MetFloor® 55

Single span decking / single span concrete (Fire Engineering Method)

Props	Fire Period	Slab Depth (mm	Mesh 0.1% min. req'd	Total Applied Load (kN/m²)											
				3.5	5	7.5	10	3.5	5	7.5	10	3.5	5	7.5	10
				0.9mm				1.0mm				1.2mm			
None	60 minutes	100	A142	2.97*	2.97*	2.97*	2.97*	3.22*	3.22*	3.22*	3.22*	3.40*	3.40*	3.40*	3.40*
		110	A142	2.89*	2.89*	2.89*	2.89*	3.14*	3.14*	3.14*	3.14*	3.31*	3.31*	3.31*	3.31*
		120	A142	2.80*	2.80*	2.80*	2.80*	3.07*	3.07*	3.07*	3.07*	3.23*	3.23*	3.23*	3.23*
		130	A142	2.73*	2.73*	2.73*	2.73*	3.01*	3.01*	3.01*	3.01*	3.17*	3.17*	3.17*	3.17*
		140	A142	2.67*	2.67*	2.67*	2.67*	2.93*	2.93*	2.93*	2.93*	3.10*	3.10*	3.10*	3.10*
		150	A142	2.61*	2.61*	2.61*	2.61*	2.87*	2.87*	2.87*	2.87*	3.04*	3.04*	3.04*	3.04*
		160	A193	2.56*	2.56*	2.56*	2.56*	2.80*	2.80*	2.80*	2.80*	2.98*	2.98*	2.98*	2.98*
		170	A193	2.51*	2.51*	2.51*	2.51*	2.74*	2.74*	2.74*	2.74*	2.93*	2.93*	2.93*	2.93*
		180	A193	2.46*	2.46*	2.46*	2.46*	2.69*	2.69*	2.69*	2.69*	2.88*	2.88*	2.88*	2.88*
		190	A193	2.42*	2.42*	2.42*	2.42*	2.63*	2.63*	2.63*	2.63*	2.84*	2.84*	2.84*	2.84*
		200	A193	2.38*	2.38*	2.38*	2.38*	2.59*	2.59*	2.59*	2.59*	2.80*	2.80*	2.80*	2.80*
None	90 minutes	110	A142	2.89*	2.89*	2.89*	2.89*	3.14*	3.14*	3.14*	3.14*	3.31*	3.31*	3.31*	3.31*
		120	A142	2.80*	2.80*	2.80*	2.80*	3.07*	3.07*	3.07*	3.07*	3.23*	3.23*	3.23*	3.23*
		130	A142	2.73*	2.73*	2.73*	2.73*	3.01*	3.01*	3.01*	3.01*	3.17*	3.17*	3.17*	3.17*
		140	A142	2.67*	2.67*	2.67*	2.67*	2.93*	2.93*	2.93*	2.93*	3.10*	3.10*	3.10*	3.10*
		150	A142	2.61*	2.61*	2.61*	2.61*	2.87*	2.87*	2.87*	2.87*	3.04*	3.04*	3.04*	3.04*
		160	A193	2.56*	2.56*	2.56*	2.56*	2.80*	2.80*	2.80*	2.80*	2.98*	2.98*	2.98*	2.98*
		170	A193	2.51*	2.51*	2.51*	2.51*	2.74*	2.74*	2.74*	2.74*	2.93*	2.93*	2.93*	2.93*
		180	A193	2.46*	2.46*	2.46*	2.46*	2.69*	2.69*	2.69*	2.69*	2.88*	2.88*	2.88*	2.88*
		190	A193	2.42*	2.42*	2.42*	2.42*	2.63*	2.63*	2.63*	2.63*	2.84*	2.84*	2.84*	2.84*
		200	A193	2.38*	2.38*	2.38*	2.38*	2.59*	2.59*	2.59*	2.59*	2.80*	2.80*	2.80*	2.80*
None	120 minutes	125	A142	2.77*	2.77*	2.77*	2.77*	3.04*	3.04*	3.04	3.04*	3.20*	3.20*	3.20*	3.20*
		130	A142	2.73*	2.73*	2.73*	2.73*	3.01*	3.01*	3.01*	3.01*	3.17*	3.17*	3.17*	3.17*
		140	A142	2.67*	2.67*	2.67*	2.67*	2.93*	2.93*	2.93*	2.93*	3.10*	3.10*	3.10*	3.10*
		150	A142	2.61*	2.61*	2.61*	2.61*	2.87*	2.87*	2.87*	2.87*	3.04*	3.04*	3.04*	3.04*
		160	A193	2.56*	2.56*	2.56*	2.56*	2.80*	2.80*	2.80*	2.80*	2.98*	2.98*	2.98*	2.98*
		170	A193	2.51*	2.51*	2.51*	2.51*	2.74*	2.74*	2.74*	2.74*	2.93*	2.93*	2.93*	2.93*
		180	A193	2.46*	2.46*	2.46*	2.46*	2.69*	2.69*	2.69*	2.69*	2.88*	2.88*	2.88*	2.88*
		190	A193	2.42*	2.42*	2.42*	2.42*	2.63*	2.63*	2.63*	2.63*	2.84*	2.84*	2.84*	2.84*
		200	A193	2.38*	2.38*	2.38*	2.38*	2.59*	2.59*	2.59*	2.59*	2.80*	2.80*	2.80*	2.80*

