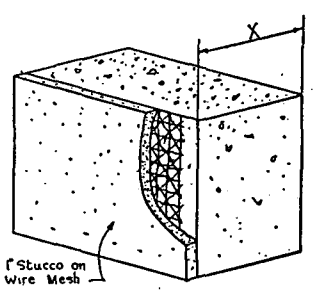
Table 7-I. Coefficients of Transmission (*U*) of Various Types of Masonry Wall Construction

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.

Concrete Walls with Stucco as Exterior Finish

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

Stucco	8.00	per 1"
Concrete (Stone 1:2:4 mix)	8.30	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 (26#)	0.52	per 1"



Y = Thickness of Insulation where specified

Wall Number	Interior Construction	Y	Thickness of Concrete - X					
			6"	8"	10"	12"	16"	20"
			a	b	c	d	e	f
89	Plain Walls - No Interior Finish		0.544	0.481	0.431	0.391	0.329	0.284
90	½ Plaster on Concrete		0.486	0.437	0.395	0.361	0.308	0.268
91	¾ Plaster on Metal Lath - Furred		0.273	0.257	0.242	0.229	0.206	0.187
92	½ Plaster on Wood Lath - Furred		0.261	0.246	0.232	0.220	0.199	0.181
93	½ Plaster on ⅜ Plaster Board - Furred		0.272	0.256	0.241	0.228	0.205	0.187
94	½ Plaster on Wood Lath on 2" Furring Strips - Cellular Gypsum Fill	1⅝"*	0.196	0.188	0.179	0.172	0.159	0.148
95	½ Plaster on Wood Lath on 2" Furring Strips - Flaked Gypsum Fill	1⅝"*	0.183	0.175	0.168	0.162	0.150	0.140
96	½ Plaster on Fiber Insulation - (Board form) Furred	½"	0.197	0.189	0.180	0.173	0.160	0.148
97		1"	0.152	0.147	0.142	0.137	0.128	0.121
98	½ Plaster on Corkboard set in ½" Cement Mortar	1½"	0.141	0.136	0.132	0.127	0.120	0.114
99		2"	0.114	0.111	0.108	0.105	0.100	0.096

*Based on 1⅝ 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.

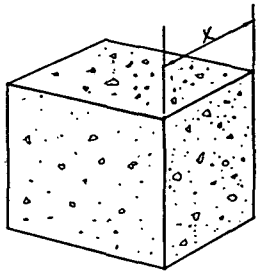
Table 7-J. Coefficients of Transmission (*U*) of Various Types of Masonry Wall Construction

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.

Concrete Walls with No Exterior Finish

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

Concrete (Stone 1:2:4 mix)	8.30	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 (26#)	0.52	per 1"



Y = Thickness of Insulation where specified

Wall Number	Interior Construction	Y	Thickness of Concrete - X					
			6"	8"	10"	12"	16"	20"
			a	b	c	d	e	f
89-A	Plain Walls - No Interior Finish		0.583	0.512	0.455	0.411	0.343	0.294
90-A	½" Plaster on Concrete		0.518	0.461	0.416	0.378	0.320	0.277
91-A	¾" Plaster on Metal Lath - Furred		0.283	0.265	0.250	0.236	0.211	0.192
92-A	½" Plaster on Wood Lath - Furred		0.270	0.254	0.239	0.226	0.204	0.185
93-A	½" Plaster on ⅜" Plaster Board - Furred		0.282	0.265	0.248	0.235	0.211	0.191
94-A	½" Plaster on Wood Lath on 2" Furring Strips - Cellular Gypsum Fill	1⅝"*	0.202	0.192	0.183	0.176	0.162	0.151
95-A	½" Plaster on Wood Lath on 2" Furring Strips - Flaked Gypsum Fill	1⅝"*	0.187	0.179	0.172	0.165	0.153	0.143
96-A	½" Plaster on Fiber Insulation - (Board form) Furred	½"	0.203	0.194	0.184	0.177	0.163	0.151
97-A		1"	0.155	0.150	0.145	0.139	0.130	0.123
98-A	½" Plaster on Corkboard set in ½" Cement Mortar	1½"	0.142	0.138	0.134	0.131	0.122	0.116
99-A		2"	0.116	0.113	0.109	0.106	0.101	0.097

*Based on 1⅝ 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.