Table 14. Coefficients of Transmission (U) of Concrete Construction Floors and Ceilings[a]

Coefficients are expressed in Btu per hour per square foot per degree Fahrenheit difference in temperature between the air on the two sides, and are based on still air (no wind) conditions on both sides.

No.	Thickness of Concrete (Inches)	Type of Ceiling	Type of Flooring			
			Column A. No flooring (concrete bare)[b]. Column B. Yellow pine flooring[c] on wood sleepers embedded in concrete[d]. Column C. Maple or oak flooring[e] on yellow pine sub-flooring[c] on wood sleepers embedded in concrete. Column D. Tile or terrazzo[f] flooring on concrete.			
			A	B	C	D
1	4	No Ceiling	0.65	0.40	0.31	0.61
2	6		0.59	0.37	0.30	0.56
3	8		0.53	0.35	0.28	0.51
4	10		0.49	0.33	0.27	0.47
5	4	½ in. Plaster Applied Directly to Under Side of Concrete	0.59	0.38	0.30	0.56
6	6		0.54	0.35	0.28	0.52
7	8		0.50	0.33	0.27	0.47
8	10		0.45	0.32	0.26	0.44
9	4	Suspended or Furred Metal Lath and Plaster (¾ in.) Ceiling	0.37	0.28	0.23	0.36
10	6		0.35	0.26	0.22	0.34
11	8		0.33	0.25	0.21	0.32
12	10		0.32	0.24	0.21	0.31
13	4	Suspended or Furred Ceiling of Plaster Board (⅜ in.) and Plaster (½ in.)	0.35	0.26	0.22	0.34
14	6		0.33	0.25	0.21	0.32
15	8		0.31	0.24	0.21	0.30
16	10		0.30	0.23	0.20	0.29
17	4	Suspended or Furred Ceiling of Rigid Insulation (½ in.) and Plaster (½ in.)	0.24	0.20	0.17	0.24
18	6		0.23	0.19	0.17	0.23
19	8		0.22	0.18	0.16	0.22
20	10		0.22	0.18	0.16	0.21
21	4	Plaster (½ in.) on Corkboard (1½ in.) Set in Cement Mortar (¼ in.) on Concrete	0.15	0.13	0.12	0.14
22	6		0.14	0.13	0.12	0.14
23	8		0.14	0.12	0.11	0.14
24	10		0.14	0.12	0.11	0.14

[a] Computed from factors given in Table 7.
[b] The figures in Column A may be used with sufficient accuracy for concrete floors covered with carpet or linoleum.
[c] Thickness of yellow pine flooring assumed to be 25/32 in.
[d] The figures in Column B may be used with sufficient accuracy for maple or oak flooring[e] applied directly over the concrete on wood sleepers.
[e] Thickness of maple or oak flooring assumed to be ¾ in.
[f] Thickness of tile or terrazzo assumed 1 in.

Table 15. Coefficients of Transmission (U) of Concrete Floors on Ground with Various Types of Finish Flooring[a] [e]

Coefficients are expressed in Btu per hour per square foot per degree Fahrenheit difference in temperature between the ground and the air over the floor, and are based on still air (no wind) conditions.

No.	Thickness of Concrete (Inches)	Type and Thickness of Insulation	Type of Finish Flooring			
			Column A. No flooring (concrete bare). Column B. Yellow pine flooring[b] on wood sleepers embedded in concrete. Column C. Maple or oak flooring[c] on yellow pine sub-flooring on wood sleepers embedded in concrete. Column D. Tile or terrazzo[d] on concrete.			
			A	B	C	D
1	4	None	1.07	0.52	0.38	0.98
2	6		0.90	0.48	0.36	0.84
3	8		0.79	0.45	0.34	0.74
4	10		0.70	0.41	0.32	0.66
5	4	None[e]	0.66	0.40	0.31	0.63
6	8		0.54	0.35	0.28	0.52
7	4	1 in. Rigid Insulation[e]	0.22	0.18	0.16	0.22
8	8	1 in. Rigid Insulation[e]	0.21	0.17	0.15	0.20
9	4	2 in. Corkboard[e]	0.12	0.11	0.10	0.12
10	8	2 in. Corkboard[e]	0.12	0.11	0.10	0.12

[a] Computed from factors given in Table 7.
[b] Assumed 25/32 in. thick.
[c] Assumed ¾ in. thick.
[d] Assumed 1 in. thick.
[e] The figures for Nos. 5 to 10, inclusive, include 3 in. cinder concrete placed directly on the ground. The insulation is applied between the cinder concrete and the stone concrete. Usually the insulation is protected on both sides by a waterproof membrane, but this is not considered in the calculations.