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The Draft Master Attic Stairway Insulator

Product Data Sheet



Description

The Draft Master by The Attic Depot is comprised of double radiant foil. This radiant foil is known to reflect away up to 95% of radiant heat. When installed in an attic stairway opening, The Draft Master will reflect heat away from the attic opening, while completely sealing the gaps along a traditional attic door.

R-Value

R-Value for double bubble radiant foils depend on the application and installation. When installed properly in the attic access opening, The Draft Master boasts an R-Value of 15.2. This is because when installed, The Draft Master creates a sealed dead air space beneath it of 12-14". Each inch of sealed dead air space has an R-value of 1.2

Use

The Department of Energy states that a 1/4" gap around the attic ladder can leak as much air as a standard bedroom air vent which equates to approximately 6,000 BTUs of energy loss. With an average kilowatt cost of \$.15, the average yearly savings by sealing the attic door is approximately **\$150. or \$12.50 per month.**

From The Department of Energy Website:

A home's attic access, such as an attic hatch, pull-down stairs, or knee-wall door, often goes uninsulated, representing one of the biggest deficiencies in the thermal barrier between the attic and conditioned space. This gap in the attic insulation increases heat loss in winter and heat gain in summer, and makes indoor living areas uncomfortable. Unsealed, the attic access in a home leaks energy dollars & causes the home to be less comfortable.

Key Properties

Seals attic gaps
Fully installs VS sitting on top of door
Keeps dust and allergens out of the home
Reduces energy loss
R-Value 15.2

Testing

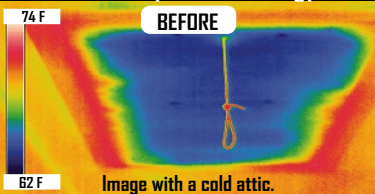
Thermal Performance ASTM C335
Thermal Conductivity & Resistance ASTM C518

Performance

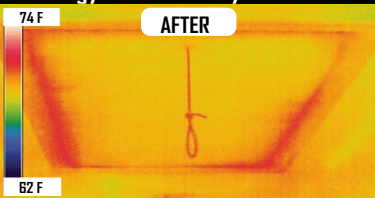
The Draft Master Attic Stairway Insulator is when installed properly is R-15.2 rated per ASTM C177 and helps reduce energy loss from the attic opening. The thermal imaging shows The Draft Master's effectiveness.

The Results Speak For Themselves

Without The Draft Master Installed
You Can Clearly See the Energy Loss!



With The Draft Master Installed
Energy Loss is Nearly Eliminated!



Helps Save Energy All Year Long.

Approximate Savings with The Draft Master

For this purpose, we will use a 1000 square foot attic.

If you have 1000 sq ft of total ceiling area, and you install R-38 insulation everywhere but the 10 sq ft of the attic pull-down stairs, you are left with 990 sq ft of R-38 and 10 sq ft of R-1. If you enter those numbers into the equation for the average U-value and then convert to average R-Value, you are now left with a total R-Value of only R-28. Because of that 1% that is uninsulated, the average R-Value for the whole attic dropped by 27%. The reason for this is that even though the attic door only accounts for 1% of the area, the rate that heat flows through them by conduction (per sq ft) is 38 times higher than in the insulated part of the attic. And that only takes into account the heat that flows through the solid material, not all of the heat that leaks through gaps around the edge. Here is the Formula:

$$\begin{aligned}
 &\text{Insulation R-Value} = \frac{1}{38} \times 990 + \frac{1}{1} \times 10 = 0.036 \\
 &\text{Total Attic Space} \quad U_{\text{avg}} = \frac{1}{1000} = 0.001 \\
 &R_{\text{avg}} = \frac{1}{U_{\text{avg}}} = \frac{1}{0.036} = 27.7\% \text{ R-value Loss}
 \end{aligned}$$

Labels in diagram: Insulated Area (990), Uninsulated Attic Door (10), Total Attic Space (1000).

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