

**WHITE PAPER ON FOAM INSULATION**  
**TEXAS PROFESSIONAL REAL ESTATE INSPECTORS NEWSLETTER**  
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**Foam Insulation and Sealed Attics – One of the Major Texas builders is now using this consistently and touting the benefits...but for inspectors...**

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Have you ever encountered an attic which has sprayed foam applied to the underside of the decking? Then you notice that the foam extends into the cavity between the rafters at the top plate effectively sealing the attic. The bare drywall showing between the joists really looks weird and out of place doesn't it?

Most folks in Texas are accustomed to seeing turbines or ridge vents or gable vents or the other varieties of attic venting. Most have also heard that venting attics is important for controlling moisture and heat in those attics.

So what do you do when you encounter a foamed attic as an inspector?

The first presumption is that you are only permitted to perform a noninvasive inspection.

Foam, for this use, comes in open cell type (R-3.4) and closed cell (R-6.6) assuming that it is applied properly. So

**#1, you do not know how much (thickness) is supposed to be applied.**

**#2, you probably don't know if this is the proper foam to use in this application.**

**#3, you certainly don't know what the flame spread rating and smoke density rating is of this stuff you are looking at either.**

**#4, you don't know if the foam has an R rating**

**#5, you do not have the installation specifications either**

**#6, you cannot confirm that the attic is actually sealed**

**#7, you do not know the manufacturer's recipe so you don't know what chemicals are mixed in**

**#8, you don't know if the foam is even an insulating material**

OK so we may have a sealed attic with some foam stuck to the decking and no insulation on the attic floor. It seems like a cavern. The attic is not air conditioned so in humid conditions water vapor seeks to even itself, as heat moves to cold, that is to say that humid air seeks dry air so that equilibrium can be established. You also cannot tell if there is a radiant barrier above the foam.

**#9, you do not see any dehumidification going on in this space**

**#10, you feel the heat of the attic and wonder if this space should have air flow**

From experience you know that water “wants” to come inside. Roof leaks are very common and can show itself far from the actual intrusion point.

**#11, you cannot tell if there are any leaks.**

**#12, further if there is intrusion especially from a storm where the attic is opened, what should you say to your client about this.**

**#13, you cannot see damaged or rotted decking.**

**#14, openings at the flashings.**

**#15, you cannot ‘count’ the nails per shingle.**

**#16, you cannot tell if the roof covering is nailed or stapled....or size of fasteners.**

Now think about an attic and sealing an attic, is this even possible in a perfect world? We know construction is not and cannot be perfect so likely there will be air leak points. So with heating and cooling also humid and dry air, air is likely going to be coming and going/

**#17, you know what happens when air filled to moisture would be jetted thru foam, remember EIFS? Likely this would lead to mold and mildew?**

OK you look around the attic and notice a gas furnace and gas water heater in the attic. The attic appears to be sealed but you know that both appliances need both combustion and a drafting air source. So if there is an intake vent then the attic is not sealed and needs both dehumidification and air flow, if there is not an intake then.....

**#18, you know gas appliances must have an air source**

**#19, where does the fireplace get its air source for combustion and drafting air?**

**#20, what happens when the air runs out...to the appliances...to you if you are in the attic?**

From email questions to various shingle manufacturers, they are not voiding shingle warranties when used with foam at this time. But the contacted companies are uncomfortable with the installation of foam.

**#21, are the shingles going to have a normal shingle life, not withstanding hail etc., read their warranties thoroughly.**

One final note, none of the foam manufacturer’s prescribed foaming as a retrofit measure. It fact they cautioned against it.

We don’t have all the answers, and neither do you when you enter such an attic. Above are a few things that you might want to address for the sake of your client. Just something to think about inspectors!

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