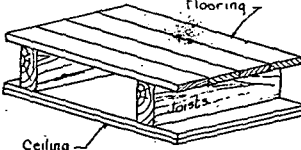


TABLE 10-A. COEFFICIENTS OF TRANSMISSION (*U*) OF VARIOUS TYPES OF FLOORS AND CEILINGS

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 still air (no wind) conditions on both sides.

FRAME CONSTRUCTION						
The values of <i>U</i> in this Table are based on the following Internal Conductivities (<i>C</i>) which are expressed in B.t.u. per Hr. per Sq. Ft. per 1° F			Typical Construction			
Wood (Yellow Pine or fir) 1.00 per 1" Plaster (Gypsum) 2.52 per 1" Wood Lath & Plaster 2.00 as applied Plaster Board 3.04 per 1" Cork board 0.30 per 1" Fiber Insulation (Board form) 0.33 per 1" Felt or Quilt Insulation (Sq ft) 0.27 per 1" Cellular Gypsum (18") 0.59 per 1" Flaked Gypsum, Dry (26") 0.52 per 1" Wood (Maple) 1.20 per 1"						
Floor & Ceiling Number	Type of Ceiling	Insulation between Joists	Type of Flooring			
			No Flooring	1" Yellow Pine Flooring on Joists	1" Yellow Pine Flooring on 1/2" Fiber Insulation (Board form) on Joists	3/4" Maple or Oak Flooring on 1" Yellow Pine Sub Flooring on Joists
			a	b	c	d
165	No Ceiling	None		0.440	0.264	0.339
166	Metal Lath & Plaster (3/4")	None	0.551	0.245	0.179	0.210
167	Wood Lath & Plaster (1/2")	None	0.502	0.234	0.175	0.202
168	3/8" Plaster Board & Plaster (1/2")	None	0.546	0.244	0.178	0.209
169	1/2" Fiber Insulation (Board form) & Plaster (1/2")	None	0.310	0.181	0.143	0.162
170	Wood Lath & Plaster (1/2")	1/2" Felt or Quilt Insulation (Sq ft)	0.187	0.131	0.110	0.121
171	Wood Lath & Plaster (1/2")	1/2" Fiber Insulation (Board form)	0.200	0.137	0.114	0.126
172	Wood Lath & Plaster (1/2")	Cellular Gypsum Fill	0.123	0.112	0.096	0.103
173	Wood Lath & Plaster (1/2")	Flaked Gypsum Fill	0.112	0.103	0.089	0.096
174	1 1/2" Cork board & Plaster (1/2")	None	0.149	0.111	0.095	0.103
175	2" Cork board & Plaster (1/2")	None	0.119	0.094	0.082	0.088

*The value of *U* is the same if insulation is applied to underside of joists and lath and plaster ceiling, separated by furring strips.

†Based on actual thickness of approximately 3/8 in. for 1 in. yellow pine flooring.

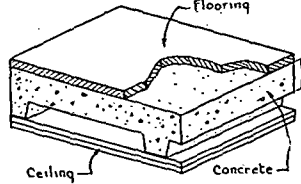
‡Thickness of fill assumed 3 3/4 in., based on 2 in. by 4 in. joists.

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 10-B. COEFFICIENTS OF TRANSMISSION (*U*) OF VARIOUS TYPES OF FLOORS AND CEILINGS

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 still air (no wind) conditions on both sides.

CONCRETE CONSTRUCTION						
The values of <i>U</i> in this Table are based on the following Internal Conductivities (<i>C</i>) which are expressed in B.t.u. per Hr. per Sq. Ft. per 1° F			Typical Construction			
Tile or Terraazzo 10.00 per 1" Concrete (Stone 1:2:4 mix) 8.30 per 1" Cement Mortar 8.00 per 1" Wood (Yellow Pine or fir) 1.00 per 1" Plaster Board 3.04 per 1" Plaster (Gypsum) 2.52 per 1" Cork board 0.30 per 1" Fiber Insulation (Board form) 0.33 per 1" Wood (Maple) 1.20 per 1"						
Floor Number	Type of Ceiling	Thickness of X	Type of Flooring			
			No Flooring (Concrete bare)	1" Yellow Pine Flooring on Wood Sleepers embedded in Concrete	3/4" Maple or Oak Flooring on 1" Yellow Pine Sub Flooring on Wood Sleepers embedded in Concrete	1" Terraazzo or Tile Flooring on Concrete
			a	b	c	d
176	No Ceiling	4"	0.508	0.364	0.292	0.483
177		6"	0.452	0.334	0.273	0.433
178		8"	0.408	0.310	0.256	0.392
179		10"	0.372	0.288	0.241	0.358
180	1/2" Plaster applied directly to underside of Concrete	4"	0.457	0.337	0.275	0.437
181		6"	0.411	0.311	0.258	0.395
182		8"	0.374	0.290	0.243	0.361
183		10"	0.344	0.271	0.230	0.332
184	Suspended or furred Metal Lath & Plaster Ceiling	4"	0.264	0.219	0.191	0.258
185		6"	0.248	0.208	0.183	0.242
186		8"	0.234	0.198	0.175	0.229
187		10"	0.222	0.189	0.168	0.217
188	Suspended or furred Ceiling of 3/8" Plaster Board & Plaster	4"	0.263	0.218	0.190	0.256
189		6"	0.247	0.207	0.182	0.241
190		8"	0.234	0.198	0.174	0.228
191		10"	0.221	0.189	0.167	0.216
192	Suspended or furred Ceiling of 1/2" Fiber Insulation (Board form) & 1/2" Plaster	4"	0.193	0.167	0.151	0.189
193		6"	0.184	0.161	0.145	0.181
194		8"	0.176	0.155	0.140	0.173
195		10"	0.169	0.149	0.136	0.166
196	1/2" Plaster on 1 1/2" Cork board set in 1/2" Cement Mortar on Concrete	4"	0.138	0.124	0.115	0.136
197		6"	0.133	0.121	0.112	0.132
198		8"	0.129	0.117	0.109	0.128
199		10"	0.125	0.114	0.106	0.124
200	1/2" Plaster on 2" Cork board set in 1/2" Cement Mortar on Concrete	4"	0.112	0.103	0.097	0.111
201		6"	0.109	0.101	0.094	0.108
202		8"	0.106	0.098	0.092	0.105
203		10"	0.104	0.096	0.090	0.103

*The figures in column "a" are sufficiently accurate for concrete floors covered with carpet or linoleum.

†The figures in column "b" are sufficiently accurate for 3/4 in. maple or oak flooring applied directly over the concrete on wood sleepers.

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