 10"	3' 9"	3' 8"	3' 7"	3' 7"

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

Slab Depth (in.)	4 (39 PSF)	4.5 (45 PSF)	5 (51 PSF)	5.5 (57 PSF)	6 (63 PSF)	6.5 (69 PSF)	7 (75 PSF)	7.25 (78 PSF)	7.5 (81 PSF)
Yield Moment (in-kip)	30.48	46.43	54.71	63.29	72.08	81.05	90.15	94.74	99.35

[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
4 (39 PSF)	400	400	400	400	373	320	276	240	209	184	162	143	127	112	100	89
4.5 (45 PSF)	400	400	400	400	400	400	400	381	335	296	262	233	208	187	167	151
5 (51 PSF)	400	400	400	400	400	400	400	400	397	351	311	277	248	222	200	180
5.5 (57 PSF)	400	400	400	400	400	400	400	400	400	400	362	323	289	260	234	211
6 (63 PSF)	400	400	400	400	400	400	400	400	400	400	400	370	332	298	268	242
6.5 (69 PSF)	400	400	400	400	400	400	400	400	400	400	400	400	375	337	304	274
7 (75 PSF)	400	400	400	400	400	400	400	400	400	400	400	400	400	377	340	307
7.25 (78 PSF)	400	400	400	400	400	400	400	400	400	400	400	400	400	397	358	324
7.5 (81 PSF)	400	400	400	400	400	400	400	400	400	400	400	400	400	400	377	340

REINFORCEMENT FOR TEMPERATURE & SHRINKAGE

Overall Slab Depth (in.)	Min. Welded Wire Reinforcement as per SDI	Wire Area (in ²)
4	6X6 - W1.4X1.4	0.028
4.5	6X6 - W1.4X1.4	0.028
5	6X6 - W1.4X1.4	0.028
5.5	6X6 - W2.0X2.0	0.04
6	6X6 - W2.0X2.0	0.04
6.5	6X6 - W2.0X2.0	0.04
7	6X6 - W2.0X2.0	0.04
7.25	6X6 - W2.9X2.9	0.058
7.5	6X6 - W2.9X2.9	0.058

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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