

TABLE 5. INTERNAL CONDUCTIVITIES OF BUILDING MATERIALS AND INSULATIONS¹—Continued

MATERIAL	DESCRIPTION	DENSITY (LB. PER CU. FT.)	MEAN TEMP. OF SAMPLE (DEG. FAHR.)	INTERNAL CONDUCTIV- ITY (C OR CU)	AUTHORITY ¹⁴
4 in. Hollow Clay Tile				0.65 ²	Calculated ⁴
6 in. Hollow Clay Tile				0.50 ²	Calculated ⁴
8 in. Hollow Clay Tile				0.43 ²	Estimated
12 in. Hollow Clay Tile				0.26 ²	Estimated
16 in. Hollow Clay Tile				0.185 ²	Estimated
Magnesia Board		13.5	110	0.51	Willard, Lichty & Harding
Magnesia (85 per cent) and Asbestos (15 per cent).	Rigid	19.3	86	0.508	Bureau of Standards
Plaster	Gypsum	46.2	86	2.32 ¹¹	Bureau of Standards
Plaster	Cement			8.00 ¹¹	Willard, Lichty & Harding
Plaster Board	Gypsum between layers of heavy paper.	62.8	70	1.41	Peebles, Armour Institute
Plaster Board			86	3.04	Bureau of Standards
Roofing ⁸	Built-up bitumen and felt, gravel or slag surfaced.			1.325 ⁵	Willard, Lichty & Harding
Roofing ⁸	Built-up bitumen and felt, gravel or slag surfaced.			5.30 ²⁻⁵	Willard, Lichty & Harding
Roofing	Composition or prepared.		75	6.50 ²	Peebles, Armour Institute
Sawdust	Ordinary		86	1.04	Bureau of Standards
Shavings	Ordinary		86	0.707	Bureau of Standards
Sheetrock	Gypsum mixed with sawdust between layers of heavy paper (0.39 in. thick).	60.7	90	3.60 ²	Bureau of Standards
Slate			201	10.37	Lees & Chorlton
Stone	Limestone or Sandstone.			10.0	Estimated ⁶
Stucco				8.00 ⁷	Willard, Lichty & Harding
Wood lath and plaster ¹²	Lime plaster		75	2.0 ²	Peebles, Armour Institute
Woods:					
Cypress	Across grain	28.7	86	0.668	Bureau of Standards
Fir	Across grain	33.4		1.000	Willard, Lichty & Harding
Maple Flooring	Across grain	40.0	75	1.20	Peebles, Armour Institute
Maple	Across grain	44.3	86	1.103	Bureau of Standards
Mahogany	Across grain	34.3	86	0.900	Bureau of Standards
Oak	Across grain	42.0	75	1.30	Peebles, Armour Institute
Virginia Pine	Across grain	34.3	86	0.958	Bureau of Standards
White Pine	Across grain	31.2	86	0.784	Bureau of Standards
Yellow Pine	Across grain			1.000	Peebles, Armour Institute

B. Insulations (Dry)

Balsa wood	Across grain	20.0	90	0.58	Bureau of Standards
Balsa wood	Across grain	8.8	90	0.38	Bureau of Standards
Balsa wood	Across grain	7.3	90	0.33	Bureau of Standards
Balsam wool ¹⁰	Chemically treated wood fiber.	2.2	90	0.27	Bureau of Standards
Cabots quilt ¹⁰	Eel grass between Kraft paper.	4.6	90	0.26	Bureau of Standards
Cabots quilt ¹⁰	Eel grass between Kraft paper.	3.4	90	0.25	Bureau of Standards
Celotex	Board form insulation made from sugar cane fiber.	13.5	70	0.33	Peebles, Armour Institute
Celotex	Board form insulation made from sugar cane fiber.	13.2	90	0.34	Bureau of Standards

¹See footnotes 1 to 14 on p. 15.TABLE 5. INTERNAL CONDUCTIVITIES OF BUILDING MATERIALS AND INSULATIONS¹—Continued

