

# FLOOR-CEILING ASSEMBLIES WITH COMPOSITE DECK

Restrained Assembly Rating	Type of Protection	Concrete Thickness & Type (1)	Classified Deck Type	U.L. Design No. (2, 3, 4)	Unrestrained Beam Rating
¼ Hr.	Unprotected Deck	2 ½" LW	1.5CF, 2CF, 3CF	D914	1 Hr.
			1.5CF, 2CF, 3CF	D916	1, 1.5, 2, 3 Hr.
1 Hr.	Exposed Grid	2 ½" NW	1.5CF, 2CF, 3CF	D216	2, 3 Hr.
	Cementitious	2" NW&LW	2CF, 3CF	D743	1, 1.5, 2, 3 Hr.
			1.5CF, 2CF, 3CF	D703	1.5 Hr.
		2 ½" NW&LW	1.5CF, 2CF, 3CF	D712	2 Hr.
			1.5CF, 2CF, 3CF	D722	1, 1.5, 2 Hr.
			1.5CF, 2CF, 3CF	D739	1, 1.5, 2, 3, 4 Hr.
	Sprayed Fiber	2" NW&LW	1.5CF, 2CF, 3CF	D859	1, 1.5, 2, 3 Hr.
			1.5CF, 2CF, 3CF	D832	1, 1.5, 2, 3 Hr.
		2 ½" NW&LW	2CF, 3CF	D847	1, 1.5, 3 Hr.
			1.5CF, 2CF, 3CF	D858	1, 1.5, 2, 4 Hr.
	Unprotected Deck	2 ½" LW	1.5CF, 2CF, 3CF	D902	1, 1.5 Hr.
			1.5CF, 2CF, 3CF	D914	1 Hr.
			1.5CF, 2CF, 3CF	D916	1, 1.5, 2, 3 Hr.
			1.5CF, 2CF, 3CF	D918	1, 1.5 Hr.
			1.5CF, 2CF, 3CF	D919	1, 1.5 Hr.
		3 ½" NW	1.5CF, 2CF, 3CF	D902	1, 1.5 Hr.
			1.5CF, 2CF, 3CF	D916	1, 1.5, 2, 3 Hr.
			1.5CF, 2CF, 3CF	D918	1, 1.5 Hr.
			1.5CF, 2CF, 3CF	D919	1, 1.5 Hr.
			1.5CF, 2CF, 3CF	D919	1, 1.5 Hr.
1 ½ Hr.	Gypsum Board	2 ½" NW	1.5CF, 2CF, 3CF	D502	1.5, 2 Hr.
	Cementitious	2" NW&LW	2CF, 3CF	D743	1, 1.5, 2, 3 Hr.
			1.5CF, 2CF, 3CF	D703	1.5 Hr.
		2 ½" NW&LW	1.5CF, 2CF, 3CF	D712	2 Hr.
			2CF, 3CF	D722	1, 1.5, 2 Hr.
			1.5CF, 2CF, 3CF	D739	1, 1.5, 2, 3, 4 Hr.
	Sprayed Fiber	2" NW&LW	1.5CF, 2CF, 3CF	D859	1, 1.5, 2, 3 Hr.
			1.5CF, 2CF, 3CF	D832	1, 1.5, 2, 3 Hr.
		2 ½" NW&LW	2CF, 3CF	D847	1, 1.5, 3 Hr.
			1.5CF, 2CF, 3CF	D858	1, 1.5, 2, 4 Hr.
	Unprotected Deck	3" LW	1.5CF, 2CF, 3CF	D902	1, 1.5 Hr.
			1.5CF, 2CF, 3CF	D916	1, 1.5, 2, 3 Hr.
			1.5CF, 2CF, 3CF	D919	1, 1.5 Hr.
		4" NW	1.5CF, 2CF, 3CF	D902	1, 1.5 Hr.
			1.5CF, 2CF, 3CF	D916	1, 1.5, 2, 3 Hr.
			1.5CF, 2CF, 3CF	D918	1, 1.5 Hr.
1.5CF, 2CF, 3CF			D919	1, 1.5 Hr.	
2 Hr.	Exposed Grid	2 ½" NW	1.5CF, 2CF, 3CF	D216	2, 3 Hr.
	Gypsum Board	2 ½" NW	1.5CF, 2CF, 3CF	D502	1.5, 2 Hr.
	Cementitious	2" NW&LW	2CF, 3CF	D743	1, 1.5, 2, 3 Hr.
			1.5CF	D746	1, 1.5, 2, 3 Hr.
		2 ½" LW	1.5CF, 2CF, 3CF	D752	1, 1.5, 2 Hr.
			1.5CF, 2CF, 3CF	D703	1.5 Hr.
			1.5CF, 2CF, 3CF	D712	2 Hr.
			1.5CF, 2CF, 3CF	D716	1.5, 2 Hr.
			2CF, 3CF	D722	1, 1.5, 2 Hr.
			1.5CF, 2CF, 3CF	D739	1, 1.5, 2, 3, 4 Hr.
			2CF, 3CF	D745	1, 1.5, 2 Hr.
			1.5CF, 2CF, 3CF	D755	1, 1.5, 2, 3 Hr.
	2 ½" NW	2CF, 3CF	D730	1.5, 2 Hr.	
		1.5CF, 2CF, 3CF	D742	1, 1.5 Hr.	

