TABLE 2. CONDUCTIVITIES (k) AND CONDUCTANCES (C) OF BUILDING MATERIALS AND INSULATORS[a]—Continued

The coefficients are expressed in Btu per hour per square foot per degree Fahrenheit per 1 in. thickness unless otherwise indicated.

Material	Description	Density (Lb per Cu Ft)	Mean Temp (Deg Fahr)	Conductivity (k) or Conductance (C)	Resistivity $\left(\frac{1}{k}\right)$ or Resistance $\left(\frac{1}{C}\right)$	Authority
INSULATION—LOOSE FILL OR BAT TYPE —Continued						
Fiber	Fibrous material made from dolomite and silica	1.50	75	0.27	3.70	(3)
	Fibrous material made from slag	9.40	103	0.27	3.70	(1)
Glass Wool	Fibrous material 25 to 30 microns in diameter, made from virgin bottle glass	1.50	75	0.27	3.70	(3)
Granular	Made from combined silicate of lime and alumina	4.20	72	0.24	4.17	(3)
	Made from expanded aluminum-magnesium silicate	6.32	86	0.29	3.45	(3)
Gypsum	Cellular, dry	30.00	90	1.00	1.00	(1)
	" "	24.00	90	0.77	1.30	(1)
	" "	18.00	90	0.59	1.69	(1)
	" "	12.00	90	0.44	2.27	(1)
	Flaked, dry and fluffy[f]	34.00	90	0.60	1.67	(1)
	" " " "	26.00	90	0.52	1.92	(1)
	" " " "	24.00	75	0.48*	2.08	(3)
	" " " "	19.80	90	0.35	2.86	(1)
	" " " "	18.00	75	0.34	2.94	(3)
Mineral Wool	All forms, typical	——	——	0.27*	3.70	——
Regranulated Cork	About ⅜-in. particles	8.10	90	0.31	3.22	(1)
Rock Wool	Fibrous material made from rock	21.00	90	0.30	3.33	(1)
	" " " "	18.00	90	0.29	3.45	(1)
	" " " "	14.00	90	0.28	3.57	(1)
	" " " " "	10.00	90	0.27*	3.70	(1)
	Rock wool with a binding agent	14.50	77	0.33	3.03	(1)
	Rock wool with flax, straw pulp, and binder	14.50	75	0.38	2.63	(3)
	Rock wool with vegetable fibers	11.50	72	0.31	3.22	(3)
Sawdust	Various	12.00	90	0.41	2.44	(1)
Shavings	Various from planer	8.80	90	0.41	2.44	(1)
	From maple, beech and birch (coarse)	13.20	90	0.36	2.78	(1)
	Redwood bark	3.00	90	0.31	3.22	(1)
	Redwood bark	5.00	75	0.26	3.84	(3)
INSULATION—RIGID						
Corkboard	Typical	——	——	0.30*	3.33	——
	No added binder	14.00	90	0.34	2.94	(1)
	" " "	10.60	90	0.30	3.33	(1)
	" " "	7.00	90	0.27	3.70	(1)
	" " "	5.40	90	0.25	4.00	(1)
	Asphaltic binder	14.50	90	0.32	3.12	(1)
Fiber	Typical	——	——	0.33*	3.03	—
	Chemically treated hog hair covered with film of asphalt	10.00	75	0.28	3.57	(3)
	Made from corn stalks	15.00	71	0.33	3.03	(3)
	" " exploded wood fibers	17.90	78	0.32	3.12	(4)
	" " hard wood fibers	15.20	70	0.32	3.12	(3)
	Insulating plaster 9/10-in. thick applied to ⅜-in. plaster board base	54.00	75	1.07†	0.93	(3)
	Made from licorice roots	16.10	81	0.34	2.94	(3)
	" " 85% magnesia and 15% asbestos	19.30	86	0.51	1.96	(1)
	" " shredded wood and cement	24.20	72	0.46	2.17	(3)
	" " sugar cane fiber	13.50	70	0.33	3.03	(3)
	Sugar cane fiber insulation blocks encased in asphalt membrane	13.80	70	0.30	3.33	(3)
	Made from wheat straw	17.00	68	0.33	3.03	(3)
	" " wood fiber	15.90	72	0.33	3.03	(3)
	" " " "	15.00	70	0.33	3.03	(3)
	" " " "	——	52	0.33	3.03	(6)
	" " " "	8.50	72	0.29	3.45	(3)
	" " " "	15.20	——	0.33	3.03	(3)
	" " " "	16.90	90	0.34	2.94	(1)
BUILDING BOARDS						
Asbestos	Compressed cement and asbestos sheets	123.00	86	2.70	0.37	(1)
	Corrugated asbestos board	20.40	110	0.48	2.08	(2)

For notes see Page 95.

TABLE 2. CONDUCTIVITIES (k) AND CONDUCTANCES (C) OF BUILDING MATERIALS AND INSULATORS[a]—Continued

The coefficients are expressed in Btu per hour per square foot per degree Fahrenheit per 1 in. thickness unless otherwise indicated.

