NATRON WOOD PRODUCTS

6Ply/5 Layer 3/4 MDO

Design Capacities

Along Panel			Across Panel		
MOE	MOR	F_s	MOE	MOR	F_s
1,500,000	1,190	63	1,500,000	1,190	63
I		0.29	I		0.12
KS		0.63	KS		0.42
lb/Q		7.05	lb/Q		4.36
EI	F_bS	F_slb/Q	EI	F_bS	F_slb/Q
431,249	752	444	174,758	499	275

Tables derived on: January 3 2018
By: Eric Sporer, Manager, Laboratories, Technical Services Division

Panel Thickness (in.)	3/4	0.750
Duration of Load Factor	1.25	
Experience Factor	1.30	
Bending and Shear Deflection	2	Note: 1 = combined, 2 = separate

	No. of Spans	
SW =	PDS	[enter "PDS" or actual support width (in.)]
Spans =	PDS	[enter "PDS" or actual number of spans up to 3]
Panel length (in.) =	96	
Panel width (in.) =	48	

PDS note: For spans <48 in., SW assumed to be nominal 2x, for spans >= 48 in. nominal 4x assumed.
PDS note: When panel strength axis is across supports; spans <= 32 in., 3 spans are assumed, for spans >32 in. 2 spans are assumed. When panel strength axis is parallel supports; spans <= 16 in., 3 spans are assumed, for 16 in. >spans >=24 in. 2 spans are assumed, spans > 24 in., 1 span is assumed.

Panel Strength Axis Across Supports, Spans (o.c.)

	4	8	12	16	19.2	24	30	32	36	40	48	60
Applied SW =	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.5	3.5
L_1 (in.) =	4	8	12	16	19.2	24	30	32	36	40	48	60
L_2 (in.) =	2.5	6.5	10.5	14.5	17.7	22.5	28.5	30.5	34.5	38.5	44.5	56.5
L_3 (in.) =	3	7	11	15	18	23	29	31	35	39	45	57
SW Factor (in.) =	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.625	0.625
Applied Spans =	3	3	3	3	3	3	3	3	2	2	2	2

Panel Strength Axis Parallel to Supports, Spans (o.c.)

	4	8	12	16	19.2	24	30	32	36	40	48	60
Applied SW =	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	3.5	3.5
L_1 (in.) =	4	8	12	16	19.2	24	30	32	36	40	48	60
L_2 (in.) =	2.5	6.5	10.5	14.5	17.7	22.5	28.5	30.5	34.5	38.5	44.5	56.5
L_3 (in.) =	3	7	11	15	18	23	29	31	35	39	45	57
SW Factor (in.) =	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.625	0.625
Applied Spans =	3	3	3	3	2	2	1	1	1	1	1	1

Panel Strength Axis Across Supports, Spans (o.c.)

	4	8	12	16	19.2	24	30	32	36	40	48	60
L/360	13,235	2,880	1,120	535	325	175	90	75	65	50	30	15
L/270	17,650	3,840	1,495	715	435	230	120	100	85	65	45	20
Bending	9,170	2,295	1,020	575	400	255	165	145	90	75	50	35
Shear	5,770	2,220	1,375	995	815	640	505	475	400	360	310	245
Deflection*	0.00	0.02	0.03	0.05	0.07	0.10	0.15	0.17	0.14	0.17	0.21	0.37

Panel Strength Axis Parallel to Supports, Spans (o.c.)

	4	8	12	16	19.2	24	30	32	36	40	48	60
L/360	9,910	1,760	590	255	185	95	20	15	10	10	5	5
L/270	13,215	2,350	785	340	245	125	30	25	15	10	10	5
Bending	6,080	1,520	675	380	210	135	85	75	60	50	35	20
Shear	3,570	1,375	850	615	485	380	375	350	310	280	240	190
Deflection*	0.00	0.02	0.04	0.07	0.06	0.10	0.34	0.39	0.50	0.64	0.83	1.21

* Average deflection at maximum recommended load based on strength (in.)

The Following Is A Short Table Of Net Results From The Load-Span Table:
(Recommended loads less than 100 psf are not shown - English units only)

Panel Strength Axis Across Supports, Spans (o.c.)

	4	8	12	16	19.2	24	30	32	36	40	48	60
L/360	5,770	2,220	1,020	535	325	175	---	---	---	---	---	---
L/270	5,770	2,220	1,020	575	400	230	120	100	---	---	---	---

Panel Strength Axis Parallel to Supports, Spans (o.c.)

	4	8	12	16	19.2	24	30	32	36	40	48	60
L/360	3,570	1,375	590	255	185	---	---	---	---	---	---	---
L/270	3,570	1,375	675	340	210	125	---	---	---	---	---	---

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