**NOTES:**

1. Concrete thickness is thickness of slab above deck, in.
2. Refer to the U.L. "Fire Resistance Directory" for the necessary construction details.

3. Deck finish shall be galvanized

# FLOOR-CEILING ASSEMBLIES WITH COMPOSITE DECK

Restrained Assembly Rating	Type of Protection	Concrete Thickness & Type (1)	Classified Deck Type	U.L. Design No. (2, 3, 4)	Unrestrained Beam Rating
2 Hr. (continued)	Sprayed Fiber	2 ½" LW	1.5CF, 2CF, 3CF	D859	1, 1.5, 2, 3 Hr.
		2 ½" NW&LW	2CF, 3CF	D822	1 Hr.
			1.5CF, 2CF, 3CF	D825	1, 1.5, 2 Hr.
			1.5CF, 2CF, 3CF	D831	1, 1.5, 2 Hr.
			1.5CF, 2CF, 3CF	D832	1, 1.5, 2, 3 Hr.
			1.5CF, 2CF, 3CF	D833	1.5 Hr.
			2CF, 3CF	D847	1, 1.5, 3 Hr.
			1.5CF, 2CF, 3CF	D858	1, 1.5, 2, 4 Hr.
			2CF, 3CF	D861	1, 1.5 Hr.
		1.5CF, 2CF, 3CF	D870	1, 2 Hr.	
	2 ½" LW	2CF, 3CF	D862	1 Hr.	
	3 ¼" LW	1.5CF, 2CF, 3CF	D860	1, 1.5, 2 Hr.	
	Unprotected Deck	3 ¼" LW	1.5CF, 2CF, 3CF	D733	1, 1.5 Hr.
			1.5CF, 2CF, 3CF	D826	1, 1.5, 2 Hr.
			1.5CF, 2CF, 3CF	D840	1, 1.5 Hr.
			1.5CF, 2CF, 3CF	D902	1, 1.5 Hr.
			1.5CF, 2CF, 3CF	D913	1 Hr.
			1.5CF, 2CF, 3CF	D916	1, 1.5, 2, 3 Hr.
			1.5CF, 2CF, 3CF	D918	1, 1.5 Hr.
			1.5CF, 2CF, 3CF	D919	1, 1.5 Hr.
		1.5CF, 2CF, 3CF	D920	1.5 Hr.	
4 ½" NW		1.5CF, 2CF, 3CF	D902	1, 1.5 Hr.	
		1.5CF, 2CF, 3CF	D916	1, 1.5, 2, 3 Hr.	
	1.5CF, 2CF, 3CF	D918	1, 1.5 Hr.		
		1.5CF, 2CF, 3CF	D919	1, 1.5 Hr.	
3 Hr.	Exposed Grid	3 ¼" NW	1.5CF, 2CF, 3CF	D216	2, 3 Hr.
	Cementitious	2" NW&LW	2CF, 3CF	D743	1, 1.5, 2, 3 Hr.
		2 ½" LW	1.5CF	D746	1, 1.5, 2, 3 Hr.
		2 ½" NW&LW	1.5CF, 2CF, 3CF	D703	1.5 Hr.
			1.5CF, 2CF, 3CF	D708	1.5, 3 Hr.
			1.5CF, 2CF, 3CF	D739	1, 1.5, 2, 3, 4 Hr.
			1.5CF, 2CF, 3CF	D755	1, 1.5, 2, 3 Hr.
		3 ¼" LW	1.5CF, 2CF, 3CF	D754	1.5, 2 Hr.
	3 ½" NW	1.5CF, 2CF, 3CF	D742	1, 1.5 Hr.	
	Sprayed Fiber	2" NW&LW	1.5CF, 2CF, 3CF	D859	1, 1.5, 2, 3 Hr.
		2 ½" NW&LW	1.5CF, 2CF, 3CF	D816	1.5, 2 Hr.
			2CF, 3CF	D831	1, 1.5, 2 Hr.
			1.5CF, 2CF, 3CF	D832	1, 1.5, 2, 3 Hr.
			1.5CF, 2CF, 3CF	D833	1.5 Hr.
			1.5CF, 2CF, 3CF	D858	1, 1.5, 2, 4 Hr.
		2CF, 3CF	D871	1, 1.5, 2, 3 Hr.	
		2 ½" NW	3CF	D864	1.5 Hr.
		3 ¼" LW	2CF, 3CF	D860	1, 1.5, 2 Hr.
		Unprotected Deck	4-3/16" LW	1.5CF, 2CF, 3CF	D902
	1.5CF, 2CF, 3CF			D916	1, 1.5, 2, 3 Hr.
	1.5CF, 2CF, 3CF			D918	1, 1.5 Hr.
1.5CF, 2CF, 3CF	D919			1, 1.5 Hr.	
5 ¼" LW	1.5CF, 2CF, 3CF		D902	1, 1.5 Hr.	
	1.5CF, 2CF, 3CF		D916	1, 1.5, 2, 3 Hr.	
	1.5CF, 2CF, 3CF		D918	1, 1.5 Hr.	
		1.5CF, 2CF, 3CF	D919	1, 1.5 Hr.	
4 Hr.	Cementitious	2 ½" NW&LW	1.5CF, 2CF, 3CF	D739	1, 1.5, 2, 3, 4 Hr.
		3 ¼" LW	1.5CF, 2CF, 3CF	D754	1.5, 2 Hr.
	Sprayed Fiber	2 ½" NW&LW	1.5CF, 2CF, 3CF	D858	1, 1.5, 2, 4 Hr.
		3 ¼" LW	1.5CF, 2CF, 3CF	D860	1, 1.5, 2 Hr.

