Specification Sheet

Havelock Wool

Havelock Wool Loose-fill Insulation

Benefits:

Air Filtration: this product filters and improves indoor air quality by absorbing VOCs and other harmful chemicals such as formaldehyde, NOx and SO2.

Moisture management: wool absorbs and desorbs relative to 65% relative humidity while regulating temperature.

Acoustics: wool inherently outperforms other mediums when reducing sound.

General: wool is a natural, high-performance insulation medium; it is renewable and sustainable; compostable following an extended useful life and naturally self-extinguishing. The global trade is responsible for the sequestration of some 525,000 tons of atmosphere derived carbon. This is an insulation material you can be proud to have in your walls.

Basic Use:

Havelock Wool Loose-fill insulation is used in residential and commercial construction as a thermal and acoustic insulation medium. It can be used in open attic areas, enclosed walls, floors and ceilings.

Composition & Materials:

Havelock Wool Loose-fill insulation is 100% wool with no synthetic mix or chemical binders.

AVAILABILITY AND COST

Distributed and sold throughout the United States. For availability and cost, contact Havelock Wool on +1 775 971 4870 or info@havelockwool.com.

DURABILITY

Havelock Wool insulation will last the life of the structure.

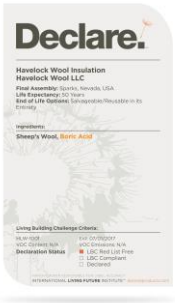
TECHNICAL DATA

Compliance:

Bureau of Electronic and Appliance Repair, Home Furnishings and Thermal Insulation

California Bureau of Thermal Insulation: License #T1500 / Registry #CA-T500

ASTM INTERNATIONAL



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Physical Properties:

Property	Performance	Test
Surface Burning	Flame Spread (Class A)	ASTM E-84
Fire Hazard	Smoke Developed (Class A)	ASTM E-84
Thermal Conductivity	Resistance Value – see chart below	ASTM C-518
Acoustics	Sound Absorption Coefficient – see below	ASTM C-423

Absorption Coefficients

125	250	500	1000	2000	4000	NRC
0.73	**1.01**	**0.90**	**0.91**	**1.01**	**1.01**	**0.95**

**The Noise Reduction Coefficient (commonly abbreviated NRC) is a scalar representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.*

COVERAGE CHART

The following thermal performance values are achieved at the thickness, weights and coverage specified when insulation is installed with pneumatic equipment. Havelock Loose-fill wool insulation is not dense packed; therefore, density is the same when installing in a vertical (wall) or horizontal (attic/between floors) application eg 0.33 lbs per s/f @ 3.5" or 1.13 lbs per cubic foot.

R Value	Bag Requirements	Max Coverage	Minimum Weight	Minimum Installed Thickness
To obtain thermal resistance of:	# of bags per 1000 sq ft	Contents of bag (25lbs) shall not cover more than: (sq ft.)	Weight per sq ft shall not be less than lbs / sqft:	Minimum thickness
7	6	162	0.15	1.6
11	10	103	0.24	2.6
13	11	87	0.29	3.0
15	13	76	0.33	3.5
17	15	67	0.37	4.0
19	17	60	0.42	4.4
22	19	52	0.48	5.1
24	21	47	0.53	5.6
26	23	44	0.57	6.1
28	25	41	0.62	6.5
30	26	38	0.66	7.0
34	30	33	0.75	7.9
38	33	30	0.84	8.9
40	35	28	0.88	9.3
41	36	28	0.90	9.6
43	38	26	0.95	10.0
45	40	25	0.99	10.5
47	41	24	1.03	11.0
52	46	22	1.14	12.1
54	48	21	1.19	12.6
56	49	20	1.23	13.1
60	53	19	1.32	14.0

INSTALLATION

General:

Installation procedures and techniques must be as recommended by Havelock Wool. Loose-fill insulation can be installed by hand though pneumatic blowing is recommended. There are various machines fit for installing wool. A typical insulation blower will not work. A commercial vacuum is recommended though the average DIYer may use a slightly retrofitted leaf blower. We recommend one found here and encourage you to visit our YouTube page here to learn more.

Consistency:

Simple math can be applied to measure and achieve proper density. For example, using the coverage chart above, one bag of loose-fill will cover 47 s/f of wall space where the cavity is 5.5" deep – or a standard 2x6. A standard wall height is 8 ft. Measure 6' across the wall and you will have an idea for where one bag of wool should be blown. (6 x 8 = 48)

Detailed:

There is an inner bag within the protective sleeve. Slice the sleeve off, leaving the inner intact. Introduce as much air as possible before removing from the bag and blowing the wool. The bag has been vacuumed for shipping efficiency and wool does not like compression. The more air introduced prior to blowing the easier the process. The same methodology should be employed if hand stuffing.

Video:

Havelock Wool Insulation maintains a Youtube page. It can be reached via google or by clicking on the link here.

SHIPPING

Shipping ranges from one bag to a truckload. We pay for the latter and anything less is charged to the customer. Pallets hold up to 18 bags and can be sent anywhere in the US or Canada. Global shipments are also available.

Our HS code for Canada is 5603.94 which is a duty-free classification.