B. Insulations (Dry)—(Continued)

MATERIAL	DESCRIPTION	DENSITY (LB. PER CU. FT.)	MEAN TEMP. OF SAMPLE (DEG. FAHR.)	INTERNAL CONDUCTIV- ITY (C OR CU)	AUTHORITY ¹⁴
Corkboard	Pure; no added binder.	14.0	90	0.34	Bureau of Standards
Corkboard	Pure; no added binder.	10.6	90	0.30	Bureau of Standards
Corkboard	Pure; no added binder.	7.0	90	0.27	Bureau of Standards
Corkboard	Pure; no added binder.	9.7		0.32	Willard, Lichty & Harding
Dry zero ¹⁰	Kapok between burlap or paper.	2.0	90	0.25	Bureau of Standards
Fibrofelt ¹⁰	Flax and rye fiber.	13.6	90	0.32	Bureau of Standards
Flaxinum ¹⁰	Flax fiber.	13.0	90	0.31	Bureau of Standards
Flaxinum ¹⁰	Flax fiber.	14.0	70	0.32	Peebles, Armour Institute
Hairinsul ¹⁰	75 per cent hair.	6.3	90	0.27	Bureau of Standards
Hairinsul ¹⁰	25 per cent jute.				
Hairinsul ¹⁰	50 per cent hair.	6.1	90	0.26	Bureau of Standards
Hairinsul ¹⁰	50 per cent jute.				
Hair felt ¹⁰	Felted Cattle Hair	13.0	90	0.26	Bureau of Standards
Hair felt ¹⁰	Felted Cattle Hair	11.0	90	0.26	Bureau of Standards
Homasote Building Board (3/4" thick)	Wall Board made from paper pulp.	22.9	70	0.40	Peebles, Armour Institute
Inso Board	Board form insulation made from wheat straw.	17.0	68	0.33	Peebles, Armour Institute
Insulux or Pyrocell	Cellular Gypsum	30.0	90	1.00	Bureau of Standards
Insulux or Pyrocell	Cellular Gypsum	30.0	75	0.92	Peebles, Armour Institute
Insulux or Pyrocell	Cellular Gypsum	24.0	90	0.77	Bureau of Standards
Insulux or Pyrocell	Cellular Gypsum	24.0	75	0.737	Peebles, Armour Institute
Insulux or Pyrocell	Cellular Gypsum	18.0	90	0.59	Bureau of Standards
Insulux or Pyrocell	Cellular Gypsum	18.0	75	0.566	Peebles, Armour Institute
Insulux or Pyrocell	Cellular Gypsum	12.0	90	0.44	Bureau of Standards
Insulux or Pyrocell	Cellular Gypsum	12.0	75	0.400	Peebles, Armour Institute
Insulux or Pyrocell	Board form insulation made from wood pulp.	16.9	90	0.34	Bureau of Standards
Insulite	Board form insulation made from wood pulp.	16.5	70	0.34	Peebles, Armour Institute
Keystone Hair ¹⁰		11.0	75	0.25	Peebles, Armour Institute
Linofelt ¹⁰	Flax fibers between paper.	4.9	90	0.28	Bureau of Standards
Lith	Rock wool, flax and straw pulp with binder.	14.3	90	0.40	Bureau of Standards
Lith	Rock wool, flax and straw pulp with binder.	14.5	75	0.38	Peebles, Armour Institute
Masonite	Board form insulation made from exploded wood fiber.	18.0	75	0.33	Peebles, Armour Institute
Maftex	Board form of insulation made from roots of licorice.	16.1	81	0.337	Peebles, Armour Institute
Reggranulated Cork	About 3/4 in. particles.	8.1	90	0.31	Bureau of Standards
Rock Cork	Rock Wool and Waterproof binder.	16.7	86	0.37	Bureau of Standards
Rock Wool ¹⁰	Fibrous material, made from rock. Also made in sheet form, felted and confined with netting.	10.0	90	0.27	Bureau of Standards

¹See footnotes 1 to 14 on p. 15.