

Open Cell Insulating Units

SHAPES AND SIZES

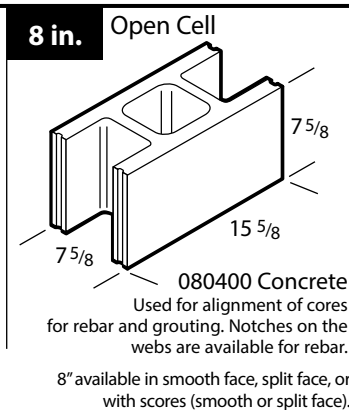
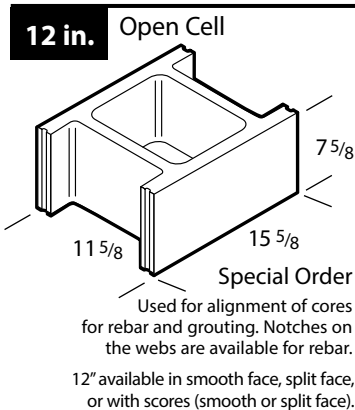
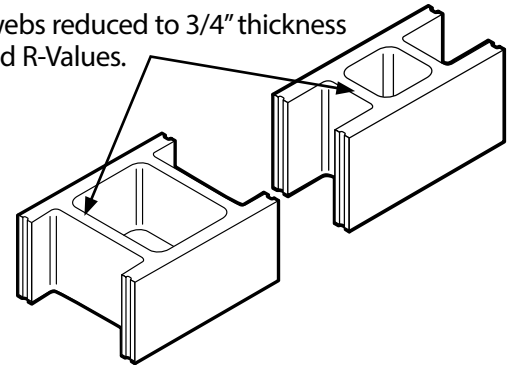
Block Type	Density - pdf	Weight lbs.	Percent Difference
8" Regular - (2) core	Normal Weight - 135 pcf	38	16%
8" Open Cell - (1) core	Normal Weight - 135 pcf	31.9	
12" Regular - (2) core	Normal Weight - 135 pcf	49	21%
12" Open Cell - (1) core	Normal Weight - 135 pcf	38.8	

OPEN CELL

Open Cell Single Core units installed with insulating core materials enhance R-values and result in better energy performance for CMU cavity wall construction. Open Cell units are manufactured with 3/4" webs that improve R-Values, increase occupant comfort levels, and lower energy and equipment costs over the life cycle of the building.

Open Cell units are NCMA & ASHRAE Approved Series Parallel (Isothermal Planes) R-Values

Now with webs reduced to 3/4" thickness for improved R-Values.



Benefits:

- Reduced web thickness to 3/4"
- Improved R-Value
- Units pass energy code requirements
- Lower weight (see chart above) increases efficiency for masons and reduces injury potential
- Meets ASTM C90 requirement

County Materials Corporation - Open Cell Unit with Reduced Webs Thermal R-Values, U-Values, and Heat Capacity (HC) Values

Size Nominal width	Density lbs/cu.ft.	Core Material Makeup											
		Empty			Grouted Solid			Plastic Foam			Perlite		
		R	U	HC	R	U	HC	R	U	HC	R	U	HC
One Core; (1) 1-1/2" & (1) 1-1-4" Face Shells; (2) 3/4" Webs (Equivalent Thickness = 3.1")													
12"	135	3.08	0.325	8.76	2.05	0.489	26.54	10.28	0.097	9.03	9.18	0.109	8.92
	115	3.35	0.298	7.53	2.22	0.451	25.31	14.26	0.070	7.80	12.15	0.082	7.69
	105	3.46	0.289	6.92	2.29	0.436	24.70	16.01	0.062	7.18	13.37	0.075	7.08
One Core; (2) 1-1/4" Face Shells; (2) 3/4" Webs (Equivalent Thickness = 2.4")													
8"	135	2.24	0.447	7.34	1.64	0.610	23.01	6.40	0.156	7.58	5.76	0.174	7.48
	115	2.44	0.410	6.32	1.79	0.559	21.99	8.74	0.114	6.56	7.52	0.133	6.46
	105	2.53	0.396	5.81	1.85	0.539	21.48	9.77	0.102	6.05	8.25	0.121	5.95
Medium Weight Two Core: (2) 1 1/3" Face Shells, (3) 1" Webs (Equivalent Thickness = 4.8")													
12"	125	2.3	0.436	na	2.25	0.444	na	8.07	0.124	na	7.5	0.133	na
	115	2.2	0.455	na	2.16	0.463	na	6.87	0.146	na	6.47	0.155	na
Medium Weight Two Core: (2) 1 1/4" Face Shells, (3) 1" Webs (Equivalent Thickness = 3.9")													
8"	125	2.2	0.455	na	1.81	0.553	na	5.49	0.182	na	5.09	0.196	na
	115	2.09	0.478	na	1.73	0.579	na	4.72	0.211	na	4.45	0.225	na

