

Installed Insulation Density Calculation

a) Wall width or length in inches = (feet x 12 inches/foot) =

a)	in
----	----

b) Wall height in inches =

b)	in
----	----

c) Gross wall square inches = $a \times b =$

c)	in^2
----	---------------

d) Square inches of windows and doors in wall =

- Multiply opening width by opening height (use space below for drawings)

- Total square inches of all openings =

d)	in^2
----	---------------

e) Net wall in square inches = $c - d =$

e)	in^2
----	---------------

f) Wall depth in inches =

f)	in
----	----

g) Net wall cavity cubic feet to be insulated = $\frac{\text{in}^3}{1728 \text{ in}^3 / \text{ft}^3} = \frac{e \times f}{1728} =$
Adjusted for windows and doors

g)	ft^3
----	---------------

h) Net wall cavity cubic feet adjusted for framing = $g \times 0.85 =$
Adjusted for framing materials

h)	ft^3
----	---------------

i) Pounds of insulation installed in cavity (see line "h") =

i)	lbs
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j) Pounds per cubic foot of insulation = $\frac{\text{Pounds of insulation}}{\text{Cubic feet to be insulated}} = \frac{i}{h} =$

j)	lbs / ft^3
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Recommended Insulation Density, lbs/ft ³			
Insulation	Wall	Attic	
	Dense Pack	Site-Built	Mobile Home
Cellulose	3.25 – 3.75	Man. Recommendations	N/A
Fiberglass	1.6	N/A	1.6

Installed Insulation Density Calculation Example

a) Wall width or length in inches = (feet x 12 inches/foot) =

a) 240 in

b) Wall height in inches =

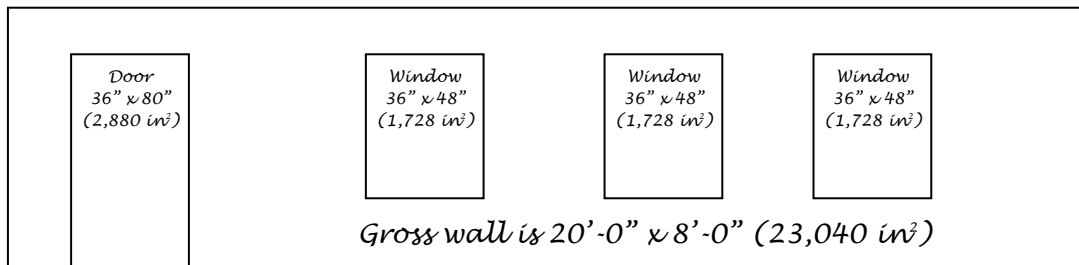
b) 96 in

c) Gross wall square inches = $a \times b =$

c) 23,040 in²

d) Square inches of windows and doors in wall =

- Multiply opening width by opening height (use space below for drawings)



- Total square inches of all openings =

d) 8,064 in²

e) Net wall in square inches = $c - d =$

e) 14,976 in²

f) Wall depth in inches =

f) 3.5 in

g) Net wall cavity cubic feet to be insulated = $\frac{\text{in}^3}{1728 \text{ in}^3 / \text{ft}^3} = \frac{e \times f}{1728} =$
Adjusted for windows and doors

g) 30.33 ft³

h) Net wall cavity cubic feet adjusted for framing = $g \times 0.85 =$
Adjusted for framing materials

h) 25.8 ft³

i) Pounds of insulation installed in cavity (see line "h") =

i) 90 lbs

j) Pounds per cubic foot of insulation = $\frac{\text{Pounds of insulation}}{\text{Cubic feet to be insulated}} = \frac{i}{h} =$

j) 3.5 lbs/ft³

Recommended Insulation Density, lbs/ft ³			
<i>Insulation</i>	<i>Wall</i>	<i>Attic</i>	
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Required Bags of Insulation for Specified Density

a) Wall width or length in inches = (feet x 12 inches/foot) =

a)	in
----	----

b) Wall height in inches =

b)	in
----	----

c) Gross wall square inches = $a \times b =$

c)	in^2
----	---------------

d) Square inches of windows and doors in wall =

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- Total square inches of all openings =

d)	in^2
----	---------------

e) Net wall in square inches = $c - d =$

e)	in^2
----	---------------

f) Wall depth in inches =

f)	in
----	----

g) Net wall cavity cubic feet to be insulated = $\frac{\text{in}^3}{1728 \text{ in}^3 / \text{ft}^3} = \frac{e \times f}{1728} =$
Adjusted for windows and doors

g)	ft^3
----	---------------

h) Net wall cavity cubic feet adjusted for framing = $g \times 0.85 =$
Adjusted for framing materials

h)	ft^3
----	---------------

i) Insulation density required (see table below) =

i)	lbs/ ft^3
----	--------------------

j) Pounds of insulation required = Ft³ of wall \times density = $i \times h =$

j)	lbs
----	-----

k) Pounds per bag of insulation =

k)	lbs/bag
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l) Bags of insulation required = $\frac{\text{Lbs of insulation required}}{\text{Lbs per bag of insulation}} = \frac{j}{k}$

l)	bags
----	------

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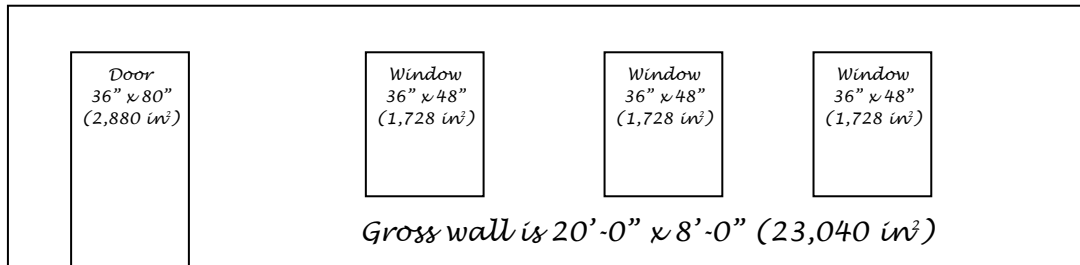
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g) 30.33 ft³

h) Net wall cavity cubic feet adjusted for framing = $g \times 0.85 =$
Adjusted for framing materials

h) 25.8 ft³

i) Insulation density required (see table below) =

i) 3.5 lbs/ft³

j) Pounds of insulation required = Ft³ of wall \times density = $i \times h =$

j) 90.3 lbs

k) Pounds per bag of insulation =

k) 15 lbs/bag

l) Bags of insulation required = $\frac{\text{Lbs of insulation required}}{\text{Lbs per bag of insulation}} = \frac{j}{k}$

l) 6 bags

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