

## 601. MACHINE STRESS RATED LUMBER

ALLOWABLE DESIGN VALUES (psi)				
Fiber Stress in Bending "F <sub>b</sub> " <sup>(1)</sup>	"f-E" Classification	Modulus of Elasticity (million psi) "E"	Tension Parallel to Grain "F <sub>t</sub> "	Compression Parallel to Grain "F <sub>c  </sub> "
900	900f-1.0E	1.0	350	1050
1050	1050f-1.2E	1.2	450	1225
1200	1200f-1.3E	1.3	600	1400
1350	1350f-1.4E	1.4	750	1600
1450	1450f-1.3E	1.3	825	1600
1500	1500f-1.5E	1.5	900	1650
1500	1500f-1.6E	1.6	900	1650
1500	1500f-1.7E	1.7	900	1650
1650	1650f-1.5E	1.5	1020	1700
1650	1650f-1.6E	1.6	1020	1700
1650	1650f-1.7E	1.7	1020	1750
1800	1800f-1.6E	1.6	1175	1750
1850	1850f-1.7E	1.7	1175	1850
1950	1950f-1.7E	1.7	1375	1800
2100	2100f-1.8E	1.8	1575	1875
2250	2250f-1.9E	1.9	1750	1925
2400	2400f-2.0E	2.0	1925	1975
2550	2550f-2.1E	2.1	2050	2025
2700	2700f-2.2E	2.2	2150	2100
2850	2850f-1.8E	1.8	1600	2100
2850	2850f-2.0E	2.0	1925	2100
2850	2850f-2.3E	2.3	2300	2150
3000	3000f-2.4E	2.4	2400	2200
Major Species Southern Yellow Pine:				
E Level	F <sub>V</sub>	F <sub>c⊥</sub>	Specific Gravity	
1.7 million psi and less:	175 psi	565 psi	0.55	
1.8 million psi:	See Section 600.5 (a)			
1.9 million psi and higher:	190 psi	805 psi	0.57	

**Table 600-1: MSR design values**

(1) The tabulated Extreme Fiber bending values "F<sub>b</sub>" are applicable to lumber loaded on edge. When loaded flatwise, these values may be increased by multiplying by the following factors:

## 611. MACHINE EVALUATED LUMBER

ALLOWABLE DESIGN VALUES (psi)				
Grade Name	Fiber Stress in Bending "F <sub>b</sub> " <sup>(1)</sup>	Tension Parallel to Grain "F <sub>t</sub> "	Compression Parallel to Grain "F <sub>c∥</sub> "	Modulus of Elasticity (million psi) "E"
M-5	900	500	1050	1.1
M-6	1100	600	1300	1.0
M-7	1200	650	1400	1.1
M-8	1300	700	1500	1.3
M-9	1400	800	1600	1.4
M-11	1550	850	1675	1.5
M-12	1600	850	1675	1.6
M-14	1800	1000	1750	1.7
M-15	1800	1100	1750	1.5
M-18	2000	1200	1825	1.8
M-19	2000	1300	1825	1.6
M-21	2300	1400	1950	1.9
M-22	2350	1500	1950	1.7
M-23	2400	1900	1975	1.8
M-24	2700	1800	2100	1.9
M-25	2750	2000	2100	2.2
M-26	2800	1800	2150	2.0
M-28	2200	1600	1900	1.7
M-29	1550	850	1650	1.7
M-30	2050	1050	1850	1.7
M-31	2850	1600	2150	1.9
Major Species Southern Yellow Pine:				
E Level	F <sub>v</sub>	F <sub>c⊥</sub>	Specific Gravity	
1.7 million psi and less:	175 psi	565 psi	0.55	
1.8 million psi:	See Section 610.5 (b)			
1.9 million psi and higher:	190 psi	805 psi	0.57	

**Table 600-4: MEL design values**

(1) The tabulated Extreme Fiber bending values "F<sub>b</sub>" are applicable to lumber loaded on edge. When loaded flatwise, these values may be increased by multiplying by the following factors: