Wood Conversion Company

General Office and Factory at

Cloquet, Minnesota

Manufacturers of

Balsam-Wool Blanket

District Sales Offices

CHICAGO, ILL.	1908 London Guaranty Bldg.	NEW YORK, N. Y.	3107 Chanin Bldg.
DETROIT, MICH.	515 Stephenson Bldg.	MINNEAPOLIS, MINN.	414 Baker Bldg.
KANSAS CITY, MO.	231 West 47th St.	SAN FRANCISCO, CALIF.	149 California St.
SEATTLE, WASH.	621 Ligget Bldg.		

Also Mfgrs. of NU-WOOD the All-Wood Insulating Wall Board and Lath

BALSAM-WOOL Standard Building Insulation is a flexible insulating blanket made from pure wood fibers in fleecy wool form, permanently matted together between two sheets of asphalt-coated, tough, flexible, creped Kraft paper. These patented crepe paper liners are capable of 25 per cent stretch which makes them virtually puncture proof, and the fact that these liners are not stitched renders BALSAM-WOOL windproof and waterproof. In the process of manufacture, BALSAM-WOOL is chemically treated to make it fire resistant, vermin and rot proof. It is clean, odorless and sanitary—a Weyerhaeuser product.

Sizes—BALSAM-WOOL for building insulation comes in three standard widths, 17, 25 and 33 in. and in two standard thicknesses, ½ and full inch. It comes rolled, wrapped and sealed. ½ in. BALSAM-WOOL weighs 240 lb. per 1,000 sq. ft., and full inch BALSAM-WOOL weighs 370 lb. per 1,000 sq. ft.

Application—In frame construction, BALSAM-WOOL 17 and 25 in. wide is

applied between the studding, joists or roof rafters, flanged in the air space between sheathing and plaster. BALSAM-WOOL 33 in. wide is applied to the inside face of the studding or joists with furred out lath and plaster. In solid masonry construction, 17 or 25 in. BALSAM-WOOL is applied by flanging between furring strips 16 or 24 in. on center. 33 in. BALSAM-WOOL is applied with either single or double furring strips.

Efficiency—BALSAM-WOOL has been tested for insulating efficiency in various laboratories throughout the country. In a building insulated with BALSAM-WOOL, 20 to 35 per cent less radiation and boiler capacity is required. The coefficients given on the next page are recommended for use in computing the heat loss through sections insulated with BALSAM-WOOL. A complete file showing coefficients and the method of computing radiation requirements and fuel saving (A.I.A. File No. 37-b) will be mailed on request.

Test Results

Hot Plate Method

Material	Mean Temp. Deg. Fahr.	Thermal Conductivity per Hour	Authority
Balsam-Wool	70	0.246	Peebles
Balsam-Wool	90	0.27	Bureau of Standards

Hot Box Method

Description	Mean Temp. Deg. Fahr.	Heat Transmission Factor *U*	Authority
*⅜" Wood Lath and ⅜" Plaster, ¾" fir sheathing, building paper, 4" lap siding, insulation "C," flanged midway in air space between studding.	40.2	0.115	Rowley

*Taken from Journal of A. S. H. & V. E., Vol. 34, No. 7 (July, 1928), Page 536.
Insulation "C"—½ in BALSAM-WOOL

Heat Transmission Coefficients for Building Construction Insulated With BALSAM-WOOL

Section No.	TYPE OF CONSTRUCTION	Plastered Direct	Furred Wood Lath and Plaster	½" B-W Single Furring*	½" B-W Double Furring†	1" B-W Single Furring*	1" B-W Double Furring†
	Walls, Masonry						
1	9" Brick	0.332	0.209	0.141	0.116	0.112	0.096
2	13" Brick	0.263	0.179	0.127	0.107	0.103	0.089
3	18" Brick	0.208	0.152	0.113	0.097	0.093	0.082
4	6" Hollow Tile, Stucco	0.299	0.196	0.135	0.112	0.108	0.093
5	8" Hollow Tile, Stucco	0.273	0.184	0.129	0.108	0.104	0.090
6	12" Hollow Tile, Stucco	0.193	0.144	0.108	0.093	0.090	0.079
7	4" Brick Veneer, 4" H.T.	0.277	0.186	0.130	0.109	0.105	0.091
8	4" Brick Veneer, 6" H.T.	0.246	0.171	0.122	0.104	0.100	0.087
9	4" Brick Veneer, 8" H.T.	0.228	0.162	0.118	0.100	0.097	0.084
10	4" Brick Veneer, 12" H.T.	0.169	0.130	0.100	0.087	0.084	0.075
11	12" Stone	0.415	0.239	0.154	0.125	0.120	0.102
12	16" Stone	0.356	0.218	0.145	0.119	0.114	0.098
13	20" Stone	0.311	0.200	0.136	0.113	0.109	0.094
14	8" Concrete, Stucco	0.437	0.246	0.157	0.127	0.121	0.103
15	10" Concrete, Stucco	0.395	0.232	0.151	0.123	0.118	0.100
16	12" Concrete, Stucco	0.361	0.220	0.146	0.120	0.115	0.098
17	16" Concrete, Stucco	0.308	0.199	0.136	0.113	0.109	0.094
18	8" Concrete Block	0.348	0.215	0.144	0.119	0.114	0.097
19	12" Concrete Block	0.271	0.183	0.128	0.108	0.104	0.090
20	6" Cinder Block, Stucco	0.328	0.207	0.140	0.116	0.111	0.095
21	8" Cinder Block, Stucco	0.276	0.185	0.129	0.108	0.104	0.090
22	12" Cinder Block, Stucco	0.210	0.153	0.113	0.097	0.093	0.082
23	4" Cut Stone Veneer, 9" Brick	0.300	0.196	0.134	0.112	0.108	0.093
24	4" Cut Stone Veneer, 13" Brick	0.234	0.165	0.119	0.101	0.098	0.085

Section No.	TYPE OF CONSTRUCTION	Not Insulated	½" B-W†	1" B-W†
	Walls, Frame			
25	Siding or Wood Shingles, Paper, Sheathing, Wood Lath and Plaster	0.227	0.122	0.099
26	Brick Veneer, Paper, Sheathing, Wood Lath and Plaster	0.216	0.118	0.097
27	Stucco, Paper, Sheathing, Wood Lath and Plaster	0.257	0.130	0.105
	Ceilings:			
28	Wood Lath and Plaster, No Floor Above	0.502	0.172	0.131
29	Wood Lath and Plaster, 1" Pine Flooring Above	0.234	0.124	0.101
30	Wood Lath and Plaster, 1" Pine, 13/16" Oak or Maple Flooring Above	0.202	0.114	0.094
	Partitions:			
31	Studding, Wood Lath and Plaster One Side	0.502	0.172	0.131
32	Studding, Wood Lath and Plaster Both Sides	0.251	0.128	0.104
33	4" Hollow Tile, Plaster One Side	0.31**	0.181*	0.135*
	Roofs:			
34	Built-up Roofing on 1" Roof Boards, Wood Lath and Plaster Inside	0.258	0.130	0.105
35	Same as 34, with 2" Roof Boards	0.213	0.117	0.097
36	Wood Shingles on Roof Boards, No Inside Finish	0.483	0.170	0.129
37	Same as 36, Wood Lath and Plaster Inside	0.246	0.127	0.103
38	Asphalt or Asbestos Shingles on Roof Boards, No Inside Finish	0.515	0.174	0.131
39	Same as 38, Wood Lath and Plaster Inside	0.259	0.130	0.105
40	Slate or Tile on Roof Boards, No Inside Finish	0.549	0.177	0.134
41	Same as 40, Wood Lath and Plaster Inside	0.262	0.131	0.105
	‡Roof and Ceiling Combined—Use Ceiling Area:			
42	Wood Shingles, Wood Lath and Plaster Ceiling, No Attic Floor	0.289	0.137	0.110
43	Same as 42, with Single Floor	0.174	0.105	0.088
44	Asphalt or Asbestos Shingles, Wood Lath and Plaster Ceiling, No Attic Floor	0.297	0.139	0.111
45	Same as 44, with Single Floor	0.177	0.106	0.089
46	Slate or Tile, Wood Lath and Plaster Ceiling, No Attic Floor	0.305	0.141	0.112
47	Same as 46, with Single Floor	0.180	0.107	0.089
	Floors:			
48	1" Yellow Pine on Joists	0.440	0.164	0.126
49	13/16" Maple or Oak Flooring on 1" Yellow Pine on Joists	0.339	0.148	0.116
50	Same as 49 with ¾" Matched Ceiling Boards Below	0.270	0.133	0.107

*Applied with one air space.
†Applied with two air-spaces, except where noted.
**Plastered Direct.
‡Figured on basis of ½ pitch roof; sufficiently accurate for roofs of ¼ to ½ pitch.