

TABLE 2. CONDUCTIVITIES (k) AND CONDUCTANCES (C) OF BUILDING MATERIALS AND INSULATORS—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 ($\frac{1}{k}$) OR RESISTANCE ($\frac{1}{C}$)	AUTHORITY
INSULATION—LOOSE FILL OR BAT TYPE —Continued	FIBER					
	Fibrous material made from dolomite and silica	1.50	75	0.27	3.70	(3)
GLASS WOOL	Fibrous material made from slag	9.40	103	0.27	3.70	(1)
	Fibrous material 25 to 30 microns in diameter, made from virgin bottle glass	1.50	75	0.27	3.70	(1)
GRANULAR	Made from combined silicate of lime and alumina	4.20	72	0.24	4.17	(3)
	Made from expanded aluminum-magnesium silicate	6.20	42	0.32	3.12	(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	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)
MINERAL WOOL	All forms, typical	18.00	75	0.34	2.94	(3)
	About $\frac{1}{8}$ -in. particles	8.10	90	0.27*	3.70	(1)
REGRANULATED CORK	Fibrous material made from rock	21.00	90	0.30	3.33	(1)
	" " " "	18.00	90	0.29	3.45	(1)
ROCK WOOL	" " " "	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)
SAWDUST	Rock wool with vegetable fibers	11.50	72	0.31	3.22	(3)
	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)
INSULATION—RIGID CORKBOARD	Typical			0.30*	3.33	(1)
	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	(1)
	Chemically treated hog hair covered with film of asphalt	10.00	75	0.28	3.57	(1)
	Made from corn stalks	15.00	71	0.33	3.03	(3)
	" " exploded wood fibers	17.90	78	0.36	3.12	(1)
	" " hard wood fibers	15.20	70	0.32	3.12	(3)
	Insulating plaster 9/10-in. thick applied to $\frac{1}{4}$ -in. plaster board base	54.00	75	1.07†	0.93	(3)
	Made from licorice roots	16.10	81	0.34	2.94	(3)
	Made from 85% magnesia and 15% asbestos	19.30	86	0.51	1.96	(1)
	Made from 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	33	0.33	3.03	(3)
	" " " "	8.50	72	0.29	3.45	(3)
	" " " "	15.20	33	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)

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Material	Description	Density (Lb per Cu Ft)	MEAN TEMP. (DEG FAHR)	CONDUCTIVITY (k) OR CONDUCTANCE (C)	RESISTIVITY ($\frac{1}{k}$) OR RESISTANCE ($\frac{1}{C}$)	AUTHORITY
BUILDING BOARDS —Continued	ASBESTOS					
	Pressed asbestos mill board	60.50	86	0.84	1.19	(1)
GYPSUM	Sheet asbestos	48.30	110	0.29	3.45	(2)
	Gypsum between layers of heavy paper	62.80	70	1.41	0.71	(3)
	Rigid, gypsum between layers of heavy paper ($\frac{1}{4}$ -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	($\frac{1}{2}$ in.)			3.73†	0.27	—
	($\frac{3}{8}$ in.)			2.82†	0.35	—
ROOFING CONSTRUCTION	ROOFING					
	Asphalt, composition or prepared	70.00	75	6.50†*	0.15	(3)
	Built up— $\frac{3}{8}$ -in. thick			3.53†*	0.28	—
	Built up, bitumen and felt, gravel or slag surfaced			1.33	0.75	(2)
SHINGLES	Plaster board, gypsum fiber concrete and 3-ply roof covering $2\frac{1}{2}$ in. thick	52.40	76	0.58†	1.72	(4)
	Asbestos	65.00	75	6.00†*	0.17	(3)
	Asphalt	70.00	75	6.50†*	0.15	(3)
	Shale	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	—
	Thickness $\frac{1}{2}$ in.		73	8.80†	0.11	(4)
METAL LATH AND PLASTER	Total thickness $\frac{1}{2}$ in.			4.40†*	0.23	—
	$\frac{1}{2}$ -in. plaster, total thickness $\frac{1}{2}$ in.		70	2.50†*	0.40	(4)
BUILDING CONSTRUCTIONS	FRAME					
	1-in. fir sheathing and building paper		30	0.71†*	1.41	(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	0.55	1.82	(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 ($\frac{1}{4}$ -in.)			1.36†*	0.74	—
AIR SPACE AND SURFACE COEFFICIENTS	AIR SPACES					
	Over $\frac{1}{4}$ -in. faced with ordinary building materials		40	1.10†*	0.91	(4)
SURFACES, ORDINARY	Still air (f)			1.65†*	0.61	(4)
	15 mph—(f_o)			6.00†*	0.17	(4)
SURFACE, ROUGH STUCCO	15 mph—(f_o)			9.00†*	0.11	(4)
	Still air (f)		60	1.18†	0.85	—
SURFACE, BRIGHT ALUMINUM	Still air (f)					
	Still air (f)					
AIR SPACES FACED WITH BRIGHT ALUMINUM FOIL	AIR SPACES					
	Air space, faced one side with bright aluminum foil, over $\frac{1}{4}$ -in. wide		50	0.46†*	2.17	(4)
	Air space, faced one side with bright aluminum foil, $\frac{1}{2}$ -in. wide		50	0.62†	1.61	(4)
	Air space, faced both sides with bright aluminum foil, over $\frac{1}{4}$ -in. wide		50	0.41†*	2.44	(4)
	Air space, faced both sides with bright aluminum foil, $\frac{1}{2}$ -in. wide		50	0.57†	1.75	(4)

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