

New Millennium Building Systems Versa-Dek 3.5 LS Acoustical steel roof deck is secured to the structural supports. During construction 0.125 in. (3.2 mm) thick polyethylene lathe is loose laid in the bottom of the ribs. Nominal 3.0 pcf (48 kg/m<sup>3</sup>) fiberglass insulation 5.75 x 2 in. (146 x 50 mm) is loose laid within each rib opening. Minimum 2.0 in. (50 mm) thick FM Approved polyisocyanurate insulation is placed over the deck with insulation board edges bearing along the centerline of the deck top flange. 0.5 in. (13 mm) thick Retro-Fit Board is mechanically attached or secured with hot asphalt applied at 25 lb/sq (1.2 kg/m<sup>2</sup>) is placed over the insulation. Retro-Fit Board is covered with an FM Approved fully or partially adhered roof covering (three or four ply BUR or two, three or four ply modified bitumen roof cover mechanically attached or adhered with hot asphalt at 25 lb/sq (1.2 kg/m<sup>2</sup>) or single ply roof cover) or with a mechanically attached roof covering when the in-row fastener spacing is less than or equal to one-half of the deck span, per proprietary listings.

Versa-Dek 3.5 LS Acoustical has an 8 in. (203 mm) rib module spacing and requires minimum 2 in. (38 mm) thick polyisocyanurate insulation board be installed with edges along the centerline of the top flange. When utilizing an FM Approved above-deck system with a mechanically fastened cover, select one with a cover fastener spacing greater than the 8 in. (203 mm) and reduce this fastener spacing to coincide with placement of the fastener into the deck top flanges (e.g., FM Approved 12 in. (305 mm) spacing is reduced to 8 in. (203 mm) spacing; FM Approved 18 in. (457 mm) spacing is reduced to 16 in. (406 mm) spacing).

Go to [www.roofnav.com](http://www.roofnav.com) to obtain up to date information.

The maximum allowable span is the lesser of:

- the span shown in the tables below,
- the maximum span for the selected proprietary fastener used to secure the deck or
- the maximum span shown in the specified RoofNav assembly

The wind uplift rating of the completed roof assembly cannot exceed the wind rating of the above deck components shown in the specified RoofNav assembly.

The decks are secured to structural supports using fasteners FM Approved for securing steel deck to structural supports. Steel deck side laps are secured using fasteners FM Approved for securing steel deck laps. Refer to RoofNav product listings for fastener details.

In lieu of mechanical fasteners, the decks are secured to supports with puddle welds as noted in Tables below. The spacing shown is the maximum spacing permitted and the weld diameter shown is the minimum visible weld diameter. Maximum four sheets of 22 ga. (0.0295 in. [0.75 mm]) and 20 ga. (0.0358 in. [0.91 mm]) thick decks can be welded and maximum three sheets of 18 ga. (0.0474 in. [1.2 mm]) and two sheets of 16 ga. (0.0598 in. [1.52 mm]) thick decks can be welded.

<b>Versa-Dek 3.5 LS Acoustical</b>						
Secured with FM Approved fasteners or Secured with 0.75 in. (19 mm) diameter welds spaced 4 in. (102 mm) o.c.						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20 (0.0358 [0.91])	230	5842	230	5842	223	5664
18 (0.0474 [1.20])	268	6807	268	6807	262	6655
16 (0.0598 [1.52])	303	7696	303	7696	300	7620

Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20 (0.0358 [0.91])	253	6426	224	5690	203	5156
18 (0.0474 [1.20])	310	7874	273	6934	246	6248
16 (0.0598 [1.52])	357	9068	322	8179	290	7366
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20 (0.0358 [0.91])	271	6883	250	6350	227	5766
18 (0.0474 [1.20])	316	8026	305	7747	275	6985
16 (0.0598 [1.52])	357	9068	357	9068	325	8255

<b>Versa-Dek 3.5 LS Acoustical</b>						
Secured with 0.75 in. (19 mm) diameter welds spaced 8 in. (203 mm) o.c.						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20 (0.0358 [0.91])	230	5842	230	5842	223	5664
18 (0.0474 [1.20])	268	6807	268	6807	262	6655
16 (0.0598 [1.52])	303	7696	303	7696	300	7620
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20 (0.0358 [0.91])	192	4877	150	3810	123	3124
18 (0.0474 [1.20])	259	6579	201	5105	164	4166
16 (0.0598 [1.52])	335	8509	258	6553	209	5309
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20 (0.0358 [0.91])	240	6096	187	4750	154	3912
18 (0.0474 [1.20])	316	8026	252	6401	205	5207
16 (0.0598 [1.52])	357	9068	322	8179	261	6629

<b>Versa-Dek 3.5 LS Acoustical</b>						
Secured with 0.75 in. (19 mm) diameter welds spaced 6 in. (150 mm) o.c.						
Deck Design Thickness	Wind Rating - One Span					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20 (0.0358 [0.91])	230	5842	230	5842	223	5664
18 (0.0474 [1.20])	268	6807	268	6807	262	6655
16 (0.0598 [1.52])	303	7696	303	7696	300	7620
Deck Design Thickness	Wind Rating - Two Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20 (0.0358 [0.91])	253	6426	200	5080	164	4166
18 (0.0474 [1.20])	310	7874	268	6807	219	5563
16 (0.0598 [1.52])	357	9068	322	8179	279	7087
Deck Design Thickness	Wind Rating - Three or More Spans					
	1-60		1-75		1-90	
MSG (in. [mm])	in.	mm	in.	mm	in.	mm
20 (0.0358 [0.91])	271	6883	250	6350	205	5207
18 (0.0474 [1.20])	316	8026	305	7747	274	6960
16 (0.0598 [1.52])	357	9068	357	9068	325	8255