Material	Description	Density (Lb per Cu Ft)	Mean Temp (Deg Fahr)	Conductivity (k) or Conductance (C)	Resistivity $\left(\frac{1}{k}\right)$ or Resistance $\left(\frac{1}{C}\right)$	Authority
BUILDING BOARDS —Continued						
Asbestos	Pressed asbestos mill board	60.50	86	0.84	1.19	(1)
	Sheet asbestos	48.30	110	0.29	3.45	(2)
Gypsum	Gypsum between layers of heavy paper	62.80	70	1.41	0.71	(3)
	Rigid, gypsum between layers of heavy paper (½-in. thick)	53.50	90	2.60†	0.38	(1)
	Gypsum mixed with sawdust between layers of heavy paper (0.39-in. thick)	60.70	90	3.60†	0.28	(1)
Plaster Board	(⅜ in.)	——	——	3.73†*	0.27	—
	(½ in.)	——	——	2.82†*	0.35	—
ROOFING CONSTRUCTION						
Roofing	Asphalt, composition or prepared	70.00	75	6.50†*	0.15	(3)
	Built up—⅜-in. thick	——	——	3.53†*	0.28	—
	Built up, bitumen and felt, gravel or slag surfaced[e]	——	——	1.33	0.75	(2)
	Plaster board, gypsum fiber concrete and 3-ply roof covering 2½ in. thick	52.40	76	0.58†	1.72	(4)
Shingles	Asbestos	65.00	75	6.00†*	0.17	(3)
	Asphalt	70.00	75	6.50†*	0.15	(3)
	Slate	201.00	——	10.37*	0.10	(7)
	Wood	——	——	1.28†*	0.78	—
PLASTERING MATERIALS						
Plaster	Cement	——	——	8.00	0.13	(2)
	Gypsum, typical	——	——	3.30*	0.30	—
	Gypsum and expanded aluminum-magnesium silicate, mix 4 to 1	39.9	75	0.85	1.18	(3)
	Thickness ⅜ in.	——	73	8.80†	0.11	(4)
Metal Lath and Plaster	Total thickness ¾ in.	——	——	4.40†*	0.23	—
Wood Lath and Plaster	⅜-in. plaster, total thickness ¾ in.	——	70	2.50†*	0.40	(4)
BUILDING CONSTRUCTIONS						
Frame	1-in. fir sheathing and building paper	——	30	0.86†*	1.16	(4)
	1-in. fir sheathing, building paper, and yellow pine lap siding	——	20	0.50†*	2.00	(4)
	1-in. fir sheathing, building paper and stucco	——	20	0.82	1.22	(4)
	Pine lap siding and building paper—siding 4 in. wide	——	16	0.85†*	1.18	(4)
	Yellow pine lap siding	——	——	1.28†*	0.78	—
Flooring	Maple—across grain	40.00	75	1.20	0.83	(3)
	Battleship linoleum (¼-in.)	——	——	1.36†*	0.74	—
AIR SPACE AND SURFACE COEFFICIENTS						
Air Spaces	Over ¾ in. faced ordinary building materials	——	40	1.10†*	0.91	(4)
	⅜ in. faced ordinary building materials					
	Horizontal, heat flow upward, $e = 0.83^A$	——	——	1.32	0.76	(8)
	Vertical, $e = 0.83^A$	——	——	1.17	0.86	(8)
	Horizontal, heat flow downward, $e = 0.83^A$	——	——	0.94	1.06	(8)
	⅜ in. faced reflective building materials					
	Horizontal, heat flow upward, $e = 0.05^i$	——	——	0.56	1.79	(8)
	Vertical, $e = 0.05^i$	——	——	0.41	2.44	(8)
	Horizontal, heat flow downward, $e = 0.05^i$	——	——	0.17	5.88	(8)
Surfaces, Ordinary	Still air (f_i), Avg	——	——	1.65†*	0.61	(4)
	Horizontal, heat flow upward, $e = 0.83(f_i)^A$	——	——	1.95†	0.51	(8)
	Vertical, $e = 0.83(f_i)^A$	——	——	1.52†	0.66	(8)
	Horizontal, heat flow downward, $e = 0.83(f_i)^A$	——	——	1.21†	0.83	(8)
	15 mph—(f_o)	——	——	6.00†*	0.17	(4)
Surfaces, Rough Stucco	15 mph—(f_o)	——	——	9.00†	0.11	(4)
Surface, Reflective	Still air (f_i), Avg	——	——	0.80†*	1.25	(8)
	Horizontal, heat flow upward, $e = 0.05(f_i)^i$	——	——	1.16†	0.86	(8)
	Vertical, $e = 0.05(f_i)^i$	——	——	0.74†	1.35	(8)
	Horizontal, heat flow downward, $e = 0.05(f_i)^i$	——	——	0.44†	2.27	(8)

For notes see Page 95.