



Attic Retrofit: Spray Foam Insulation Guidelines

Unvented Spray Foam Attic Retrofit

- **HVAC Systems:** Creating an unvented attic enclosure changes the ways a home's system conditions the air. It is suggested to have a licensed HVAC professional assess the changes to determine if the new building envelope will require any HVAC adjustments to compliment the spray foam insulation retrofit.
- **Combustion Air:** Adding spray foam insulation to the roof decking eliminates the thermal envelope and pressure boundary from the ceiling (drywall) and raises it to include the entire area of what once was the vented and unconditioned attic. There may be open combustion appliances now located within the new thermal and pressure envelope. The appliances must be moved to a location outside of the thermal/pressure envelope or modified to a closed combustion system. Consult a licensed HVAC specialist for more information and guidance on this subject.
- **Other Ventilation:** Sewage vents, bathroom vents, kitchen range vents, and other passive and mechanical vents may have been installed short, exhausting their contents into the unconditioned attic space (common in older homes). Where this occurs, the vents should be extended to exhaust their contents to the building's exterior before spray foam insulation is installed. Ridge vents, soffit vents, roof hawks, whirly birds and other vents are generally not necessary in an unvented SPF attic system.
- **Existing Insulation:** Pre-existing insulation (cellulose/fiberglass) located above the ceiling should be considered for removal before spray foam insulation is installed to the roof decking. If this pre-existing insulation is not removed it creates a thermal barrier between occupied spaces and the now insulated attic. This can cause higher variances in temperature and moisture content within the attic area. Loose insulation located near the soffit can also block or mix with the SPF insulation. This can lead to a mixture of SPF and (fiberglass/cellulose), resulting in inconsistent sealing and continued air leakage. Finally, as the attic is sealed with spray foam insulation, the existing loose blown insulation and its contaminants (dust, bugs, smells, rodent activity etc) are now sealed inside the envelope (sealed inside the house).
- **Pre-Existing Issues:** Issues such as a leaking roof, moisture buildup and framing integrity must be corrected before spray foam insulation is installed. Adding spray foam insulation is not a corrective measure to many of these issues, and the root causes must be determined and fixed before spray foam insulation is installed.
- **Attic Storage:** In certain scenarios, codes require spray foam insulation to be covered by an approved fire barrier. When it is intended for attics to be used as storage space, the spray foam insulation must be covered by a fire barrier per code.
- **Building Occupants:** With all spray foam insulation projects, only individuals equipped with the required personal protective equipment should be allowed in the building during SPF installation. Occupants of the building should not re-enter until 24 hours after the install is completed. This time is used to allow the insulation to fully cure and the building to ventilate. This being said, it is also best practice to allow other trades to resume/begin their work after only 12 hours post SPF install.