Sadler Coating Systems

Category: Residential Wall Foam

Installer: Scott Sadler and Dennis Vandewater
Square footage of Job: 6000 square feet

Equipment Used: Gusmer 20/35 Pro proportioner with GX7 spray gun
Number of people needed for the Job: 2 men
Number of days required by the Job: 6 days
Special Requirements: up to 21’ work height, winter application
Foam and coatings used: BASF 2.0 lb. foam

Project Description:
When the owner began construction of his new home in late fall of 2006, he had done his homework when he specified closed cell SPF. He was very much hands on in the daily decisions during his new home construction. He called Sadler Coating Systems in late December 2006 for a price quote on applying spray polyurethane foam insulation to initially all the exterior walls of the new home. Some of the unique features of the home included the 21’ high entry and formal living room, domed ceiling in master bath with jacuzzi, home theater, finished basement for recreation with kitchen and separate home theater room. Additionally, the new home was to be heated and cooled using geothermal technology.

After being awarded the project, Sadler Coating Systems was faced with a few challenges. For one, the spray application began in January 2007 amidst a very cold Iowa winter and the geothermal system was not operational. The structure was enclosed but being heated with only temporary portable heaters with outside temperatures between 15 and 30 degrees. Second, not all of the home would be ready for the insulation application at the same time - the installation would need to be done in stages as the other trades completed their work. The plan was to have enough of the walls ready for a least a days work for the spray foam crew. And finally, the entry and living room had 21’ high walls that required scaffolding.

Sadler Coating Systems began the project by masking off all windows and doors covered, floors and taped the faces of all outlet wall boxes. Scaffolding was setup in the entry / living room area. A full 4 inches of 2.0 lb. spray foam was installed between the 2”x6” wall studs with OSB sheathing as the backer and the box sills between floors and ceilings. As work progressed, the client additionally specified 6 inches of foam insulation in the domed ceiling master bath/jacuzzi room and ceiling of the kitchen bay window. A 3 inch average of foam was sprayed between bathroom and kitchen plumbing walls, plumbing pipes in the basement ceilings, and the walls in the home theater room, all for sound deadening. The insulated foam trailer containing all the spray foam materials and equipment was heated to keep all materials to proper temperature. Full face respirators with fresh air feed were utilized with protective gloves and coveralls. Other trades were not allowed into the spray areas during foam application.

Benefits of using Foam:
The client had already anticipated the benefits with the air seal, high R value, and moisture barrier using spray polyurethane foam over other insulation materials but really appreciated how the spray foam sealed “every nook and cranzy” in his new home.

The foam installation was staged over several days and worked easily around the other trades. The benefit of a range of foam reactivities in selecting a colder weather foam system formulation made the spray installation much easier.

Even during the current tough Iowa winter where outside temperatures were below zero for several days, the highest monthly heating bill for the new 6000 square foot home was only $102.00.

As a footnote: the client was so impressed with the benefits of spray polyurethane foam that Sadler Coating Systems installed another 9,000 lbs. of spray foam to the walls of a new metal building addition at his trailer manufacturing facility, only 3 months after insulating his new home.

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