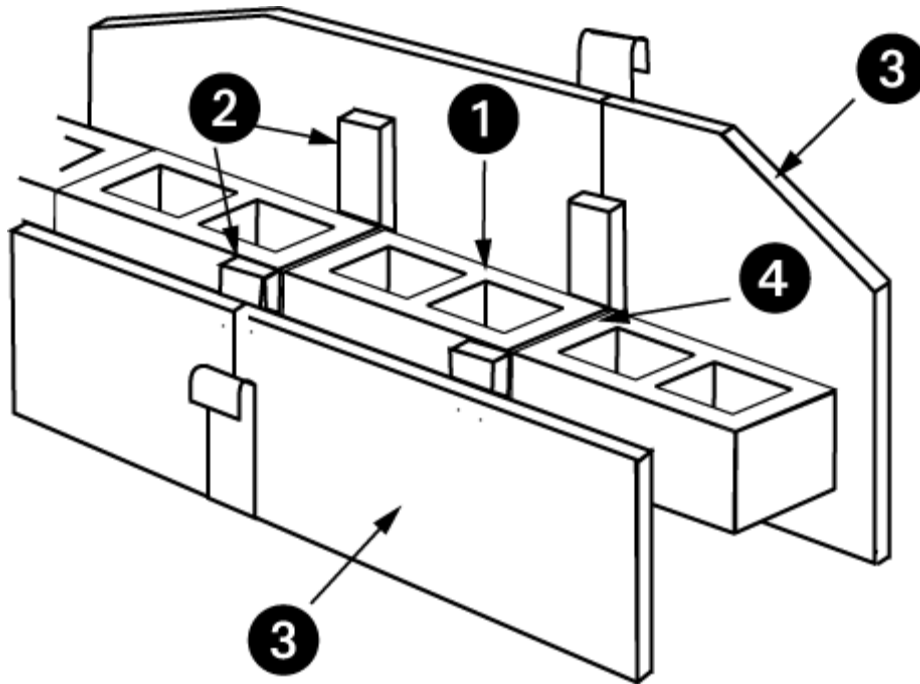


3-Hour Fire Rating

8" C.M.U.

Fire Rating: 3 Hour

No. 8-3-910635D2



Assembly Information

1. Preferred product 910635 c.m.u. 8" x 8" x 16" nominal
2. Wood or steel furring members - 16" o.c. maximum.
3. Gypsum wallboard - Type "X", 5/8" thick, both sides, long dimension parallel to furring members – all joints finished.
4. ASTM C-270 Masonry Mortar, Type M or S. Face shell or full mortar bedding as required.
5. Masonry grout, reinforcing steel, joint reinforcement, anchors, ties and accessories (Not depicted above - optional). Use where specified.

Preferred Materials Inc. accepts no responsibility for proper application of the rated wall assembly above, or responsibility for the construction of such assemblies.

Fire Rating: 3 Hour No. 8-3-910635D2

Concrete Masonry Unit

Section 3.1 of ACI 216.1

Unit Description	Size WxHxL Nominal	Equivalent Thickness Inches	Fire Rating Minutes
910635	8x8x16	3.6	95.5*

** Linear interpolation from Table 3.1 of ACI 216.1 for Exposed Finish Block Mix – 55% limestone & 45% siliceous aggregates.*

Sections 3.2.2 and 3.2.3

Solid Grouted construction and/or cells filled with loose-fill materials

Included	Equivalent Thickness Inches	Fire Rating Minutes
No	3.6	95.5*
Yes	N/A	N/A

** Linear interpolation from Table 3.1 of ACI 216.1 for Exposed Finish Block Mix – 55% limestone & 45% siliceous aggregates.*

Fire Rating: 3 Hour

No. 8-3-910635D2

Nonfire-exposed side

Side 1

Section 5.2.2 of ACI 216.1

Finish	
5/8 inch thick Gypsum Wallboard Type X	.625
Multiplying factor Table 5.1	3
Adjusted Thickness	1.875
Concrete Masonry Unit	
Unit Description	910635
Size WxHxL Nominal	8x8x16
Equivalent Thickness	3.6
Fire Rating Minutes	95.5
Total Thickness, CMU + Finish	5.47
Fire Resistance Rating of CMU & Finish, Table 721.3.2	202*

** Linear interpolation from Table 3.1 of ACI 216.1 for Exposed Finish Block Mix – 55% limestone & 45% siliceous aggregates.*