**NOTES:**

- Concrete thickness is thickness of slab above deck, in.
- Refer to the U.L. "Fire Resistance Directory" for the necessary construction details.

- Deck finish shall be galvanized

# ROOF DECK FIRE RESISTANCE RATINGS

Restrained Assembly Rating	Type of Protection	Classified Deck Type	U.L. Design No. (2, 3, 4)	Unrestrained Beam Rating
1 Hr.	<b>EXPOSED GRID SYSTEM</b>	F	P201	1
1		F, B	P211	1
3/4		F, B	P214	3/4
1		SF, SVF, HF, HVF, EF, EVF, B, BV	P216	1
1		F, B	P224	1
1		F, B	P225	-
1		F, B	P227	1
1		F, B	P230	-
1		SF, SVF, HF, HVF, EF, EVF, B, BV	P231	-
1		F, B	P232	1
1		F, B	P235	1
1		F, B	P238	1
1		F, B	P243	1
1		SF, SVF, HF, HVF, EF, EVF, B, BV	P246	-
1		SF, SVF, HF, HVF, EF, EVF, B, BV	P251	1
1	SF, SVF, HF, HVF, EF, EVF, B, BV	P255	1	
1	<b>GYPSUM BOARD</b>	EF, EVF, BV, B, F	P509	1
1		EF, EVF, BV, B, F	P510	1
1		EF, EVF, BV, B, F	P513	1
1	<b>CEMENTITIOUS</b>	F, B, N	P701	1
1		F, B, N	P709	1
1		F, B, N	P710	1
1		F, B, N	P711	1
1		F, B, N	P713	1
1		F, B, N	P714	1
1		F, B, N	P715	1
1		F, B, N	P717	1
1		F, B, N	P719	1
1		F, B, N	P725	1
1		F, B, N	P726	1
1		F, B, N	P731	1
1		F, B, N	P734	1
1		F, B, N	P735	1
1		F, B, N	P736	1
1	F, B, N	P738	1	
1	F, B, N	P740	1	
1	<b>SPRAYED FIBER</b>	F, B, N	P801	1
1		F, B, N	P811	1
1		F, B, N	P813	1
1		F, B, N	P815	1
1		F, B, N	P816	1
1		F, B, N	P817	1
1		F, B, N	P818	1
1		F, B, N	P819	1
1	<b>UNPROTECTED</b>	SF, HF, EF, B, F	P901	1
1		SF, HF, EF, B, F, N	P902	1
1		SF, HF, EF, B, F	P903	1
1		SF, HF, EF, B, F, N	P907	1
1		SF, HF, EF, B, F, N	P908	1
1		SF, SVF, HF, HVF, EF, EVF, B, BV, N, NV	P919	1
1		SF, SVF, HF, HVF, EF, EVF, B, BV, N, NV	P920	1
1		SF, SVF, HF, HVF, EF, EVF, B, BV, N, NV	P921	1
1		SF, SVF, HF, HVF, EF, EVF, B, BV, N, NV	P922	1
1		SF, SVF, HF, HVF, EF, EVF, B, BV, N, NV	P923	1
1		SF, SVF, HF, HVF, EF, EVF, B, BV	P924	1
1		SF, SVF, HF, HVF, EF, EVF, B, BV	P925	1

