

TABLE 7-A. COEFFICIENTS OF TRANSMISSION (*U*) OF VARIOUS TYPES OF MASONRY WALL CONSTRUCTION

Note.—These coefficients are expressed in B.t.u. per hour per square foot per 1 deg. Fahr. difference in temperature between the air on the two sides and are based on an outside wind exposure of 15 miles per hour.

SOLID BRICK WALLS †

The values of *U* in this Table are based on the following Internal Conductivities (*C*) which are expressed in B.t.u. per Hr. per Sq.Ft. per 1° F

Brick	5.00	per 1'
Cement Mortar	8.00	per 1'
Plaster Board	3.04	per 1'
Plaster (Gypsum)	2.32	per 1'
Wood Lath & Plaster	2.00	as applied
Corkboard	0.30	per 1'
Fiber Insulation (Board/form)	0.33	per 1'
Cellular Gypsum (18")	0.59	per 1'
Flaked Gypsum, Dry (24")	0.52	per 1'
Hollow Tile 2" - 1.14	4" - 0.65	

Y = Thickness of Insulation where specified

The diagram illustrates a cross-section of a solid brick wall. It shows three courses of bricks. The top course is a header course, and the two courses below are stretcher courses. A horizontal line labeled 'X' indicates the thickness of a single brick. A vertical line labeled 'Y' indicates the height of a single course of bricks.

Wall Number	Interior Construction	Y	Thickness of Brick - X			
			9"	13"	18"	24"
			a	b	c	d
1	Plain Walls - No Interior Finish		0.358	0.278	0.218	0.173
2	½" Plaster on Brick		0.332	0.263	0.208	0.166
3	¾" Plaster on Metal Lath - Furred		0.216	0.185	0.156	0.131
4	½" Plaster on Wood Lath - Furred		0.209	0.179	0.152	0.128
5	½" Plaster on ¾" Plaster Board - Furred		0.215	0.184	0.155	0.131
6	½" Plaster on Wood Lath on 2" Furring Strips - Cellular Gypsum Fill	1½"	0.165	0.146	0.128	0.111
7	½" Plaster on Wood Lath on 2" Furring Strips - Flaked Gypsum Fill	1½"	0.156	0.139	0.122	0.106
8	½" Plaster on Fibre Insulation - (Board/form) Furred	½"	0.166	0.147	0.128	0.111
9		1"	0.133	0.120	0.107	0.095
10	½" Plaster on Corkboard set in ½" Cement Mortar	1½"	0.124	0.113	0.102	0.090
11		2"	0.103	0.095	0.087	0.079
11-A	½" Plaster on 2" Hollow Tile (½" Cement Mortar between Tile and Brick)		0.252	0.210	0.174	0.144
11-B	½" Plaster on 4" Hollow Tile (½" Cement Mortar between Tile and Brick)		0.217	0.185	0.156	0.131

*Based on 1½ in., the actual thickness of 2 in. furring strips.

†The coefficients on this page can also be used with sufficient accuracy for the Ideal Rolok-Bak Wall.

Note.—The coefficient used for plasterboard is 3.04 per inch thickness—recent data indicate values as low as 1.30 for this material.

Note.—The coefficient used for cellular gypsum, 0.59 is for 18 lb. weight—weights as low as 12 lb. may be used.

TABLE 7-B. COEFFICIENTS OF TRANSMISSION (*U*) OF VARIOUS TYPES OF MASONRY WALL CONSTRUCTION

Note.—These coefficients are expressed in B.t.u. per hour per square foot per 1 deg. Fahr. difference in temperature between the air on the two sides and are based on an outside wind exposure of 15 miles per hour.

BRICK VENEER ON HOLLOW TILE WALLS

The values of *U* in this Table are based on the following Internal Conductivities (*C*) which are expressed in B.t.u. per Hr. per Sq. Ft. per 1° F

Hollow Tile	4'-0.65	6'-0.50	8'-0.43	12'-0.26
Brick			5.00	per 1'
Cement Mortar			8.00	per 1'
Plaster Board			3.04	per 1'
Plaster (Gypsum)			2.32	per 1'
Wood Lath & Plaster			2.00	as applied
Cork board			0.30	per 1'
Fiber Insulation (Board/form)			0.33	per 1'
Cellular Gypsum (18")			0.59	per 1'
Flaked Gypsum, Dry (24")			0.52	per 1'

Y = Thickness of Insulation where specified

Wall Number	Interior Construction	<i>Y</i>	Thickness of Hollow Tile - <i>X</i>			
			4"	6"	8"	12"
			<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>
12	Plain Walls - No Interior Finish		0.294	0.260	0.240	0.175
13	½" Plaster on Hollow Tile		0.277	0.246	0.228	0.169
14	¾" Plaster on Metal Lath - Furred		0.192	0.176	0.167	0.133
15	½" Plaster on Wood Lath - Furred		0.186	0.171	0.162	0.130
16	½" Plaster on ¾" Plaster Board - Furred		0.191	0.176	0.166	0.133
17	½" Plaster on Wood Lath on 2" Furring Strips - Cellular Gypsum Fill	1½"	0.151	0.141	0.135	0.112
18	½" Plaster on Wood Lath on 2" Furring Strips - Flaked Gypsum Fill	1½"	0.142	0.134	0.128	0.107
19	½" Plaster on Fiber Insulation - (Board/form) Furred	½"	0.151	0.141	0.135	0.112
20		1"	0.123	0.117	0.112	0.096
21	½" Plaster on Corkboard Set in ½"	1½"	0.115	0.109	0.105	0.091
22	Cement Mortar	2"	0.097	0.092	0.090	0.079

*Based on 1½ in., the actual thickness of 2 in. furring strips.

Note.—The coefficient used for plasterboard is 3.04 per inch thickness—recent data indicate values as low as 1.30 for this material.

Note.—The coefficient used for cellular gypsum, 0.59 is for 18 lb. weight—weights as low as 12 lb. may be used.