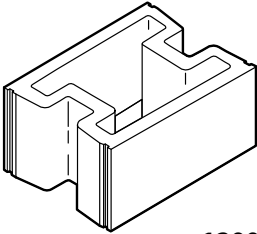
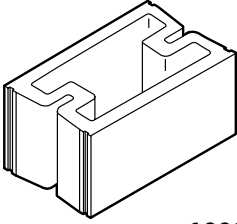
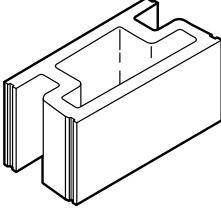
All dimensions nominal.

Thermal Block Insulating Units

SHAPES AND SIZES

THERMAL BLOCK

THERMAL BLOCK have **rigid insulating inserts installed** in them during the manufacturing process to reduce jobsite labor. Additional thermal protection between units may be installed in the field. Note: *These units are available in Splitface / Fullface Split / or Smoothface.*

12 in. Thermal  120030 Special Order Required	10 in. Thermal  100030 Special Order Required	8 in. Thermal  080030 Special Order Required	<u>FACTORY INSTALLED INSERT SIZE</u> $1\frac{7}{16}'' \times 7\frac{5}{8}'' \times 11\frac{15}{16}'' - 152010$ <u>FIELD INSTALLED INSERT SIZE</u> $1\frac{1}{2}'' \times 6'' \times 16'' - 8'' \text{ \& } 12'' - 152040$ $\frac{3}{4}'' \times 6'' \times 16'' - 10'' - \text{Special Order}$ <i>*Insert sizes vary by location</i>
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U-Values & Fire Ratings	BLOCK SIZE					
	12"		10"		8"	
	CONCRETE U-VALUE	LIGHT WEIGHT U-VALUE	CONCRETE U-VALUE	LIGHT WEIGHT U-VALUE	CONCRETE U-VALUE	LIGHT WEIGHT U-VALUE
Unfilled	0.301	0.215	.0318	0.235	0.4	0.305
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	2 Hours	2 Hours
One Factory Installed Insulation Insert	0.281	0.184	0.292	0.205	0.355	0.25
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	2 Hours	2 Hours
Two Factory Installed Insulation Inserts	0.261	0.16	0.267	0.182	-	-
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	-	-
One Factory & One 1 1/2" Field Installed	0.236	0.176	0.269	0.182	0.32	0.212
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	2 Hours	2 Hours
Two Factory & One 1 1/2" Field Installed	0.223	0.144	0.25	0.164	-	-
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	-	-
EPS Loose Fill Only – Field Installed	0.21	0.134	0.255	0.166	0.324	0.217
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	2 Hours	2 Hours
One Factory & EPS Loose Fill – Field Installed	0.209	0.132	0.254	0.165	0.322	0.213
Fire Rating	3 Hours	4 Hours	2 Hours	3 Hours	2 Hours	2 Hours

Note: The chart above shows "U"-Values for concrete and lightweight Thermal Block using the "Series-Parallel Method," effective 4/1/97 for compliance with ASHRAE – IES Standard 90.1. State of Wisconsin Block Approval #930043-R

All dimensions nominal.