Max. allowable assembly Fire Resistance Block + finishes	143.2
Fire-Resistance Rating of Block and Finish	143.2

Side 2

Section 5.2.2 of ACI 216.1

Finish	
5/8 inch thick Gypsum Wallboard Type X	.625
Multiplying factor Table 5.1	3
Adjusted Thickness (inches)	1.875
Concrete Masonry Unit	
Unit Description	910635
Size WxHxL Nominal	8x8x16
Equivalent Thickness (inches)	3.6
Fire Rating Minutes	95.5
Total Thickness, CMU + Finish (inches)	5.47
Fire Resistance Rating of CMU & Finish, Table 5.1	202*

** Linear interpolation from Table 3.1 of ACI 216.1 for Exposed Finish Block Mix – 55% limestone & 45% siliceous aggregates.*

Max. allowable assembly Fire Resistance Block + finishes	143.2
Fire-Resistance Rating of Block and Finish	143.2

Fire Rating: 3 Hour No. 8-3-910635D2

Fire-exposed side

Side 1

Section 5.2.3 of ACI 216.1

Finish	
5/8 inch thick Gypsum Wallboard Type X	
Time assigned to finish materials Table 5.2	40
Fire Resistance of CMU and Nonfire-exposed side Finish Table 3.1	143.2
Assembly Fire-Resistance Rating	183.2
Max. allowable assembly Fire Resistance Block + finishes	191
Total Assembly Fire-Resistance Rating	183.2

Side 2

Section 5.2.3 of ACI 216.1

Finish	
5/8 inch thick Gypsum Wallboard Type X	
Time assigned to finish materials Table 5.2	40
Fire Resistance of CMU and Nonfire-exposed side Finish Table 3.1	143.2
Assembly Fire-Resistance Rating	183.2
Max. allowable assembly Fire Resistance Block + finishes	191
Total Assembly Fire-Resistance Rating	183.2

Assembly Fire-Resistance Rating	183.2 Minutes
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Fire Resistance Rating, minutes per inches of equivalent thickness
Linear Interpolation from Table 3.1 of ACI 216.1
Exposed Finish Mix - 55% limestone + 45% siliceous aggregates

