Metal Dek Group®
a unit of CSI®

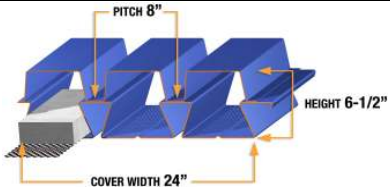
SUPER VERSA-DEK® 6.5 LS ACOUSTICAL ROOF (LSD)

6-1/2" high x 8" pitch x 24" wide

SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	Ip	Sp	Sn	Rbe			Rbi			Va
					2"	3"	4"	3"	4"	5"	
20/20	5.54	6.856	1.552	2.105	927	1062	1177	1724	1886	2029	4633
18/18	7.35	10.090	2.435	3.056	1565	1783	1966	2880	3136	3362	8121
16/16	9.28	13.510	3.478	4.171	2409	2729	2999	4403	4776	5103	11349



LSD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LSD LOADS (psf)								
		SINGLE SPAN			DOUBLE SPAN			TRIPLE SPAN		
Span	Load Combinations	GAGE								
		20/20	18/18	16/16	20/20	18/18	16/16	20/20	18/18	16/16
13' - 0"	α_DD+α_LL (Strength)	136*	232*	359*	109*	184*	282*	125*	210*	322*
	D+L (Deflection)	136	232	359	109	184	282	125	210	322
	L (Deflection)	136	201	269	109	184	282	125	210	322
14' - 0"	α_DD+α_LL (Strength)	125*	214*	333*	101*	170*	261*	116*	194*	299*
	D+L (Deflection)	125	214	314	101	170	261	116	194	299
	L (Deflection)	109	161	216	101	170	261	116	194	299
15' - 0"	α_DD+α_LL (Strength)	117*	200*	310*	94*	158*	243*	107*	181*	278*
	D+L (Deflection)	117	189	254	94	158	243	107	181	278
	L (Deflection)	89	131	175	94	158	243	107	181	278
16' - 0"	α_DD+α_LL (Strength)	109*	186*	290*	87*	148*	227*			
	D+L (Deflection)	104	154	207	87	148	227			
	L (Deflection)	73	108	144	87	148	227			
17' - 0"	α_DD+α_LL (Strength)	102*	175*	272*	82*	138*	213*			
	D+L (Deflection)	86	128	171	82	138	213			
	L (Deflection)	61	90	120	82	138	213			
18' - 0"	α_DD+α_LL (Strength)	96*	165*	246	77*	130*	201*			
	D+L (Deflection)	72	106	143	77	130	201			
	L (Deflection)	51	76	101	77	130	201			
19' - 0"	α_DD+α_LL (Strength)	91*	153	220	72*	121**	184**			
	D+L (Deflection)	60	89	120	72	121	184			
	L (Deflection)	44	64	86	72	121	184			
20' - 0"	α_DD+α_LL (Strength)	86*	137	197	67**	111**	168**			
	D+L (Deflection)	51	75	102	67	111	168			
	L (Deflection)	38	55	74	67	111	168			
21' - 0"	α_DD+α_LL (Strength)	78	123	178	61**	102**	154**			
	D+L (Deflection)	43	64	87	61	102	154			
	L (Deflection)	32	48	64	61	102	152			
22' - 0"	α_DD+α_LL (Strength)	70	112	161	56**	94**	141**			
	D+L (Deflection)	37	55	74	56	94	141			
	L (Deflection)	28	41	56	56	94	132			
23' - 0"	α_DD+α_LL (Strength)	63	101	146	52**	86**	130**			
	D+L (Deflection)	31	47	64	52	86	130			
	L (Deflection)	25	36	49	52	86	116			
24' - 0"	α_DD+α_LL (Strength)	58	92	133						
	D+L (Deflection)	27	41	55						
	L (Deflection)	22	32	43						
25' - 0"	α_DD+α_LL (Strength)	53	84	122						
	D+L (Deflection)	23	35	47						
	L (Deflection)	19	28	38						
26' - 0"	α_DD+α_LL (Strength)	48	77	112						
	D+L (Deflection)	20	30	41						
	L (Deflection)	17	25	34						

13' - 0"	α_DD+α_LL (Strength)	136*	Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	136	Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	136	Max. superimposed unfactored LSD live load (psf) (governed by deflection limitation of L/360)
▲			Vertical load span (center to center spacing)

Wd	Weight of deck (uncoated), psf	**Rbe**	Allowable exterior web crippling value per foot of deck width, plf
Ip	Moment of inertia for positive bending per foot of deck width, (in^4)/ft	**Rbi**	Allowable interior web crippling value per foot of deck width, plf
Sp	Section modulus for positive bending per foot of deck width, (in^3)/ft	**Va**	Allowable shear value per foot of deck width, plf
Sn	Section modulus for negative bending per foot of deck width, (in^3)/ft	**D**	Uniform dead load, psf
α_D, α_L	Load factors for D & L loads to be applied by Engineer in accordance with Building Codes.	**L**	Uniform live load, psf

Notes:

1. Bending strength based on allowable flexural stress of 36 ksi.
2. Loads marked with asterisk (*) are governed by interior reactions (web crippling) assuming 4" of interior bearing.
3. Loads marked with two asterisks (**) are governed by moment & shear or moment & reactions (web crippling) assuming 4" of interior bearing.
4. An upper limit of 400 psf has been applied to the loads.
5. Deck length over 45'-0" require inquiry and special accommodations. Please contact the Metal-Dek Group® for further information.

The section properties table is based on 2001 AISI's North American Specification for the Design of Cold-Formed Steel Structural Members (2004 Supplement).

Loads are calculated in accordance with requirements of CSSBI 10M-06.*Standard for Steel Roof Deck*.

REV: 2/13/09