Double span decking / continuous concrete

Props	Fire Period	Slab Depth (mm	Mesh 0.1% min. req'd	Total Applied Load (kN/m²)											
				3.5	5	7.5	10	3.5	5	7.5	10	3.5	5	7.5	10
				0.9mm				1.0mm				1.2mm			
None	60 minutes	100	A142	3.44	3.44	3.44*	3.40*	3.74	3.74	3.72*	3.45*	4.21	4.21*	3.88*	3.54*
		110	A142	3.35	3.35	3.35*	3.34*	3.65	3.65	3.63*	3.60*	4.11	4.11	4.10*	3.85*
		120	A142	3.30	3.30	3.30	3.30*	3.56	3.56	3.56*	3.54*	4.01	4.01	4.01*	4.00*
		130	A142	3.27	3.27	3.27	3.27*	3.47	3.47	3.47	3.47*	3.92	3.92	3.92	3.91*
		140	A142	3.20	3.20	3.20	3.20	3.40	3.40	3.40	3.40*	3.84	3.84	3.84	3.84*
		150	A142	3.12	3.12	3.12	3.12	3.37	3.37	3.37	3.37	3.76	3.76	3.76	3.76*
		160	A193	3.05	3.05	3.05	3.05	3.33	3.33	3.33	3.33	3.68	3.68	3.68	3.68
		170	A193	2.99	2.99	2.99	2.99	3.27	3.27	3.27	3.27	3.61	3.61	3.61	3.61
		180	A193	2.92	2.92	2.92	2.92	3.21	3.21	3.21	3.21	3.54	3.54	3.54	3.54
		190	A193	2.85	2.85	2.85	2.85	3.15	3.15	3.15	3.15	3.50	3.50	3.50	3.50
		200	A193	2.80	2.80	2.80	2.80	3.09	3.09	3.09	3.09	3.44	3.44	3.44	3.44
None	90 minutes	110	A142	3.35	3.35*	3.34*	3.33*	3.65	3.63*	3.63*	3.60*	4.11*	4.09*	4.08*	3.85*
		120	A142	3.30	3.30	3.30*	3.29*	3.56	3.56*	3.54*	3.54*	4.01	4.00*	4.00*	3.99*
		130	A142	3.27	3.27	3.27*	3.26*	3.47	3.47	3.47*	3.46*	3.92	3.91*	3.91*	3.91*
		140	A142	3.20	3.20	3.19*	3.18*	3.40	3.40	3.40*	3.39*	3.84	3.84	3.83*	3.83*
		150	A142	3.12	3.12	3.12	3.12*	3.37	3.37	3.37*	3.36*	3.76	3.76	3.75*	3.75*
		160	A193	3.05	3.05	3.05	3.05	3.33	3.33	3.33	3.33*	3.68	3.68	3.68	3.68
		170	A193	2.99	2.99	2.99	2.99	3.27	3.27	3.27	3.26*	3.61	3.61	3.61	3.61
		180	A193	2.92	2.92	2.92	2.92	3.21	3.21	3.21	3.21	3.54	3.54	3.54	3.54
		190	A193	2.85	2.85	2.85	2.85	3.15	3.15	3.15	3.15	3.50	3.50	3.50	3.50
		200	A193	2.80	2.80	2.80	2.80	3.09	3.09	3.09	3.09	3.44	3.44	3.44	3.44
None	120 minutes	125	A142	3.30*	3.29*	3.29*	3.29*	3.51*	3.50*	3.50*	3.50*	3.95*	3.95*	3.95*	3.95*
		130	A142	3.27*	3.27*	3.26*	3.26*	3.47*	3.47*	3.46*	3.46*	3.92*	3.91*	3.91*	3.90*
		140	A142	3.19*	3.19*	3.18*	3.18*	3.40*	3.40*	3.39*	3.39*	3.84*	3.83*	3.83*	3.83*
		150	A142	3.12	3.12*	3.11*	3.11*	3.37*	3.37*	3.36*	3.36*	3.76*	3.75*	3.75*	3.75*
		160	A193	3.05	3.05	3.05*	3.05*	3.33	3.33*	3.33*	3.33*	3.68	3.68*	3.68*	3.68*
		170	A193	2.99	2.99	2.99*	2.98*	3.27	3.27	3.26*	3.26*	3.61	3.61*	3.61*	3.61*
		180	A193	2.92	2.92	2.92	2.92*	3.21	3.21	3.21*	3.20*	3.54	3.54	3.54*	3.54*
		190	A193	2.85	2.85	2.85	2.85*	3.15	3.15	3.14*	3.14*	3.50	3.50	3.49*	3.49*
		200	A193	2.80	2.80	2.80	2.80*	3.09	3.09	3.09	3.04*	3.44	3.44	3.44*	3.44*