et	min	et	min	et	min	et	min	et	min	et	min	et	min	et	min	et	min
2.75	60.0	3.16	76.6	3.57	94.0	3.98	114.5	4.39	137.1	4.80	160.5	5.21	184.7	5.62	212.0	6.03	239.4
2.76	60.4	3.17	77.0	3.58	94.5	3.99	115.0	4.40	137.7	4.81	161.1	5.22	185.3	5.63	212.7	6.04	240.0
2.77	60.8	3.18	77.4	3.59	95.0	4.00	115.5	4.41	138.3	4.82	161.7	5.23	186.0	5.64	213.3		
2.78	61.2	3.19	77.8	3.60	95.5	4.01	116.0	4.42	138.8	4.83	162.3	5.24	186.7	5.65	214.0		
2.79	61.6	3.20	78.2	3.61	96.0	4.02	116.5	4.43	139.4	4.84	162.8	5.25	187.3	5.66	214.7		
2.80	62.0	3.21	78.6	3.62	96.5	4.03	117.0	4.44	140.0	4.85	163.4	5.26	188.0	5.67	215.4		
2.81	62.4	3.22	79.0	3.63	97.0	4.04	117.5	4.45	140.6	4.86	164.0	5.27	188.7	5.68	216.0		
2.82	62.8	3.23	79.4	3.64	97.5	4.05	118.0	4.46	141.1	4.87	164.5	5.28	189.3	5.69	216.7		
2.83	63.2	3.24	79.8	3.65	98.0	4.06	118.5	4.47	141.7	4.88	165.1	5.29	190.0	5.70	217.4		
2.84	63.6	3.25	80.2	3.66	98.5	4.07	119.0	4.48	142.3	4.89	165.7	5.30	190.7	5.71	218.0		
2.85	64.0	3.26	80.7	3.67	99.0	4.08	119.5	4.49	142.8	4.90	166.3	5.31	191.3	5.72	218.7		
2.86	64.5	3.27	81.1	3.68	99.5	4.09	120.0	4.50	143.4	4.91	166.8	5.32	192.0	5.73	219.4		
2.87	64.9	3.28	81.5	3.69	100.0	4.10	120.6	4.51	144.0	4.92	167.4	5.33	192.7	5.74	220.0		
2.88	65.3	3.29	81.9	3.70	100.5	4.11	121.1	4.52	144.6	4.93	168.0	5.34	193.3	5.75	220.7		
2.89	65.7	3.30	82.3	3.71	101.0	4.12	121.7	4.53	145.1	4.94	168.5	5.35	194.0	5.76	221.4		
2.90	66.1	3.31	82.7	3.72	101.5	4.13	122.3	4.54	145.7	4.95	169.1	5.36	194.7	5.77	222.0		
2.91	66.5	3.32	83.1	3.73	102.0	4.14	122.9	4.55	146.3	4.96	169.7	5.37	195.3	5.78	222.7		
2.92	66.9	3.33	83.5	3.74	102.5	4.15	123.4	4.56	146.8	4.97	170.2	5.38	196.0	5.79	223.4		
2.93	67.3	3.34	83.9	3.75	103.0	4.16	124.0	4.57	147.4	4.98	170.8	5.39	196.7	5.80	224.0		
2.94	67.7	3.35	84.3	3.76	103.5	4.17	124.6	4.58	148.0	4.99	171.4	5.40	197.3	5.81	224.7		
2.95	68.1	3.36	84.7	3.77	104.0	4.18	125.1	4.59	148.5	5.00	172.0	5.41	198.0	5.82	225.4		
2.96	68.5	3.37	85.1	3.78	104.5	4.19	125.7	4.60	149.1	5.01	172.5	5.42	198.7	5.83	226.0		
2.97	68.9	3.38	85.5	3.79	105.0	4.20	126.3	4.61	149.7	5.02	173.1	5.43	199.3	5.84	226.7		
2.98	69.3	3.39	85.9	3.80	105.5	4.21	126.9	4.62	150.3	5.03	173.7	5.44	200.0	5.85	227.4		
2.99	69.7	3.40	86.3	3.81	106.0	4.22	127.4	4.63	150.8	5.04	174.2	5.45	200.7	5.86	228.0		
3.00	70.1	3.41	86.7	3.82	106.5	4.23	128.0	4.64	151.4	5.05	174.8	5.46	201.3	5.87	228.7		
3.01	70.5	3.42	87.1	3.83	107.0	4.24	128.6	4.65	152.0	5.06	175.4	5.47	202.0	5.88	229.4		
3.02	70.9	3.43	87.5	3.84	107.5	4.25	129.1	4.66	152.5	5.07	176.0	5.48	202.7	5.89	230.0		
3.03	71.3	3.44	87.9	3.85	108.0	4.26	129.7	4.67	153.1	5.08	176.5	5.49	203.3	5.90	230.7		
3.04	71.7	3.45	88.3	3.86	108.5	4.27	130.3	4.68	153.7	5.09	177.1	5.50	204.0	5.91	231.4		
3.05	72.1	3.46	88.8	3.87	109.0	4.28	130.8	4.69	154.3	5.10	177.7	5.51	204.7	5.92	232.0		
3.06	72.6	3.47	89.2	3.88	109.5	4.29	131.4	4.70	154.8	5.11	178.2	5.52	205.3	5.93	232.7		
3.07	73.0	3.48	89.6	3.89	110.0	4.30	132.0	4.71	155.4	5.12	178.8	5.53	206.0	5.94	233.4		
3.08	73.4	3.49	90.0	3.90	110.5	4.31	132.6	4.72	156.0	5.13	179.4	5.54	206.7	5.95	234.0		
3.09	73.8	3.50	90.5	3.91	111.0	4.32	133.1	4.73	156.5	5.14	180.0	5.55	207.3	5.96	234.7		
3.10	74.2	3.51	91.0	3.92	111.5	4.33	133.7	4.74	157.1	5.15	180.7	5.56	208.0	5.97	235.4		
3.11	74.6	3.52	91.5	3.93	112.0	4.34	134.3	4.75	157.7	5.16	181.3	5.57	208.7	5.98	236.0		
3.12	75.0	3.53	92.0	3.94	112.5	4.35	134.8	4.76	158.3	5.17	182.0	5.58	209.3	5.99	236.7		
3.13	75.4	3.54	92.5	3.95	113.0	4.36	135.4	4.77	158.8	5.18	182.7	5.59	210.0	6.00	237.4		
3.14	75.8	3.55	93.0	3.96	113.5	4.37	136.0	4.78	159.4	5.19	183.3	5.60	210.7	6.01	238.0		
3.15	76.2	3.56	93.5	3.97	114.0	4.38	136.6	4.79	160.0	5.20	184.0	5.61	211.3	6.02	238.7		