

TABLE 21. COEFFICIENTS OF TRANSMISSION (*U*) OF CONCRETE WALLS WITH NO EXTERIOR FINISH

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

Concrete (Stone 1:2:4 mix)	8.30 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"

A 3D perspective diagram of a rectangular block representing a wall or floor section. The top horizontal edge is labeled 'X' with arrows indicating its length. The front vertical edge is labeled 'Y' with arrows indicating its height. The block is filled with small circles and dots, representing aggregate in concrete or insulation material.

Y = Thickness of Insulation where specified

Number	Interior Construction	Y	Thickness of Concrete - X					
			6"	8"	10"	12"	16"	20"
			A	B	C	D	E	F
1	Plain Walls - No Interior Finish		0.583	0.512	0.455	0.411	0.343	0.294
2	$\frac{1}{2}$ " Plaster on Concrete		0.518	0.461	0.416	0.378	0.320	0.277
3	$\frac{3}{4}$ " Plaster on Metal Lath - Furred		0.339	0.314	0.292	0.273	0.241	0.216
4	$\frac{1}{2}$ " Plaster on Wood Lath - Furred		0.320	0.297	0.277	0.260	0.231	0.208
5	$\frac{1}{2}$ " Plaster on $\frac{3}{8}$ " Plaster board - Furred		0.322	0.299	0.279	0.261	0.232	0.209
6	$\frac{1}{2}$ " Plaster on Wood Lath on 2" Furring Strips - Cellular Gypsum Fill ^b	$1\frac{5}{8}$ "	0.202	0.192	0.183	0.176	0.162	0.151
7	$\frac{1}{2}$ " Plaster on Wood Lath on 2" Furring Strips - Flaked Gypsum Fill	$1\frac{5}{8}$ "	0.177	0.170	0.163	0.157	0.146	0.137
8	$\frac{1}{2}$ " Plaster on Rigid Insulation (Board form) Furred	$1\frac{1}{2}$ "	0.229	0.217	0.207	0.197	0.180	0.166
9		1"	0.170	0.164	0.157	0.152	0.141	0.132
10	$\frac{1}{2}$ " Plaster on Cork board set in $\frac{1}{2}$ " Cement Mortar	$1\frac{1}{2}$ "	0.142	0.138	0.134	0.131	0.122	0.116
11		2"	0.116	0.113	0.109	0.106	0.101	0.097

^aBased on 1 5/8 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.

TABLE 22. COEFFICIENTS OF TRANSMISSION (*U*) OF CINDER AND CONCRETE BLOCK WALLS^{b-d}

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.

EXPOSURE

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
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

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		0.311	0.458	0.219	0.343
2	$\frac{1}{2}$ " Plaster on Blocks		0.291	0.416	0.209	0.319
3	$\frac{3}{4}$ " Plaster on Metal Lath — Furred		0.225	0.293	0.173	0.241
4	$\frac{1}{2}$ " Plaster on Wood Lath — Furred		0.216	0.278	0.167	0.231
5	$\frac{1}{2}$ " Plaster on $\frac{3}{8}$ " Plaster board — Furred		0.217	0.280	0.168	0.232
6	$\frac{1}{2}$ " Plaster on Wood Lath on 2" Furring Strips — Cellular Gypsum Fill ^c	$1\frac{5}{8}$ "	0.155	0.184	0.128	0.162
7	$\frac{1}{2}$ " Plaster on Wood Lath on 2" Furring Strips — Flaked Gypsum Fill	$1\frac{5}{8}$ "	0.140	0.163	0.118	0.146
8	$\frac{1}{2}$ " Plaster on Rigid Insulation — (Board form) Furred	$1\frac{1}{2}$ "	0.171	0.207	0.139	0.180
9		1"	0.136	0.158	0.114	0.141
10	$\frac{1}{2}$ " Plaster on Cork board set in $\frac{1}{2}$ " Cement Mortar	$1\frac{1}{2}$ "	0.118	0.134	0.102	0.122
11		2"	0.098	0.109	0.087	0.101

^aBased on 1 5/8 in., the actual thickness of 2 in. furring strips.

^bThe figures on this page may be used with sufficient accuracy for cinder and concrete block walls with stucco exterior finish.

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

^dThe 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.