



1/2 HIGH HI-R MASONRY UNITS* (UNGROUTED)

- UNITS - R_T Values (hr ft²F⁰/BTU) U-FACTOR (BTU/hr ft²F⁰)
 - HEAT CAPACITY (HC) (BTU/hr ft²F⁰)
 - EQUIVALENT THICKNESS (INCHES)

TYPE OF BLOCK (inches)	DENSITY OF CONCRETE BLOCK					
	Lbs/Cu ft					
	85	95	105	115	125	135
8 X 4 X 16 BLOCK						
R_T VALUE	11.72	10.74	9.81	8.92	8.10	7.33
U FACTOR	0.09	0.09	0.10	0.11	0.12	0.14
HEAT CAPACITY (HC)	5.14	5.73	6.22	6.82	7.41	7.90
EQUIVALENT THICKNESS	3.95	3.95	3.95	3.95	3.95	3.95
10 X 4 X 16 BLOCK						
R_T VALUE	13.41	12.38	11.38	10.42	9.50	8.64
U FACTOR	0.08	0.08	0.09	0.10	0.11	0.12
HEAT CAPACITY (HC)	5.97	6.57	7.26	7.86	8.56	9.25
EQUIVALENT THICKNESS	4.48	4.48	4.48	4.48	4.48	4.48
12 X 4 X 16 BLOCK						
R_T VALUE	14.04	12.99	11.97	10.98	10.03	9.14
U FACTOR	0.07	0.08	0.08	0.09	0.10	0.11
HEAT CAPACITY (HC)	6.69	7.40	8.11	8.92	9.63	10.34
EQUIVALENT THICKNESS	5.17	5.17	5.17	5.17	5.17	5.17

* REFERENCES - www.cbisinc.com, Technical Library Section PDF File No. 316 (Development of HI-R Block R-Values)

- National Concrete Masonry TEK No. 6-16A Heat Capacity (HC)
- National Concrete Masonry TEK No. 7-1C Fire Resistance Rating of Concrete Masonry Assemblies

Insulated concrete blocks specified for any project must certify that the R-Values they publish comply with the calculation procedures outlined in the National Concrete Masonry "Thermal Catalog of Concrete Masonry Assemblies" which is based on The American Society of Heating, Refrigerating and Air-Conditioning Engineers Standard 90.1. Further, Concrete Block Insulating Systems certifies the Thermal R-Values listed do comply with the above stated calculation procedure.

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1/2 HIGH HI-R MASONRY UNITS* (FULLY GROUTED)

- UNITS - R_T Values (hr ft²F⁰/BTU) U-FACTOR (BTU/hr ft²F⁰)
- HEAT CAPACITY (HC) (BTU/hr ft²F⁰)
 - EQUIVALENT THICKNESS (INCHES)
 - GROUT DENSITY AT 140 LB PER Cu Ft

TYPE OF BLOCK (inches)	DENSITY OF CONCRETE BLOCK					
	Lbs/Cu ft					
	85	95	105	115	125	135
8 X 4 X 16 BLOCK						
R_T VALUE	10.98	10.00	9.07	8.18	7.36	6.59
U FACTOR	0.09	0.10	0.11	0.12	0.14	0.15
HEAT CAPACITY (HC)	11.10	11.60	12.00	12.40	12.90	13.30
EQUIVALENT THICKNESS	5.60	5.60	5.60	5.60	5.60	5.60
10 X 4 X 16 BLOCK						
R_T VALUE	12.85	11.82	10.82	9.85	8.94	8.08
U FACTOR	0.08	0.08	0.09	0.10	0.11	0.12
HEAT CAPACITY (HC)	15.20	15.80	16.30	16.90	17.50	18.00
EQUIVALENT THICKNESS	7.60	7.60	7.60	7.60	7.60	7.60
12 X 4 X 16 BLOCK						
R_T VALUE	13.63	12.58	11.56	10.57	9.62	8.72
U FACTOR	0.07	0.08	0.09	0.09	0.10	0.11
HEAT CAPACITY (HC)	19.50	20.10	20.80	21.50	22.10	22.80
EQUIVALENT THICKNESS	9.60	9.60	9.60	9.60	9.60	9.60

- * REFERENCES - www.cbisinc.com, Technical Library Section PDF File No. 316 (Development of HI-R Block R-Values)
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