

TABLE 23. COEFFICIENTS OF TRANSMISSION (*U*) OF BRICK VENEER ON CINDER AND CONCRETE BLOCK WALLS^c

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.

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

Cinder Blocks	8"=0.45	12"=0.28
Concrete Blocks	8"=0.84	12"=0.52
Brick		5.00 per 1"
Cement Mortar		8.00 per 1"
Plaster board		3.73 per $\frac{3}{8}$ "
Plaster (Gypsum)		2.32 per 1"
Wood Lath & Plaster		2.00 as applied
Cork board		0.30 per 1"
Rigid Insulation (Board form)		0.33 per 1"
Cellular Gypsum (18")		0.59 per 1"
Flaked Gypsum, Dry (24")		0.48 per 1"

Y=Thickness of Insulation where specified

The diagram illustrates a cross-section of a concrete block wall. It shows two courses of blocks. The top course is labeled with a dimension 'X' across its width and '4"' across its height. Below the blocks, a layer of '1/2" Cement Mortar' is indicated. The wall is shown with multiple blocks in a staggered pattern.

Number	Interior Construction	Y	Thickness—X and Kind of Blocks			
			8" Cinder	8" Concrete	12" Cinder	12" Concrete
			A	B	C	D
1	Plain Walls—No Interior Finish		0.245	0.328	0.184	0.264
2	$\frac{1}{2}$ " Plaster on Blocks		0.233	0.306	0.177	0.250
3	$\frac{3}{4}$ " Plaster on Metal Lath—Furred		0.188	0.234	0.150	0.199
4	$\frac{1}{2}$ " Plaster on Wood Lath—Furred		0.182	0.224	0.146	0.192
5	$\frac{1}{2}$ " Plaster on $\frac{3}{8}$ " Plaster board—Furred		0.183	0.225	0.147	0.193
6	$\frac{1}{2}$ " Plaster on Wood Lath on 2" Furring Strips—Cellular Gypsum Fill ^b	$\frac{1}{8}$ " ^a	0.136	0.158	0.115	0.142
7	$\frac{1}{2}$ " Plaster on Wood Lath on 2" Furring Strips—Flaked Gypsum Fill	$\frac{1}{8}$ " ^a	0.125	0.144	0.107	0.130
8	$\frac{1}{2}$ " Plaster on Rigid Insulation—(Board form) Furred	$\frac{1}{2}$ "	0.149	0.176	0.124	0.156
9		1"	0.121	0.139	0.104	0.126
10	$\frac{1}{2}$ " Plaster on Cork board set in $\frac{1}{2}$ " Cement Mortar	$\frac{1}{2}$ "	0.107	0.120	0.093	0.110
11		2"	0.090	0.100	0.081	0.093

^aBased on $1\frac{1}{2}$ in., the actual thickness of 2 in. furring strips.

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

^cThe form of the 8 in. blocks on which the figures in this table are based is shown in the above sketch. The 12 in. blocks are based on two air cells through the block instead of one.

TABLE 24. COEFFICIENTS OF TRANSMISSION (*U*) OF WOOD SIDING OR CLAPBOARD FRAME WALLS

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.

The values of U in this Table are based on the following Internal Conductivities or Conductances which are expressed in B.t.u. per Hr. per Sq. Ft. per 1° F.			Typical Construction 2"x4" Studs						
Wood (Yellow Pine or Fir)			1.00 per 1"						
Plaster (Gypsum)			2.32 per 1"						
Plaster board			2.80 per 1"						
Cork board			0.30 per 1"						
Wood Lath & Plaster			2.00 as applied						
Rigid Insulation (Board form)			0.33 per 1"						
Flexible Insulation			0.27 per 1"						
Cellular Gypsum (18")			0.59 per 1"						
Flaked Gypsum (24")			0.48 per 1"						
Number	Type of Sheathing	Insulation between Studding	Plaster Base						
			Wood Lath	Metal Lath	$\frac{3}{8}$ " Plaster-board	$\frac{1}{2}$ " Rigid Insulation	1" Rigid Insulation	1½" Cork-board	2" Cork-board
			A	B	C	D	E	F	G
1	1" Wood ^b	None	0.262	0.275	0.263	0.198	0.153	0.117	0.098
2		Flaked Gypsum Fill (24") ^a	0.096	0.098	0.096	0.086	0.076	0.067	0.060
3		Cellular Gypsum Fill (18") ^{a-c}	0.111	0.113	0.111	0.097	0.085	0.073	0.065
4		$\frac{1}{2}$ " Flexible Insulation	0.152	0.157	0.153	0.128	0.107	0.089	0.077
5	$\frac{1}{2}$ " Rigid Insulation (Board form)	None	0.220	0.229	0.221	0.173	0.137	0.108	0.092
6		Flaked Gypsum Fill (24") ^a	0.090	0.091	0.090	0.081	0.072	0.063	0.058
7		Cellular Gypsum Fill (18") ^{a-c}	0.102	0.104	0.103	0.090	0.080	0.069	0.062
8		$\frac{1}{2}$ " Flexible Insulation	0.137	0.140	0.137	0.117	0.099	0.083	0.073
9	$\frac{1}{2}$ " Plaster-board	None	0.295	0.312	0.297	0.216	0.163	0.123	0.102
10		Flaked Gypsum Fill (24") ^a	0.099	0.102	0.100	0.089	0.079	0.068	0.062
11		Cellular Gypsum Fill (18") ^{a-c}	0.116	0.118	0.116	0.102	0.088	0.075	0.067
12		$\frac{1}{2}$ " Flexible Insulation	0.163	0.167	0.163	0.135	0.112	0.092	0.080

^aThickness of fill assumed $3\frac{3}{4}$ in., based on 2 in. by 4 in. studding.

^bBased on $\frac{3}{4}$ in., the actual thickness of 1 in. or $\frac{3}{4}$ in. sheathing. Building paper neglected.

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