

Making the Switch: Roofer and Roof go to Coatings

By Claire Trageser on 10/28/2014 4:44 PM



Photos courtesy of GAF

After finishing a coatings job on a roof, the last thing you want to get is a call about a leak. But that's exactly what happened to Chad Conley after a recent job on a roof in



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Georgia. As it turned out, though, it wasn't a fault of his coating application. In fact, his crew apparently did too good a job sealing the roof.

"After the application was complete, we received a call about a leak," said Conley, the executive vice president and chief financial officer of Canton, Georgia-based Complete Roofing Systems, Inc. & Complete Restoration Group, Inc. "This was a concern, as the building roof protects about \$500,000 of printing equipment. It turned out that it wasn't a roof leak. It appears we sealed this building so air tight, that condensation had become an issue around several skylights," he said. "It had been a particularly cold night, and the skylights were the only areas that were not insulated, so naturally hot inside air hitting that cold surface caused condensation and some dripping. A large ceiling-mounted fan to stimulate air movement inside the building was the easiest solution."

This superior coating job is even more impressive considering it was Conley's first foray into coating. He's been in business since October of 2008, has been in the Master Elite program since 2011, and had been interested in coatings for several years.

"However, we are a needs-based business," Conley said. "If a project has a particular application that is best suited for it, then that's what we do. Up to this point we really had not been presented with a project that had such a need."

Then came this job: a 16,461-square-foot (1 529 m²) re-roof.

Intro to Coatings

"It started out as a hail damage claim that was paid out for full roof replacement," said Conley. "We worked with the insurance company as the owner's representative. The roof was only cosmetically damaged (the hail damage was not significant). However, when we met with the property owner they expressed an extreme concern about exposing their equipment to moisture. When we assured them that we would take every precaution to ensure water would not get into the building, they went on to say that even humidity could shut down the equipment."



To Conley, that meant it was time to try his hand at coatings. “As soon as we heard this, we knew this job would be a great coatings job,” he said. “We could provide a watertight roofing system with a factory 20-year NDL [No Dollar Limit] warranty all without ‘opening’ the roof.”

He went with GAF’s TOPCOAT Elastomeric Roofing Membrane with Ridge Cap 223 LF, Wall Flashing 162 LF, and Rake Trim 364 LF. Using a Graco GH833 with Direct Immersion Kit, his five-person crew applied three coats for a total average of 24 mils (610 microns).

“The TOPCOAT option met all the owner’s needs while providing a highly reflective finish to help cool the building,” Conley said. “It was a win-win for both of us.”

Temperature Trade-Offs

The job took 10 days to complete, although it could have been shorter. “We applied this roof during one of the rainiest summers Atlanta has seen in many years,” Conley said. “Even with the onslaught of pouring rain day after day, we managed to get this system installed.” That’s because

GAF’s TOPCOAT “is very forgiving to work with,” he said.



The crew used a Graco spray rig on a stand and ran two spray guns off of it. It was “powerful enough to push the coating through at the desired consistency; it is much more labor efficient than applying the coating with a squeegee,” Conley said. “A big Graco rig with a two gun system got two guys working. Once you do get a workable

surface, you can really cover a lot of roofing,” Conley said. “This product goes down really well; you can tell immediately there are a lot of solids in the formulation.”

The rig setup also helped with one of the biggest challenges of the project: time limitations. The crew needed three hours of direct sunlight before any moisture could hit the newly-coated roof. “Can’t just be daylight — needs to be direct sunlight,” Conley said.

In the summer, it will get dark at 9 p.m., which means you can’t spray until 6 p.m. “If you have rain coming in 9:30 that night...the rain’s going to hit it. It’s water based; it’s going to wash off,”



Conley said. “So you stop spraying at 3 p.m. By 6 p.m., again under summertime conditions in Atlanta, you’ve had about 3 hours of direct sunlight on that coating to ensure it is dry enough.”

On top of that, the roof couldn’t be too hot. Conley’s crew needed the roof surface to be below 120° F (49° C) before they could hit it with the coatings.

“The problem on a darker-colored metal roof under direct sunlight, the roof surface can heat up to 140–160° F [60–71° C],” Conley said. “So what we did was wet the roof down with a hose, and follow that up with a leaf blower and it evaporates the water and cools the surface to a temperature where you can spray. So you have a guy with a water hose, followed by another with a backpack blower, and then you’re coming right behind them with the spray gun.”

That system worked perfectly. Once the first coating was down, the reflective white coating meant heat was no longer a factor. “However, once it’s white and morning comes around, you get dew on the roof surface,” Conley said. “So now you’re fighting to get moisture off the roof instead of cooling it off. We used a large wide-brimmed squeegee that would wipe the water off the surface and bottom of the metal ribs and followed that up with a leaf blower to get some air movement over the roof surface.” It was quite the temperature balance for sure!

Great Results

All of crew’s hard work paid off, and gave Conley a new view of roofing. “Roofing contractors tend to take a hammer-and-nail approach to roofing,” he said. “The roof has a leak (the nail) and the roofer has a ‘solution’ (the hammer). Problem is, we as contractors tend to get into ruts and want to fix everything we see using the methods we are most comfortable with. In reality, some jobs have unique circumstances in which coatings can provide the best solution. Having the ability to address these issues adds an arrow to the contractor’s quiver.”

Plus, there’s one more factor Conley is happy to consider: “the margins on these types of jobs are very good,” he said. Happy customer and happy applicator make for one great job.