Open Cell vs. Closed Cell SPF Insulation

Spray Foam Insulators specializes in the installation of Open Cell and Closed Cell SPF Insulation - including both petroleum and soy based products. The choice for which to use can depend on a variety of factors.

Open Cell SPF cells are not completely closed and air fills all of the "open" space inside the material. In Closed Cell SPF, all of the tiny foam cells are closed and packed together. They are filled with a gas that helps the foam rise and expand and create a greater insulator.



Open Cell example



Closed Cell example

We choose the type of SPF to be used based on the requirements for performance or application specific characteristics such as strength and vapor control. Some foams are inappropriate in specific applications. For example, you typically would not use open-cell foam below grade or in flotation applications where it could absorb water. Closed Cell SPF does not allow water to pass through it, and is approved by FEMA (Federal Emergency Management Agency) as a flood-resistant material. Closed Cell SPF would also be a good choice where small framing sizes need added structural integrity and the greatest Rvalue per inch possible. The disadvantage of the Closed Cell foam is that because it is denser, it requires more material and is therefore more expensive. Open Cell SPF has an R-value around 3.5 per inch and typically uses water as the blowing agent. Closed Cell SPF has an R-value of around 7.14 per inch and uses high R-value blowing agents. Even though it has a better R-value, typically the cost per R is higher than open-cell foam.

Based on our evaluation of your project, we will help you determine the best and most cost-effective solution. <u>Request a Free Quote</u> today.