

ATLAS ENGINEERING DATA

WEIGHT OF WALL

	4" ATLAS	6" ATLAS	8" ATLAS
	PSF (Kg/M ²)	PSF (Kg/M ²)	PSF (Kg/M ²)
Hollow	25(122.0)	30(146.5)	35(170.9)
Grout @:			
48"o.c.(1.22m)	28(136.7)	38(185.5)	48(234.4)
40"o.c.(1.02m)	29(141.6)	39(190.4)	49(239.3)
32"o.c.(.813m)	30(146.5)	40(195.3)	51(249.0)
24"o.c.(.609m)	31(151.4)	42(205.1)	54(236.7)
16"o.c.(.406m)	33(161.1)	45(219.7)	59(288.1)
Solid	38(185.5)	56(273.4)	77(376.0)

STC RATING IN DECIBELS

	4" ATLAS	6" ATLAS	8" ATLAS
Hollow	41	45	50
Solid	45	51	52

EQUIVALENT THICKNESS AND FIRE RATING

	4" ATLAS			6" ATLAS			8" ATLAS		
	Thickness in.	Thickness mm	Rating Hours	Thickness in.	Thickness mm	Rating Hours	Thickness in.	Thickness mm	Rating Hours
Hollow	1.50	38.1	1*	2.50	63.5	1	2.50	63.5	1, 4*
Grout @:									
48"o.c.(1.22m)	1.69	42.9	1*	2.95	74.9	3*	3.24	82.3	1, 4*
40"o.c.(1.02m)	1.73	43.9	1*	3.03	76.9	1, 3*	3.39	86.1	1, 4*
32"o.c.(.813m)	1.78	45.2	1*	3.20	80.5	1, 3*	3.61	91.7	1, 4*
24"o.c.(.609m)	1.88	47.8	1*	3.39	86.1	1, 3*	3.98	101.1	1, 4*
16"o.c.(.406m)	2.06	52.3	1*	3.84	97.5	1, 3*	4.73	120.1	1, 2, 4*
Solid	3.50	88.9	1	5.50	139.7	3	7.50	190.5	4

*Fire ratings are for walls grouted with concrete at spacings shown. Values with asterisks require all empty cells to be grouted with concrete, perlite, vermiculite, or expanded shale aggregates to achieve fire ratings shown. Equivalent thickness may be used to determine bearing and shear areas.

THERMAL RESISTANCE

	4" ATLAS		6" ATLAS		8" ATLAS	
	"R"	"U"	"R"	"U"	"R"	"U"
Cell Fill**						
Hollow	1.84	0.54	2.13	0.47	2.23	0.45
Solid	1.46	0.68	1.69	0.59	2.00	0.50
Korfil Insert	n/a	n/a	4.60	0.22	4.76	0.21
Zonolite	2.70	0.37	4.57	0.22	5.95	0.17
Foam Beads	2.86	0.35	5.00	0.20	6.45	0.16
Core-Fill 500	3.70	0.27	5.90	0.17	6.50	0.16
Polyurethane	3.14	0.32	5.85	0.17	7.30	0.14

**Higher "R" values may be obtained by using bond beam units. Consider using the "Integral Pilaster" wall system for high-insulated walls with brick exposed both faces.

DESIGN PROPERTIES - UNCRACKED EFFECTIVE MOMENT OF INERTIA

	4" ATLAS		6" ATLAS		8" ATLAS	
	in4/ft	mm4/Mx10-4	in4/ft	mm4/Mx10-4	in4/ft	mm4/Mx10-4
Hollow	34.03	0.466	135.46	1.86	292.97	4.01
Grout @:						
48"o.c.(1.22m)	34.78	0.476	139.48	1.91	311.52	4.27
40"o.c.(1.02m)	34.93	0.479	140.27	1.92	315.24	4.32
32"o.c.(.813m)	35.16	0.480	141.48	1.94	320.08	4.40
24"o.c.(.609m)	35.53	0.490	143.48	1.97	330.08	4.52
16"o.c.(.406m)	36.28	0.500	147.50	2.02	348.64	4.78
Solid	42.91	0.590	166.40	2.28	421.80	5.78

RADIUS OF GYRATION

	4" ATLAS		6" ATLAS		8" ATLAS	
	in	mm	in	mm	in	mm
Hollow	1.38	34.93	2.13	53.98	3.13	79.50
Grout @:						
48"o.c.(1.22m)	1.31	33.27	1.98	50.29	2.83	71.88
40"o.c.(1.02m)	1.29	32.77	1.96	49.78	2.78	70.61
32"o.c.(.813m)	1.28	32.51	1.93	49.02	2.72	69.09
24"o.c.(.609m)	1.26	32.00	1.88	47.75	2.63	66.80
16"o.c.(.406m)	1.21	30.73	1.79	45.47	2.48	63.00
Solid	1.01	25.65	1.59	40.39	2.16	54.86

Brick Color	Strength of Unit ⁽¹⁾		1997 UBC Table 21-D Assumed f' _m Mortar Type S		2002 ACI 530 Table 1, Page S-10 Assumed f' _m Mortar Type S	
	Psi	(Mpa)	Psi	(Mpa)	Psi	(Mpa)
Arctic White	9,000	62.05	3,675	25.34	3,226	22.24
Baja Brown	13,200	91.01	5,000	34.47	4,000	27.58
Bronzestone	12,000	82.74	4,700	32.41	3,818	26.32
Canyon Rose	11,000	75.84	4,350	29.99	3,667	25.28
Canyon Stone	11,000	75.84	4,350	29.99	3,667	25.28
Copperstone	11,000	75.84	4,350	29.99	3,667	25.28
Desert Sand	11,000	75.84	4,350	29.99	3,667	25.28
Golden Buff	12,000	82.74	4,700	32.41	3,818	26.32
Ironstone	12,000	82.74	4,700	32.41	3,818	26.32
Manhattan	11,000	75.84	4,350	29.99	3,667	25.28
Midnight Black	13,200	91.01	5,000	34.47	4,000	27.58
Mission San Jose	11,000	75.84	4,350	29.99	3,667	25.28
Monterey	12,000	82.74	4,700	32.41	3,818	26.32
Moroccan Brown	12,000	82.74	4,700	32.41	3,818	26.32
Mountain Red	13,200	91.01	5,000	34.47	4,000	27.58
Park Rose	12,000	82.74	4,700	32.41	3,818	26.32
Platinum	9,000	62.05	3,675	25.34	3,226	22.24
Slatestone	11,000	75.84	4,350	29.99	3,667	25.28
Smokey Mountain	11,000	75.84	4,350	29.99	3,667	25.28
Sunset	11,000	75.84	4,350	29.99	3,667	25.28
Tumbleweed	11,000	75.84	4,350	29.99	3,667	25.28
Valley Tan	11,000	75.84	4,350	29.99	3,667	25.28

⁽¹⁾ Contact Interstate Brick for current test data