**NOTES:**

1. Refer to the U.L. "Fire Resistance Directory" for the necessary construction details.
2. Deck finish shall be galvanized

# ROOF DECK FIRE RESISTANCE RATINGS

Restrained Assembly Rating	Type of Protection	Classified Deck Type	U.L. Design No. (2, 3, 4)	Unrestrained Beam Rating
1 1/2	<b>EXPOSED GRID SYSTEM</b>	F, B	P225	1 1/2
1 1/2		F, B	P227	1 1/2
1 1/2		F, B	P230	1
1 1/2		SF, SVF, HF, HVF, EF, EVF, B, BV	P231	1 1/2
1 1/2		SF, HF, EF, F, B	P251	1 1/2
1 1/2	<b>METAL LATH</b>	F, B	P404	-
1 1/2	<b>CEMENTITIOUS</b>	F, B	P701	1 1/2
1 1/2		F, B	P709	1 1/2
1 1/2		F, B	P711	1 1/2
1 1/2		F, B	P713	1 1/2
1 1/2		F, B	P714	1 1/2
1 1/2		F, B	P715	1 1/2
1 1/2		F, B	P717	1 1/2
1 1/2		F, B	P719	1 1/2
1 1/2	<b>SPRAYED FIBER</b>	F, B	P801	1 1/2
1 1/2		F, B	P811	1 1/2
1 1/2		F, B	P813	1 1/2
1 1/2		F, B	P815	1 1/2
1 1/2	<b>UNPROTECTED</b>	SF, HF, EF, B	P902	1 1/2
1 1/2		SF, HF, EF, B	P907	1 1/2
1 1/2		SF, HF, EF, B	P908	1 1/2
1 1/2		SF, HF, EF, B	P919	1 1/2
1 1/2		SF, HF, EF, B	P920	1 1/2
1 1/2		SF, SVF, HF, HVF, EF, EVF, B, BV	P921	1 1/2
1 1/2		SF, SVF, HF, HVF, EF, EVF, B, BV	P922	1 1/2
1 1/2		SF, SVF, HF, HVF, EF, EVF, B, BV	P923	1 1/2
1 1/2		SF, SVF, HF, HVF, EF, EVF, B, BV	P924	1 1/2
1 1/2		SF, SVF, HF, HVF, EF, EVF, B, BV	P925	1 1/2
2	<b>EXPOSED GRID SYSTEM</b>	SF, HF, EF, B	P215	-
2		SF F, B	P219	-
2			P237	2
2		SF, HF, EF, B	P241	2
2		SF, HF, EF, B	P251	2
2	<b>METAL LATH</b>	F, B	P404	-
2		F, HF, EF, B	P407	-
2	<b>CEMENTITIOUS</b>	F, B	P701	2
2		F, B	P709	2
2		F, B	P711	2
2		F, B	P713	2
2		F, B	P714	2
2		F, B	P715	2
2		F, B	P717	2
2		F, B	P719	2

**NOTES:**

1. Refer to the U.L. "Fire Resistance Directory" for the necessary construction details.
2. Deck finish shall be galvanized

# ROOF DECK FIRE RESISTANCE RATINGS

<b>Restrained Assembly Rating</b>	<b>Type of Protection</b>	<b>Classified Deck Type</b>	<b>U.L. Design No. (2, 3, 4)</b>	<b>Unrestrained Beam Rating</b>
2	<b>SPRAYED FIBER</b>	F, B	P801	2
2		F, B	P811	2
2		F, B	P815	2
2	<b>UNPROTECTED</b>	SF, HF, EF, B	P902	2
2		SF, HF, EF, B	P907	2
2		SF, HF, EF, B	P908	2
2		SF, SVF, HF, HVF, EF, EVF, B, BV	P920	2
2		SF, SVF, HF, HVF, EF, EVF, B, BV	P921	2
2		SF, SVF, HF, HVF, EF, EVF, B, BV	P922	2
2		SF, SVF, HF, HVF, EF, EVF, B, BV	P923	2
2		SF, SVF, HF, HVF, EF, EVF, B, BV	P924	2
2		SF, SVF, HF, HVF, EF, EVF, B, BV	P925	2
3	<b>METAL LATH</b>	SF, HF, EF, B	P405	-
3	<b>CEMENTITIOUS</b>	F, B	P713	3
3		F, B	P719	3
3	<b>SPRAYED FIBER</b>	F, B	P811	3

**NOTES:**

1. Refer to the U.L. "Fire Resistance Directory" for the necessary construction details.
2. Deck finish shall be galvanized