

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 OR RESISTANCE (R) ($\frac{1}{k}$)	AUTHORITY
INSULATION—BLANKET OR FLEXIBLE TYPES FIBER	Typical	—	—	0.27*	3.70	—
	Chemically treated wood fibers held between layers of strong paper/	3.62	70	0.25	4.00	(3)
	Eel grass between strong paper/	4.60	90	0.26	3.85	(1)
		3.40	90	0.25	4.00	(1)
	Fabric with non-metallic reflective surface ($\frac{1}{4}$ in. thick)	—	70	0.33†	3.03	(3)
	Flax fibers between strong paper/	4.90	90	0.28	3.57	(1)
	Chemically treated hog hair between kraft paper/	5.76	71	0.26	3.85	(3)
	Chemically treated hog hair between kraft paper and asbestos paper/	7.70	71	0.28	3.57	(3)
	Hair felt between layers of paper/	11.00	75	0.25	4.00	(1)
	Kapok between burlap or paper/	1.00	90	0.24	4.17	(1)
	Jute fiber/	6.70	75	0.25	4.00	(3)
INSULATION—SEMI-RIGID TYPE FIBER	Felted cattle hair/	13.00	90	0.26	3.84	(1)
		11.00	90	0.26	3.84	(1)
	Flax/	12.10	70	0.30	3.33	(3)
	Flax and rye/	13.60	90	0.32	3.12	(1)
	Felted hair and asbestos/	7.80	90	0.28	3.57	(1)
	75% hair and 25% jute/	6.30	90	0.27	3.70	(1)
	50% hair and 50% jute/	6.10	90	0.26	3.85	(1)
	Jute/	6.70	75	0.25	4.00	(3)
	Felted jute and asbestos/	10.00	90	0.37	2.70	(1)
	Compressed peat moss	11.00	70	0.26	3.84	(3)
INSULATION—LOOSE FILL OR BAT TYPE FIBER	Made from coir fibers/	1.90	75	0.23	4.35	(3)
		1.60	75	0.24	4.17	(3)
	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)
	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	6.20	42	0.32	3.12	(3)
	Cellular, dry	30.00	90	1.00	1.00	(1)
	" " " "	24.00	90	0.77	1.30	(1)
GLASS WOOL	" " " "	18.00	90	0.59	1.69	(1)
	" " " "	12.00	90	0.44	2.27	(1)
	" " " "	34.00	90	0.60	1.67	(1)
	Flaked, dry and fluffy/	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)
	" " " "	—	—	0.27*	3.70	—
	MINERAL WOOL					
	REGRANULATED CORK	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	(3)
	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)
	Various	12.00	90	0.41	2.44	(1)
	From maple, beech and titch (coarse)	8.80	90	0.41	2.44	(1)
	Redwood bark	13.20	90	0.36	2.78	(1)
SAWDUST SHAVINGS		3.00	90	0.31	3.22	(1)
INSULATION—RIGID CORKBOARD	Typical	—	—	0.30*	3.33	—

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Material	Description	DENSITY (Lb per Cu Ft)	MEAN TEMP. (DEG FAHR)	CONDUCTIVITY (k) OR CONDUCTANCE (C)	RESISTIVITY OR RESISTANCE (R) ($\frac{1}{k}$)	AUTHORITY
INSULATION—RIGID —Continued CORKBOARD	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)
	Typical	—	—	0.33*	3.03	—
	Core of fiber board coated two sides with non-metallic reflective surface ($\frac{3}{8}$ in. thick)	23.4	70	0.27†	3.70	(3)
	Fiber board coated one side with non-metallic reflective surface ($\frac{3}{8}$ in. thick)	—	75	0.49†	2.04	(3)
	Made from chemically treated wood fiber	20.00	70	0.36	2.78	(3)
	Made from chemically treated wood and vegetable fibers	25.00	75	0.38	2.63	(3)
FIBER	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 fiber	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 $\frac{3}{4}$ -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)
BUILDING BOARDS	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)
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)
	Pressed asbestos mill board	60.50	86	0.84	1.19	(1)
	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 ($\frac{1}{2}$ -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)
	($\frac{1}{2}$ in.)	—	—	3.73*	0.27	—
	($\frac{1}{2}$ in.)	—	—	2.82*	0.35	—
PLASTER BOARD						
ROOFING CONSTRUCTION	Asphalt, composition or prepared	70.00	75	6.50†	0.15	(3)
	Built up— $\frac{1}{2}$ -in. thick	—	—	3.53†	0.28	—
	Built up, bitumen and felt, gravel or slag surfaced	—	—	1.33†	0.75	(2)
	Plaster board, gypsum fiber concrete and 3-ply roof covering	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)
	State	201.00	—	10.37*	0.10	(7)
	Wood	—	—	1.28†	0.78	(1)
SHINGLES						
PLASTERING MATERIALS	Cement	—	—	8.00	0.13	(2)
	Gypsum, typical	—	—	3.30*	0.30	—
	Thickness $\frac{1}{2}$ in.	—	73	8.80†	0.11	(4)
	Total thickness $\frac{1}{2}$ in.	—	—	4.40†	0.23	(4)
	WOOD LATH AND PLASTER					
	$\frac{1}{2}$ -in. plaster, total thickness $\frac{1}{2}$ in.	70	—	2.50†	0.40	(4)

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