MetFloor® 55 – Propped

Single span decking / single span concrete (Fire Engineering Method)

Props	Fire Period	Slab Depth (mm	Mesh 0.1% min. req'd	Total Applied Load (kN/m²)											
				3.5	5	7.5	10	3.5	5	7.5	10	3.5	5	7.5	10
				0.9mm				1.0mm				1.2mm			
One	60 minutes	100	A142	4.32*	4.03*	3.71*	3.40*	4.37*	4.09*	3.75*	3.43*	4.45*	4.17*	3.82*	3.51*
		110	A142	4.63*	4.35*	4.00*	3.70*	4.69*	4.40*	4.04*	3.73*	4.77*	4.48*	4.12*	3.82*
		120	A142	4.95*	4.67*	4.30*	4.03*	5.01*	4.71*	4.34*	4.05*	5.07*	4.79*	4.42*	4.13*
		130	A142	5.21*	4.98*	4.60*	4.33*	5.24*	5.02*	4.64*	4.35*	5.31*	5.08*	4.72*	4.43*
		140	A142	5.44*	5.21*	4.93*	4.64*	5.47*	5.24*	4.93*	4.67*	5.54*	5.31*	5.01*	4.73*
		150	A142	5.70*	5.47*	5.18*	4.94*	5.73*	5.50*	5.21*	4.97*	5.78*	5.55*	5.26*	5.03*
		160	A193	5.83*	5.68*	5.41*	5.18*	5.87*	5.73*	5.44*	5.21*	6.01*	5.78*	5.49*	5.25*
		170	A193	5.73*	5.74*	5.58*	5.40*	6.09*	5.92*	5.61*	5.42*	6.25*	6.02*	5.67*	5.00*
		180	A193	5.62*	5.60*	5.58*	5.51*	5.99*	5.99*	5.83*	5.64*	6.47*	6.25*	5.89*	5.47*
		190	A193	5.49*	5.47*	5.47*	5.45*	5.89*	5.89*	5.81*	5.76*	6.60*	6.45*	6.16*	5.90*
		200	A193	5.36*	5.36*	5.35*	5.35*	5.76*	5.74*	5.74*	5.72*	6.61*	6.53*	6.35*	6.12*
One	90 minutes	110	A142	4.63*	4.35*	4.00*	3.70*	4.69*	4.40*	4.04*	3.73*	4.77*	4.48*	4.12*	3.82*
		120	A142	4.95*	4.67*	4.30*	4.03*	5.01*	4.71*	4.34*	4.05*	5.07*	4.79*	4.42*	4.13*
