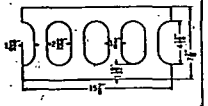
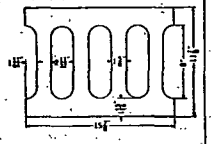
TABLE 2. CONDUCTIVITIES (k) AND CONDUCTANCES (C) OF BUILDING AND INSULATING MATERIALS—Continued

These constants are expressed in Btu per (hour) (square foot) (Fahrenheit degree temperature difference). Conductivities (k) are per inch thickness and conductances (C) are for thickness or construction stated, not per inch thickness.

Material	Description	Density (Lb per Cu Ft)	Mean Temp (Fahr Deg)	Conductivity or Conductance (k)	Conductivity or Conductance (C)	Resistance Per Inch Thickness $\left(\frac{1}{k}\right)$	Resistance For Thickness Listed $\left(\frac{1}{C}\right)$	Authority
MASONRY MATERIALS—(Continued)								
Concrete—(Continued)	Expanded vermiculite aggregate	35	90	0.86	....	1.16	.....	(3)
	Expanded vermiculite aggregate	50	90	1.10	....	0.91	.....	(3)
	Concrete plank	76	75	2.5	....	0.40	.....	(3)
	Cellular concrete	40.0	75	1.06	....	0.94	.....	(3)
	Cellular concrete	50.0	75	1.44	....	0.69	.....	(3)
	Cellular concrete	60.0	75	1.80	....	0.56	.....	(3)
	Cellular concrete	70.0	75	2.18	....	0.46	.....	(3)
8 In. Concrete Blocks 	8 in. three oval core, sand and gravel aggregate[a]	126.4	40	.....	0.90	.....	1.11	(4)
	8 in. three oval core, crushed limestone aggregate[a]	134.3	40	.....	0.86	.....	1.16	(4)
	8 in. three oval core, cinder aggregate[a]	86.2	40	.....	0.58	.....	1.73	(4)
	8 in. three oval core, burned clay aggregate[a]	67.7	40	.....	0.50	.....	2.00	(4)
	8 in. three oval core, expanded blast furnace slag aggregate[a]	.....	40	.....	0.49	.....	2.04	(4)
12 In. Concrete Blocks 	12 in. three oval core, sand and gravel aggregate[a]	124.9	40	.....	0.78	.....	1.28	(4)
	12 in. three oval core, cinder aggregate[a]	86.2	40	.....	0.53	.....	1.88	(4)
	12 in. three oval core, burned clay aggregate[a]	76.7	40	.....	0.47	.....	2.13	(4)
Gypsum	3 in. solid gypsum partition tile[a]	.....	....	2.41	....	0.42	.....	(4)
	3 in. three cell gypsum partition tile[a]	.....	....	.....	0.74	.....	1.35	(4)
	4 in. three cell gypsum partition tile[a]	.....	....	.....	0.60	.....	1.67	(4)
	87½ per cent gypsum, 12½ per cent wood chips	51.2	74	1.66	....	0.60	.....	(4)
	Gypsum plaster	.....	....	3.30	....	0.30	.....	
PLASTERING MATERIALS	Gypsum plaster, ⅝ in. thick	.....	73	.....	8.80	.....	0.11	(4)
	Cement plaster	.....	....	8.00	....	0.13	.....	(2)
	Wood, lath and plaster, total thickness ¾ in.	.....	70	.....	2.50	.....	0.40	(4)
	Gypsum plaster and expanded vermiculite, 4 to 1 mix	39.9	75	0.85	....	1.18	.....	(3)
	Insulating plaster 0.9 in. thick applied to ⅜ in. gypsum board	54.0	75	.....	1.07	.....	0.93	(3)
ROOFING	Asbestos shingles	65.0	75	.....	6.0	.....	0.17	(3)
	Asphalt, composition or prepared	70.0	75	.....	6.5	.....	0.15	(3)
	Asphalt shingles	70.0	75	.....	6.5	.....	0.15	(3)
	Built-up roofing, bitumen or felt, gravel or slag surfaced[a]	.....	....	1.33	....	0.75	.....	(2)
	Slate	.....	....	10.00	....	0.10	.....	
	Wood shingles	.....	....	.....	1.28	.....	0.78	
WOODS	Balsa	20.0	90	0.58	....	1.72	.....	(1)
	Balsa	8.8	90	0.38	....	2.63	.....	(1)
	Balsa	7.3	90	0.33	....	3.03	.....	(1)
	California redwood, 0 per cent moisture[a]	28.0	75	0.70	....	1.43	.....	(4)
	Cypress	28.7	86	0.67	....	1.49	.....	(1)
	Douglas fir, 0 per cent moisture[a]	34.0	75	0.67	....	1.49	.....	(4)
	Eastern hemlock, 0 per cent moisture[a]	30.0	75	0.76	....	1.32	.....	(4)
	Long leaf yellow pine, 0 per cent moisture[a]	40.0	75	0.86	....	1.16	.....	(4)
	Mahogany	34.3	86	0.90	....	1.11	.....	(1)

See notes on Page 117.

