Regal
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"INSULATION THAT WORKS!"

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RETROFIT PRECAUTIONS

ADDING THERMAL INSULATION TO CAVITIES WITH ELECTRICAL BRANCH CIRCUITS WITHIN REQUIRES CAUTION.

The hazards of adding thermal insulation over the top of non-IC-rated can lights is well known. There is a similar problem with defective electrical wiring. This is generally not even considered. But adding thermal insulation to a cavity that has defective wiring could result in fire. Since the thermal insulation will retain the heat generated by the defective wire, that heat buildup can ignite surrounding combustibles such as tape, plastic connectors, wiring insulation, wood studs or joists, etc.. So it is possible to have a wire that is border-line in a non-insulated cavity become a problem with retrofit thermal insulation addition.

The heat generated by flowing electricity varies directly with the wires resistance and the square of the current flow. A corroded or loose connection can increase the resistance significantly. A home owner may randomly choose to add another load to the circuit. Both these scenarios could add up to an unsafe condition in a previously border line electrical wire.

HOW CAN THE RETROFIT INSULATION INSTALLER KNOW WHEN THERE IS A DEFECTIVE CIRCUIT IN A CAVITY?

According to the National Electrical Code, if the drop in voltage under a 15 AMP load is greater than 5%, the electrical circuit may be defective. Some city weatherization programs (retrofit thermal insulation) use a 10% voltage drop to ascertain if it is okay to insulate a cavity which has an electrical circuit within. If a circuit flunks, they have an electrician to replace it prior to insulating.

There are many circuit wiring analyzers available to ascertain good wiring. Fluke, Ideal, UEI are some manufacturers. The cost is about $200.00. Any electrical supply house could order them for you. Most electricians will have one in their toolbox.