		130	A142	5.21*	4.98*	4.60*	4.33*	5.24*	5.02*	4.64*	4.35*	5.31*	5.08*	4.72*	4.43*
		140	A142	5.44*	5.21*	4.93*	4.64*	5.47*	5.24*	4.93*	4.67*	5.54*	5.31*	5.01*	4.73*
		150	A142	5.70*	5.47*	5.18*	4.94*	5.73*	5.50*	5.21*	4.97*	5.78*	5.55*	5.26*	5.03*
		160	A193	5.83*	5.68*	5.41*	5.18*	5.87*	5.73*	5.44*	5.21*	6.01*	5.78*	5.49*	5.25*
		170	A193	5.73*	5.74*	5.58*	5.40*	6.09*	5.92*	5.61*	5.42*	6.25*	6.02*	5.67*	5.00*
		180	A193	5.62*	5.60*	5.58*	5.51*	5.99*	5.99*	5.83*	5.64*	6.47*	6.25*	5.89*	5.47*
		190	A193	5.49*	5.47*	5.47*	5.45*	5.89*	5.89*	5.81*	5.76*	6.60*	6.45*	6.16*	5.90*
		200	A193	5.36*	5.36*	5.35*	5.35*	5.76*	5.74*	5.74*	5.72*	6.61*	6.53*	6.35*	6.12*
One	120 minutes	125	A142	5.09*	4.82*	4.45*	4.18*	5.12*	4.87*	4.48*	4.20*	5.19*	4.95*	4.57*	4.28*
		130	A142	5.21*	4.98*	4.60*	4.33*	5.24*	5.02*	4.64*	4.35*	5.31*	5.08*	4.72*	4.43*
		140	A142	5.44*	5.21*	4.93*	4.64*	5.47*	5.24*	4.93*	4.67*	5.54*	5.31*	5.01*	4.73*
		150	A142	5.70*	5.47*	5.18*	4.94*	5.73*	5.50*	5.21*	4.97*	5.78*	5.55*	5.26*	5.03*
		160	A193	5.83*	5.68*	5.41*	5.18*	5.87*	5.73*	5.44*	5.21*	6.01*	5.78*	5.49*	5.25*
		170	A193	5.73*	5.74*	5.58*	5.40*	6.09*	5.92*	5.61*	5.42*	6.25*	6.02*	5.67*	5.00*
		180	A193	5.62*	5.60*	5.58*	5.51*	5.99*	5.99*	5.83*	5.64*	6.47*	6.25*	5.89*	5.47*
		190	A193	5.49*	5.47*	5.47*	5.45*	5.89*	5.89*	5.81*	5.76*	6.60*	6.45*	6.16*	5.90*
		200	A193	5.36*	5.36*	5.35*	5.32*	5.76*	5.74*	5.74*	5.72*	6.61*	6.53*	6.35*	6.12*

