



We are Healthy, High-Performance Insulation.

## BENEFITS OF HAVELOCK WOOL

### Improves Indoor Air Quality

Wool absorbs harmful chemicals such as formaldehyde, NOx and SO2.

### Manages moisture

Wool absorbs and releases moisture and will not support the growth of mold.

### Absorbs Sound

Wool exceeds other forms of insulation as an acoustic buffer.

### Improves the Environment

Wool is sustainable, renewable and removes carbon from the atmosphere.

### Basic Use

Havelock Wool is used in residential and commercial construction as thermal and acoustic insulation. It can be used in open attic areas, enclosed walls, floors, ceilings, basements and crawl spaces.

### Composition & Materials

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

### Availability

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

### Durability

Havelock Wool insulation will last the life of the structure.

### Shipping Details

Loose Fill bags are 48"x15"x15" @ 25 lbs each. Pallets are 48"x48"x96" @ 600lbs each and contain 21 bags. R13 and R20 batt bags are 48"x36"x16" @ 26lbs each. Pallets are 48"x48"x96" @ 375lbs and contain 12 bags. Pallets are typically shipped via less than truckload (LTL) third party carriers on a semi-truck. Deliveries with a liftgate to residential addresses are more expensive than to commercial addresses with loading docks. Please specify your needs when inquiring about shipping.

### Warranty

50 year warranty against material defect; product to be of stated quality and R-value

### Certifications



## PRICES AND COVERAGE - LOOSE FILL INSTALLATION

### Loose Fill Insulation - \$120 per bag



R Value	Thickness	S/F per Bag	Retail Price per S/F
15	3.5"	77	\$1.58
24	5.5"	48	\$2.48
31	7.25"	38	\$3.27
40	9.25"	29	\$4.18

### General

Installation procedures and techniques must be as recommended by Havelock Wool. Loosefill 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. Please visit our YouTube page 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 48 s/f of wall space where the cavity is 5.5" deep – or a standard 2x6. A typical wall height is 8'. 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 compression sleeve. Slice the sleeve off leaving the inner bag intact. Introduce as much air as possible before removing from the bag and blowing the wool. The more air introduced prior to blowing the easier the process. The same methodology should be employed if hand stuffing.

### Link to Helpful Videos

Visit Havelock Wool Insulation's YouTube page for useful videos.  
[Visit our YouTube page.](#)



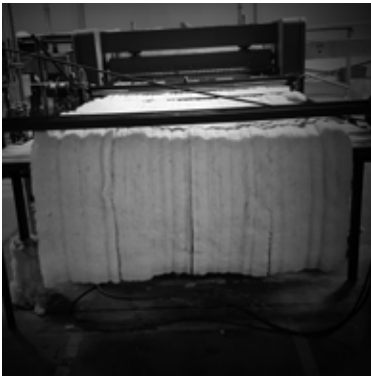
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## LOOSE FILL COVERAGE CHART

The following thermal performance values are achieved at the thickness, weights and coverage specified when insulation is installed with pneumatic equipment. Havelock Loosefill 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 Requirement	Max Coverage	Minimum Weight	Minimum Installed Thickness	Price per S/F
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 S/F:	Minimum thickness	
11	10	103	0.24	2.6	<b>\$1.16</b>
13	11	87	0.29	3.0	<b>\$1.37</b>
15	13	76	0.33	3.5	<b>\$1.58</b>
17	15	67	0.37	4.0	<b>\$1.79</b>
19	17	60	0.42	4.4	<b>\$2.00</b>
22	19	52	0.48	5.1	<b>\$2.32</b>
24	21	47	0.53	5.6	<b>\$2.53</b>
26	23	44	0.57	6.1	<b>\$2.74</b>
28	25	41	0.62	6.5	<b>\$2.95</b>
30	26	38	0.66	7.0	<b>\$3.16</b>
38	33	30	0.84	8.9	<b>\$4.00</b>
40	35	28	0.88	9.3	<b>\$4.21</b>
43	38	26	0.95	10.0	<b>\$4.53</b>
45	40	25	0.99	10.5	<b>\$4.74</b>
47	41	24	1.03	11.0	<b>\$4.95</b>
52	46	22	1.14	12.1	<b>\$5.48</b>
54	48	21	1.19	12.6	<b>\$5.69</b>
56	49	20	1.23	13.1	<b>\$5.90</b>
60	53	19	1.32	14.0	<b>\$6.32</b>

## PRICES AND COVERAGE - BATT INSTALLATION



### Batt Insulation - \$120 per bag

R Value	Thickness	Width	S/F per Bag	Retail Price per S/F
7	2"	16" O/C	125	\$0.96
13	3.5"	16" O/C	90	\$1.33
20	5.5"	16" O/C	60	\$2.00

24" O/C batts are available. Price per s/f is the same though bag coverages vary. Please call for specifics.

### General

Installation procedures and techniques must be as recommended by Havelock Wool. Batt's are typically cut at 48" and may need to be stretched slightly upon removal from packaging. Unfaced batts are applied with friction. A staple may be added at the installer's discretion. Wire may be used in a ceiling joist or with steel framing.

### Consistency

Batt's are made with a needle punch; there is no bonding agent. This proves useful in installation as batts are somewhat malleable, as opposed to rigid and difficult to manipulate. This softer texture does require a bit of care in handling. Installers should be careful to grab the whole batt with an emphasis on the needled side, which should face out from the cavity.

### A quick note on reloff

Wool does not appreciate compression. Clearly we need to use some in our packaging and shipping efforts. Each of our batts are the desired height when they are born. We have never seen a batt not regain its loft over time. Environmental conditions eg moisture levels can impact the process.

### Detailed

Slice the bag open from top to bottom. Grab a grouping of batts and remove them from the bag; do not pull batts from the bag one at a time. Place as desired in the cavity with no gaps; apply a staple or 'lightning rod'. For simple cutting source a blade from bullet tools called the CenterFire Insulation Knife Kit. A link is [here](#).

### Link to Helpful Videos

Visit Havelock Wool Insulation's YouTube page for useful videos.  
[Vist our YouTube page.](#)

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

## TECHNICAL DATA

### Physical Properties

Property	Performance	500
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

### Sound Absorption Coefficients

#### Batts

125	250	500	1000	2000	4000	NRC
.72	0.94	0.91	0.85	0.93	0.98	0.90

#### Loose Fill

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.