TABLE 2. CONDUCTIVITIES (k) AND CONDUCTANCES (C) OF BUILDING AND INSULATING MATERIALS—Continued

These constants are expressed in Btu per (hour) (square foot) (Fahrenheit degree temperature difference). Conductivities (k) are per inch thickness and conductances (C) are for thickness or construction stated, not per inch thickness.

Material	Description	Density (Lb per Cu Ft)	Mean Temp (Fahr Deg)	Conductivity or Conductance (k)	Conductivity or Conductance (C)	Resistance Per Inch Thickness $\left(\frac{1}{k}\right)$	Resistance For Thickness Listed $\left(\frac{1}{C}\right)$	Authority
WOODS—(Continued)	Hard maple, 0 per cent moisture[a]	46.0	75	1.05	....	0.95	.....	(4)
	Maple	44.3	86	1.10	....	0.91	.....	(1)
	Maple, across grain	40.0	75	1.20	....	0.83	.....	(3)
	Norway pine, 0 per cent moisture[a]	32.0	75	0.74	....	1.35	.....	(4)
	Red cypress, 0 per cent moisture[a]	32.0	75	0.79	....	1.27	.....	(4)
	Red oak, 0 per cent moisture[a]	48.0	75	1.18	....	0.85	.....	(4)
	Short leaf yellow pine, 0 per cent moisture[a]	36.0	75	0.91	....	1.10	.....	(4)
	Soft elm, 0 per cent moisture[a]	34.0	75	0.88	....	1.14	.....	(4)
	Soft maple, 0 per cent moisture[a]	42.0	75	0.95	....	1.05	.....	(4)
	Sugar pine, 0 per cent moisture[a]	28.0	75	0.64	....	1.56	.....	(4)
	Virginia pine	34.3	86	0.96	....	1.04	.....	(1)
	West coast hemlock, 0 per cent moisture[a]	30.0	75	0.79	....	1.27	.....	(4)
	White pine	31.2	86	0.78	....	1.28	.....	(1)
	Yellow pine	.....	....	1.00	....	1.00	.....	(3)
	Sawdust, various	12.0	90	0.41	....	2.44	.....	(1)
	Shavings, various from planer	8.8	90	0.41	....	2.44	.....	(1)
	Shavings, from maple beech and birch (coarse)	13.2	90	0.36	....	2.78	.....	(1)
INSULATING MATERIALS								
Blanket and Bat Insulations	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)
	Eel grass between strong paper	3.40	90	0.25	....	4.00	.....	(1)
	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	.....	(3)
	Kapok between burlap or paper	1.00	90	0.24	....	4.17	.....	(1)
	Stitched and creped expanding fibrous blanket	1.50	70	0.27	....	3.70	.....	(3)
	Paper and asbestos fiber with emulsified asphalt binder	4.2	94	0.28	....	3.57	.....	(1)
	Cotton insulating bat	0.875	72	0.24	....	4.17	.....	(3)
	Cotton fibers							
	Short Staple Linters, Fireproofed	6.25	90	0.25	....	4.00	.....	(1)
	Short Staple Linters, Fireproofed	4.50	90	0.24	....	4.17	.....	(1)
	Short Staple Linters, Fireproofed	2.45	90	0.24	....	4.17	.....	(1)
	Short Staple Linters, Fireproofed	1.60	90	0.26	....	3.85	.....	(1)
	Short Staple Linters, Fireproofed	0.85	90	0.29	....	3.45	.....	(1)
	Short Staple Linters, Fireproofed	0.65	90	0.30	....	3.33	.....	(1)
	Felted cattle hair	13.00	90	0.26	....	3.84	.....	(1)
	Felted cattle hair	11.00	90	0.26	....	3.84	.....	(1)
	Felted hair and asbestos	7.80	90	0.28	....	3.57	.....	(1)
	Ground paper between two layers, each ⅛ in. thick made up of two layers of kraft paper (sample ¼ in. thick)	12.1	75	.....	0.40	.....	2.50	(4)
Reflective	See Table 1, Section C	.....	....	.....	....	.....	.....	
Insulating Board	Made from sugar cane fiber	13.5	70	0.33	....	3.03	.....	(3)
	Made from corn stalks	15.00	71	0.33	....	3.03	.....	(3)
	Made from exploded wood fibers	17.90	78	0.32	....	3.12	.....	(4)
	Made from hard wood fibers	15.20	70	0.32	....	3.12	.....	(3)
	Made from wood fiber	15.90	72	0.33	....	3.03	.....	(3)
	Made from wood fiber	15.00	70	0.33	....	3.03	.....	(3)
	Made from wood fiber	.....	52	0.33	....	3.03	.....	(6)
	Made from wood fiber	8.50	72	0.29	....	3.45	.....	(3)
	Made from wood fiber	15.20	....	0.33	....	3.03	.....	(3)
	Made from wood fiber	16.90	90	0.34	....	2.94	.....	(1)

See notes on Page 117.