Double span decking / continuous concrete

Props	Fire Period	Slab Depth (mm	Mesh 0.1% min. req'd	Total Applied Load (kN/m²)											
				3.5	5	7.5	10	3.5	5	7.5	10	3.5	5	7.5	10
				0.9mm				1.0mm				1.2mm			
One	60 minutes	100	A142	4.42*	4.10*	3.72*	3.40*	4.45*	4.15*	3.77*	3.44*	4.54*	4.24*	3.85*	3.51*
		110	A142	4.73*	4.42*	4.04*	3.70*	4.78*	4.47*	4.09*	3.75*	4.87*	4.56*	4.17*	3.82*
		120	A142	5.05*	4.74*	4.36*	4.05*	5.08*	4.79*	4.40*	4.08*	5.16*	4.88*	4.48*	4.13*
		130	A142	5.30*	5.05*	4.68*	4.38*	5.33*	5.08*	4.72*	4.42*	5.40*	5.15*	4.78*	4.49*
		140	A142	5.54*	5.28*	5.00*	4.70*	5.57*	5.32*	5.03*	4.74*	5.64*	5.39*	5.07*	4.80*
		150	A142	5.80*	5.56*	5.25*	5.01*	5.83*	5.59*	5.28*	5.03*	5.88*	5.64*	5.33*	5.08*
		160	A193	5.98*	5.79*	5.48*	5.24*	6.07*	5.83*	5.51*	5.26*	6.13*	5.88*	5.56*	5.31*
		170	A193	5.90*	5.88*	5.66*	5.46*	6.20*	6.02*	5.74*	5.48*	6.36*	6.11*	5.79*	5.53*
		180	A193	5.77*	5.77*	5.74*	5.56*	6.13*	6.13*	5.94*	5.71*	6.53*	6.30*	6.02*	5.75*
		190	A193	5.63*	5.63*	5.61*	5.60*	6.03*	5.96*	5.96*	5.86*	6.60*	6.46*	6.18*	5.97*
		200	A193	5.47*	5.45*	5.45*	5.45*	5.92*	5.92*	5.89*	5.89*	6.56*	6.54*	6.35*	6.09*
One	90 minutes	110	A142	4.73*	4.42*	4.04*	3.70*	4.78*	4.47*	4.09*	3.75*	4.87*	4.56*	4.17*	3.82*
		120	A142	5.05*	4.74*	4.36*	4.05*	5.08*	4.79*	4.40*	4.08*	5.16*	4.88*	4.48*	4.13*
		130	A142	5.30*	5.05*	4.68*	4.38*	5.33*	5.08*	4.72*	4.42*	5.40*	5.15*	4.78*	4.49*
		140	A142	5.54*	5.28*	5.00*	4.70*	5.57*	5.32*	5.03*	4.74*	5.64*	5.39*	5.07*	4.80*
		150	A142	5.80*	5.56*	5.25*	5.01*	5.83*	5.59*	5.28*	5.03*	5.88*	5.64*	5.33*	5.08*
		160	A193	5.98*	5.79*	5.48*	5.24*	6.07*	5.83*	5.51*	5.26*	6.13*	5.88*	5.56*	5.31*
		170	A193	5.90*	5.88*	5.66*	5.46*	6.20*	6.02*	5.74*	5.48*	6.36*	6.11*	5.79*	5.53*
		180	A193	5.77*	5.77*	5.74*	5.56*	6.13*	6.13*	5.94*	5.71*	6.53*	6.30*	6.02*	5.75*
		190	A193	5.63*	5.63*	5.61*	5.60*	6.03*	5.96*	5.96*	5.86*	6.60*	6.46*	6.18*	5.97*
		200	A193	5.49*	5.45*	5.45*	5.45*	5.92*	5.92*	5.89*	5.89*	6.56*	6.54*	6.35*	6.09*
One	120 minutes	125	A142	5.05*	4.74*	4.36*	4.05*	5.08*	4.79*	4.40*	4.08*	5.16*	4.88*	4.48*	4.13*
		130	A142	5.30*	5.05*	4.68*	4.38*	5.33*	5.08*	4.72*	4.42*	5.40*	5.15*	4.78*	4.49*
		140	A142	5.54*	5.28*	5.00*	4.70*	5.57*	5.32*	5.03*	4.74*	5.64*	5.39*	5.07*	4.80*
		150	A142	5.80*	5.56*	5.25*	5.01*	5.83*	5.59*	5.28*	5.03*	5.88*	5.64*	5.33*	5.08*
		160	A193	5.98*	5.79*	5.48*	5.24*	6.07*	5.83*	5.51*	5.26*	6.13*	5.88*	5.56*	5.31*
		170	A193	5.90*	5.88*	5.66*	5.46*	6.20*	6.02*	5.74*	5.48*	6.36*	6.11*	5.79*	5.53*
		180	A193	5.77*	5.77*	5.74*	5.56*	6.13*	6.13*	5.94*	5.71*	6.53*	6.30*	6.02*	5.75*
		190	A193	5.63*	5.63*	5.61*	5.60*	6.03*	5.96*	5.96*	5.86*	6.60*	6.46*	6.18*	5.97*
		200	A193	5.49*	5.45*	5.45*	5.45*	5.92*	5.92*	5.89*	5.89*	6.56*	6.54*	6.35*	6.09*