

# Can I add new asphalt shingles over one inch of foam insulation?

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Kara lives in BC and has foam insulation over her roof with shingles over the foam. She wants to put on new shingles and questions having them right over the foam. You are right to question that application. The first problem is that shingling nails that have to go through an inch of foam will not hold the shingles well against high winds. You need roofing sheathing (plywood or OSB) to nail the shingles to. Now the question becomes, can you put the plywood directly on the foam, or should there be an air space. If there was absolutely no moisture that could get trapped between the insulation and the sheathing, you could get away without that air space. But in an older house that is probably not the case. Putting strapping over the insulation first gives you something solid to nail your plywood to and continuous ventilation from the roof edge up to a ridge vent across the top. Perhaps most importantly, this air space not only helps to remove any moisture build-up from below the sheathing, it also will allow the shingles to cool from the backside during a hot summer afternoon. Although asphalt shingles do wear with age, they don't fail from exposure to continuous sunshine, they fail by hitting peak temperatures for just a few minutes in the worst part of the hottest day of the year. These peak temperatures could get high enough to melt the asphalt and allow it to flow out from under the protective granules. That will never happen if there is ventilation below the roof deck. That can easily happen if the shingles are sitting directly on insulation and the heat is trapped. Why not profit by adding two if not four inches of foam insulation over this house, all held on by strapping and then put on that new roof. Increasing insulation is inexpensive during renovations when you are changing the roofing anyway.

**Keywords:**

Strapping, Asphalt, Insulation, Shingle, Ventilation, Roof